

**G.S. Kostiuk Institute of Psychology
of the National Academy of Educational Sciences of Ukraine**

Edited by Academician
Serhii Maksymenko

PSYCHOLOGY AND PEDAGOGICS

VOL. 1

Recommended by the Ministry of Education and Science of Ukraine
as a text-book for the students of the higher educational establishments

Kyiv
2024

UDC 159.9:37.015.3(075.8)

P86

*Recommended by the Academic Council of the G.S. Kostyuk Institute
of Psychology of the National Academy of Educational Sciences of Ukraine
(No 12 of 31.10.2024)*

Reviewers:

O.F. Bondarenko – academician of the National Academy of Educational Sciences of Ukraine, Dr. of Psychology, professor;

J.M. Shwalb – Dr. of Psychology, professor;

I.S. Bulakh – Dr. of Psychology, professor.

Contributors: S.D. Maksymenko: Chapter 1: Topics 1–3, 4, 6, 12–14, 17–19; Chapter 2: Topics 1, 4; K.S. Maksymenko: Chapter 1: Topic 2; Chapter 2: Topic 4; O.O. Lazurenko: Chapter 1: Topics 7, 15; Chapter 2: Topics 1, 4; O.M. Shportun, O.M. Nemesh: Chapter 1: Topics 13, 16; Chapter 2: Topics 6–7; L.O. Shatyрко, L.V. Dzyubko: Chapter 2: Topics 2, 3–5; (L.O. Shatyрко: Additional Topic 6); L.A. Tereshchenko, H.V. Savchenko: Chapter 2: Topics 2, 4–5; (H.V. Savchenko: Chapter 1: (Topic 10), Part 5 (Topic 16)); V.M. Nevmerzhytskyi: Chapter 1: Topic 5; Chapter 2: Topics 4, 5, 8; O.D. Hryshko: Chapter 1: Topics 5, 3, 6, 4, 10, 12; O.V. Tarnavska: Chapter 1: Topic 15; Chapter 2: Topics 5–6; Yu.B. Irkhin: Chapter 1: Topics 6, 14; Chapter 2: Topic 5; A.U. Esmakhanova: Chapter 1: Topic 8; N.O. Bondarenko: Chapter 1: Topic 3; O.O. Kucherenko Chapter 1: Topic 7; D.O. Mosharov: Chapter 1: Topic 6.

Serhii D. Maksymenko, Ksenia S. Maksymenko, Olena O. Lazurenko, Oksana M. Shportun, Olena M. Nemesh, Larysa O. Shatyрко, Liudmyla V. Dziubko, Liudmyla A. Tereshchenko, Volodymyr M. Nevmerzhytskii, Hanna V. Savchenko, Oleksandr D. Hryshko, Olena V. Tarnavska, Yurii B. Irkhin, A.U. Esmakhanova, N.O. Bondarenko, Oleksandr O. Kucherenko, Dmytro O. Mosharov

P86 Psychology and Pedagogics: text-book. Vol. 1. Kyiv: Liudmyla Publishing House, 2024. 708 p.

ISBN 978-617-555-242-1

The textbook "Psychology and Pedagogy" presents the principles of the normative course of psychology and pedagogy. It analyzes the correspondence to mental processes, mental activity, emotional-volitional sphere, and individual personality traits. Aspects of personality psychology, group psychology, and communication psychology are examined. Methodology is explored extensively, covering the application of worldview principles from theory to practice and creativity.

The modern development of technologies creates new challenges for creative thinking and youth personality formation. As G.S. Kostiuk once predicted, practical activity serves as the foundation capable of rethinking established approaches to education and creativity. However, the rapid implementation of technologies leaves many open questions requiring methodological understanding. Today, the key task is to find methods that can stimulate the creative development of individuals in a technological environment.

Research conducted within the framework of cultural-historical theory confirms the importance of a genetic approach that takes into account self-development and the dynamics of creativity. The experimental-genetic method allows isolating genetic-primal units within genetic programs, which constitute entire classes of educational tasks. Creativity development cannot be confined to traditional stimulus-response models or simplified algorithm use.

To encompass the full spectrum of culture, principles of a genetic-modeling method were developed, based on:

1. Unit Analysis Principle – isolating the initial contradictory relationship generating a class of phenomena as a whole;
2. Historicism Principle – unity of genetic and experimental lines in research;
3. Systematic Principle – a holistic view of mental formations;
4. Projection Principle – active modeling and reproduction of mental forms under specific conditions.

Unit analysis highlights the genetic-primal unit of personality – the need – as the informational and energetic property of humans expressed in life's expansion through ontogenesis and phylogenesis. The experimental-genetic method combines "unit analysis" with the genetic trajectory of scientific research, giving this analysis the status of scientific substantiation for the development of mental processes. This research approach led to all mental formations being considered as processes rather than static entities.

A series of specialized tasks at the end of each section ensures active and conscious assimilation of the educational material. Thus, the cornerstone of modern methodology for fostering creativity in the growing generation lies in the integration of the genetic-creative method, ensuring freedom of choice, stimulating independent thinking, and fostering harmonious coexistence between technology and human imagination.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher.

ISBN 978-617-555-242-1

URD 159.9:37.015.3(075.8)

© Serhii D. Maksymenko, Ksenia S. Maksymenko,
Olena O. Lazurenko et al., 2024

ПСИХОЛОГІЯ І ПЕДАГОГІКА

Том 1

*За загальною редакцією
академіка С. Д. Максименка*

*Підручник для студентів
вищих навчальних закладів*

Київ
2024

УДК 159.9:37.015.3(075.8)

П86

*Рекомендовано Вченою радою Інституту психології імені Г. С. Костюка
НАПН України (протокол № 12 від 31.10.2024 року)*

Рецензенти:

О. Ф. Бондаренко – дійсний член НАПН України, доктор психологічних наук, професор;

Ю. М. Швалб – доктор психологічних наук, професор;

І. С. Булах – доктор психологічних наук, професор.

Співавтори: С. Д. Максименко: Розділ 1: теми 1–3, 4, 6, 12–14, 17–19; Розділ 2: тема 1, 4; К. С. Максименко: Розділ 1: тема 2; Розділ 2: тема 4; О. О. Лазуренко: Розділ 1: тема 7, 15; Розділ 2: тема 1, 4; О. М. Шпортун, О. М. Немеш: Розділ 1: тема 13, 16; Розділ 2: теми 6–7; Л. О. Шатирко, Л. В. Дзюбко: Розділ 2: тема 2, 3–5; (Л. О. Шатирко: додатково тема 6); Л. А. Терещенко, Г. В. Савченко: Розділ 2: тема 2, 4–5; (Г. В. Савченко: Розділ 1: (тема 10), Частина 5 (тема 16)); В. М. Невмержицький: Розділ 1: тема 5; Розділ 2: теми 4, 5, 8; О. Д. Гришко: Розділ 1: тема 5, 3, 6, 4, 10, 12); О. В. Тарнавська: Розділ 1: тема 15; Розділ 2: теми 5–6; Ю. Б. Ірхін: Розділ 1: тема 6, 14; Розділ 2: тема 5; А. У. Есмаханова: Розділ 1: тема 8; Н. О. Бондаренко: Розділ 1: тема 3; О. О. Кучеренко: Розділ 1: тема 7; Д. О. Мошаров: Розділ 1: тема 6.

Максименко С. Д., Максименко К. С., Лазуренко О. О., Шпортун О. М., Немеш О. М., Шатирко Л. О., Дзюбко Л. В., Терещенко Л. А., Невмержицький В. М., Савченко Г. В., Гришко О. Д., Тарнавська О. В., Ірхін Ю. Б., Есмаханова А. У., Кучеренко О. О., Мошаров Д. О.

П86 Психологія і педагогіка: підручник. Том. 1. Київ: «Видавництво Людмила», 2024. 708 с.
ISBN 978-617-555-242-1

У підручнику Психологія і педагогіка викладено принципи нормативного курсу Психології і педагогіки. Проаналізовано відповідності психічним процесам, психічній діяльності, емоційно-вольовій сфері, індивідуальним особливостям особистості. Розглядаються аспекти психології особистості, психології групи та психології спілкування. Широко розглядається методологія- це застосування принципів світогляду у пізнанні від теорії до практики і творчості. Сучасний розвиток технологій створює нові виклики для креативного мислення та формування особистості молоді. Як колись передбачав Г.С. Костюк, саме практична діяльність виступає тим

фундаментом, що здатен переосмислити усталені підходи до навчання і творчості. Проте швидке впровадження технологій залишає чимало відкритих питань, які потребують методологічного осмислення. Сьогодні ключовим завданням стає пошук таких методів, які здатні стимулювати креативний розвиток індивіда в умовах технологічного середовища.

Дослідження, проведені в межах культурно-історичної теорії, підтверджують важливість генетичного підходу, що враховує саморозвиток і динаміку творчості. Через експериментально-генетичний метод який дає можливість вичленити генетично-вихідні одиниці в предметах генетичних програмах яка конституює весь клас навчальних задач. Розвиток креативності не може бути замкнутим у межах традиційних моделей стимул-реакції або спрощеного використання алгоритмів. Для того, щоб охопити всю палітру культури, ми розробили принципи побудови генетико-моделюючого методу який базується на принципах: 1) принцип аналізу за одиницями (вичленування вихідного суперечливого відношення, що породжує клас явищ як ціле); 2) принцип історизму (принцип єдності генетичної та експериментальної лінії у дослідженні); 3) принцип системності (принцип цілісного розгляду психічних утворень); 4) принцип проектування (принцип активного моделювання, відтворення форм психіки в особливих умовах). Принцип аналізу за одиницями і вичленити генетично-вихідну одиницю особистості – нужди – це інформаційно-енергетична властивість людини, яка полягає в експансії життя в онто і філогенезі. В експериментально-генетичному методі «аналіз за одиницями» поєднався з генетичним шляхом наукового дослідження, і в результаті цього даний аналіз набув статусу наукового обґрунтування розвитку психічних процесів. Такий підхід до дослідження привів до того, що всі психічні утворення як щось стали почали розглядатися як процеси. Серія спеціальних завдань наприкінці кожної частини забезпечує активне та свідоме засвоєння навчальної інформації. Таким чином, ключова ланка сучасної методології розвитку творчості зростаючого покоління полягає в інтеграції генетико-креативного методу, який забезпечує свободу вибору, стимулює самостійність мислення і сприяє гармонійному співіснуванню технологій та людської уяви.

Всі права захищені. Жодна частина цієї публікації не може бути відтворена, збережена в інформаційно-пошуковій системі або передана в будь-якій формі або будь-якими засобами, електронними, механічними, фотокопіюванням, записом або іншим способом, без попереднього письмового дозволу видавця.

ISBN 978-617-555-242-1

УДК 159.9:37.015.3(075.8)

© С. Д. Максименко, К. С. Максименко,
О. О. Лазуренко та інш., 2024

CONTENTS

PREFACE	11
UNIT I PSYCHOLOGY	
Chapter I	
INTRODUCTION TO PSYCHOLOGY	12
Part 1. Subject of Psychology	12
1.1. Subject of Psychology and Its Tasks	12
1.2. Reflex Psyche Nature	13
1.3. Psyche and Consciousness	21
1.4. Basic Branches of Psychological Knowledge	23
1.5. Psychology and Its Connection with Other Sciences	24
1.6. Basic Directions in Contemporary Psychology	24
Part 2. Psychology Methods	34
2.1. Basic Requirements to the Psychology Methods.....	34
2.2 Experimental-genetic method	35
2.3. Genetic-modelling method.....	55
2.4. Genetic-creative method	70
2.5. Basic Psychology Methods. Observation. Experiment.....	73
2.6. Additional Methods: Test, Questionnaire, Discussion, Activity Product Analysis. Generalization of Independent Descriptions, Self-evaluation	115
2.7. The tasks and functions of psychodiagnostical research	128
Part 3. Psyche and Consciousness Development	139
3.1. Psyche Origin and Development	139
3.2. Development of Psychic Activity Mechanism	140
3.3. Psyche Development at the Different Stages of Animal World Evolution	144
3.4. Origin and Historical Development of Human Consciousness.....	149
Chapter II	
PERSONALITY. SOCIAL GROUPS	152
Part 4. Personality Psychology	152
4.1. Traditional approach to the problem of personality structure	152
4.2. Meaningful personality traits	153

4.3. Personality development	170
4.4. Personality activity and its sources	176
4.5. The latest approach to the problem of personality structure	179
4.6. Personality and Its Structure.....	423
4.7. Personality Activity and Its Sources	425
4.8. Personality Development and Education	428
4.9. Orthobiosis in Human Development	482
Part 5. Social Groups	503
5.1. Concept of Groups.....	503
5.2. Interpersonal Relations in Group	505
5.3. Psychological Compatibility and Conflict in Interpersonal Relations	508
Chapter III	
ACTIVITY	514
Part 6. Activity Psychological Analysis	514
6.1. Concept of Activity	514
6.2. Activity Purpose and Motives	515
6.3. Activity Structure	516
6.4. Means of Activity and Process of Their Acquiring	517
6.5. Habits Transference and Interference	522
6.6. Principal Types of Activity	526
6.7. Creative Activity	531
Part 7. Language and Speech	536
7.1. Concept of Language and Its Functions.....	536
7.2. Physiological Mechanisms of Speech Activity.....	538
7.3. Types of Speech	542
Part 8. Intercourse.....	548
8.1. Concept of Intercourse	548
8.2. Intercourse Means	549
8.3. Intercourse Functions	552
8.4. Types of Intercourse	557
Part 9. Attention	562
9.1. Concept of Attention	562
9.2. Physiological Basis of Attention.....	564
9.3. Types and Forms of Attention.....	567
9.4. Attention Characteristics	571

Chapter IV

COGNITIVE PSYCHIC PROCESSES.....579

Part 10. Sensation.....579

10.1. General Characteristics of the Concept of Sensation.	
Cognitive Processes	579
10.2. Physiological Basis of Sensations	580
10.3. Classification and Types of Sensations	581
10.4. Basic Characteristics of Sensations	587
10.5. Sensation and Activity	590

Part 11. Perception.....594

11.1. Concept of Perception.....	594
11.2. Types of Perception	595
11.3. Perception Characteristics.....	597
11.4. Observational Learning and Observation	600

Part 12. Thinking

12.1. Concept of Thinking. Social Nature of Thinking	605
12.2. Mental Actions and Thinking Operations	607
12.3. Forms of Thinking	610
12.4. Understanding Process	613
12.5. Tasks Solving Process	615
12.6. Types of Thinking	616
12.7. Individual Thinking Peculiarities	618

Part 13. Imagination

13.1. Concept of Imagination.....	623
13.2. Connection of Imagination with Objective Reality	624
13.3. Physiological Basis of Imagination. Imagination and Organic Processes	626
13.4. Process of Imagination Images Creation.....	627
13.5. Imagination Types	629
13.6. Imagination and Personality	632

Part 14. Memory

14.1. Memory Concept.....	636
14.2. Memory Theories	636
14.3. Memory Types	639
14.4. Memorizing and Its Types.....	640
14.5. Retrieval and Its Types	642
14.6. Forgetting and Its Reasons	643
14.7. Individual Memory Peculiarities	644

Chapter V	
EMOTIONAL AND VOLITIONAL PROCESSES.....	649
Part 15. Emotions and Senses.....	649
15.1. Concept of Emotions and Senses	649
15.2. Physiological Basis of Emotions and Senses.....	651
15.3. Emotions and Senses Expression.....	652
15.4. Forms of Emotions and Senses Experiences.....	653
15.5. Higher Senses	655
Part 16. Will	660
16.1. Concept of Will	660
16.2. Arbitrary Actions and Their Peculiarities	661
16.3. Analysis of Complicated Volitional Action	663
16.4. Main Will Qualities	665
16.5. Weak Will, Its Reasons and Overcoming	668
Chapter VI	
PERSONALITY INDIVIDUAL-PSYCHOLOGICAL	
PECULIARITIES	672
Part 17. Temperament	672
17.1. Concept of Temperament	672
17.2. Types of Temperaments	675
17.3. Basic Temperament Characteristics	677
17.4. Physiological Basis of Temperament.....	678
17.5. Role of Temperament in Human Activity	679
Part 18. Abilities	683
18.1. Concept of Abilities.....	683
18.2. Abilities Structure	685
18.3. Abilities Types	688
18.4. Individual Distinctions of People’s Abilities and Their Natural Preconditions.....	689
Part 19. Character	695
19.1. Concept of Character.....	695
19.2. Character Structure	696
19.3. Basic Traits of Typical Character.....	699
19.4. Character Nature.....	702
19.5. Character Formation	703

PREFACE

While writing this text-book the author aimed at presenting the structural components of theoretical material in a new way, to some extent, with the purpose of better formation of students' deep comprehension of the logical course in General Psychology and Pedagogics.

The important addition to self-learning of educational material is the suggested model of by-level description of essential signs and characteristics of the psychic phenomena, which contains the definitions of key categories and concepts, formalized theme contents structure, questions of problematic character for self-learning, alternative test tasks for self-control, tasks and problem-solving situations for psychological phenomena and processes analysis.

Factual contents of some tasks, which are included in the certain part, are beyond the scopes of the presented information. It will induce a student to creative quest and individual's psychological inquisitiveness development.

Each part is added by the list of used and suggested literature for students' individual work, who will be interested in certain problems of Psychology and Pedagogics.

CHAPTER I INTRODUCTION to PSYCHOLOGY

Part 1 SUBJECT of PSYCHOLOGY

1.1. Subject of Psychology and Its Task

Psychology is one of the sciences about human being. The object of its study is the most complicated sphere of human vital functions – **psyche**. Psyche complication as a phenomenon is conditioned by the fact that it is a higher product of biological and social development of the living creatures. Psyche functional side is complicated as well. It is the means of organism orientation in the surrounding world and regulator of behaviour under the dynamic environment conditions. Human psychic activity is aimed at different objects. While satisfying one's material (organic) and spiritual needs as a necessary life condition, man searches and obtains the essential sources for him from the nearby natural and social environment, gains knowledge, plans his actions, determines methods and ways of their realization, exerts forces to reach an aim, experiences successes and failures. All these are **psychic activity** of human being and psychology investigates it.

The subject of psychology is objective regularity of development and display of psychic phenomena and their mechanisms.

The term «**psychology**» originates from Greek “psyche” which means – soul and “lygos” – word, teaching, and means «**science about the soul**». Psychic life of human being is complicated and has many forms of displaying. **Psychic phenomena** are original subjective experiences, subjective images reflected in consciousness phenomena of reality. This is the inner man's world in all its plenitude and variety. Human psychic life includes his **cognitive activity** – feelings, perception, memory, thinking, imagination, emotional and volitional activity – various senses, emotional experience, and also will display – volitional qualities. The important aspect of psychic life is motives to activity, – needs, interests, convictions, ideals etc. A special group of

psychic phenomena covers **individual psychological personality properties**, – abilities, temperament, character and one's **psychic states** – sublimity, depression, excitement, indifference etc.

As a form of reality reflection by the highly-organized matter – in particular, the nervous system, brain, – psyche is characterized by a number of peculiarities.

Firstly, psychic reflection has an active nature, connected with the search and action methods selection according to the environmental conditions.

Secondly, psychic reflection has an outrunning nature, provides foresight function in activity and behaviour.

Thirdly, each psychic act is the result of the objective influence through subjective, human individuality, which leaves its originality mark on one's psychic life.

Fourthly, in the process of activity psyche constantly develops and improves.

Understanding of psyche, psychic phenomena nature and their conformities is exceptionally important in the human life and activity for managing psychic development and personality activity.

1.2. Reflex Psyche Nature

Human reflective activity is conditioned by the reflex brain activity. The theory of psyche reflex nature was suggested by a remarkable Russian scientist I. Syechenov (1829-1905). In his works he points out, that the source of psychic acts as reflected activity are the external irritants effecting the organism. This activity arises in the process of individual interaction with surroundings, which is carried out due to the reflex brain activity. In his famous work «Reflexes of Cerebrum» I. Syechenov (1863) writes, that «all the acts of the conscious and unconscious origin are reflexes» and the psychic activity is impossible without the external perceptible irritation.

I. Syechenov's theory of the reflex psyche nature was developed by I. Pavlov (1849 – 1936) in his theory of the higher nervous activity.

The theory of reflex activity is based on three main principles of the scientific research:

- the principle of **determinism**, ie the stimulus, cause of any action, its effect;

- the principle of **analysis and synthesis**, ie the decomposition of the whole into the parts and then composition of the new whole out of the elements;
- the principle of **structuralness** and dynamics adaptation to the structure.

The essence of I. Pavlov's theory of the higher nervous activity is materialistic understanding of the organism unity and environment. In the organism «everything is from the outside world» stresses I.Pavlov. And the nervous system connects the organism with its environment. The organism behaviour is determined by the conditions and environment, under which a living creature lives and acts.

In his researches I. Pavlov proved that the cerebral hemispheres play a leading role of the vital functions of the whole organism. The cerebral cortex, providing the organism needs, together with the nearest sub-cortex nerve-centers, realizes complicated analytical-synthetic activity. Here the most complicated temporal nervous intercourses come into being, which regulate relations between the organism and external environment world, and also the activity of the organism itself. I. Pavlov calls this activity of the cerebral hemispheres as **the higher nervous activity**.

The living organism behaviour is a certain reaction or the reflex system to the irritants of the external and internal environments.

Reflex – is a reaction of the organism to irritation, which is carried out by the nervous system. Reflex action is the basic activity form of the nervous system.

There are two types of reflexes. They are the following: an unconditioned reflex which an animal is born with, and a conditioned one, which are produced during the life of animal.

Unconditioned reflexes were produced and gained in the process of the long period of the organism biological development. They are necessary for an animal from the first days of its life for providing its existence. Unconditioned reflexes provide the organism with food search and besides they help to avoid harmful influences etc.

Unconditioned reflexes are caused by unconditioned irritants, which, effecting corresponding receptors such as gustatory, palpable etc., evoke proper reactions. Unconditioned reflexes do not disappear, all the time they act in the normal organism state. A complicated system of unconditioned reflexes is **activity**, which is called an **instinctive** one.

Unconditioned reflexes cannot satisfy the needs of the higher organisms living under complicated conditions. They could provide the organism needs only in absolute constancy of the external environment. But the external environment always changes, that is why the adaptation to it by means of one unconditioned reflexes only is impossible. It is necessary to add temporal connections to them, which form in animals and a person during life.

The main principle of the cerebral hemispheres activity, as I. Pavlov proved, is the formation of the temporal nervous connections, or conditioned reflexes. While investigating this aspect, he noticed that under the certain conditions animals had reflexes when unconditioned irritants were absent (for example, sometimes dog's saliva secretes when a man who feeds it appears though the dog isn't being fed) at this moment. In this case reflexes arise under irritants influence, which I. Pavlov called as conditioned ones. He showed, that when two irritants influence an animal at the same time: one is unconditioned, for example some food, and another is conditioned, which does not cause a reflex in itself, for example, a bell, then in the cerebrum two excitations arise either from some food or the bell. Because they act together, shorting between excited nerve-centers is created ie a nervous contact. As a result of this contact the conditioned irritant begins to cause a reflex reaction, as an unconditioned one.

With the change of life conditions reflexes change as well. They disappear, ie slow down themselves if a conditioned irritant is not supported by an unconditioned one and they recommence, if a conditioned irritant is supported again by an unconditioned one.

Human conditioned-reflex activity is a various and extraordinary complicated system of connections. New nervous ties form on the basis not only unconditioned connections, but on the existing conditioned ones which have obtained proper force and stability. The necessary conditions for conditioned reflexes formation are optimum irritant force, activity of big cerebral hemispheres cortex and supporting of the conditioned irritants by unconditioned ones. In teaching such stimulusli are interest to knowledge, inquisitiveness, surprise caused by the novelty of phenomena.

The basic processes of the nervous action are **excitation and inhibition**.

The cortex of the cerebral hemispheres is effected by a lot of different irritants, but the organism doesn't react to a great number of these irritants because excitations, caused by them, are inhibited.

Inhibition takes place at the same time with excitation. Due to inhibition of many cortex sections excitation is directed to one of the directions and concentrates in a certain cortex section.

Under some definite conditions excitation and inhibition spread, irradiate on the cortex of the cerebral hemispheres, causing excitation or inhibition of other cortex sections or again concentrate in the point of their origin.

Due to excitation irradiation different associations arise in consciousness, namely images, thoughts, senses, which either reinforce, or inhibit performed activity.

In the case of excitation concentration in the certain section of the cortex its other sections are inhibited this time. Spreading or concentration of excitation and inhibition is carried out according to the law of **irradiation and concentration** of the nervous processes.

Excitation and inhibition interact. Excitation in the certain sections of the cortex of cerebral hemispheres causes inhibition in other sections and, on the contrary, inhibition in one sections of the cortex causes excitation in others. Such phenomenon takes place according to the law of **mutual excitation induction and inhibition induction**.

One can distinguish positive and negative induction.

In the case of **positive** induction in the certain section of the cortex inhibition evokes excitation in its other parts. In this case the organism's activity takes place in excitation direction, attention becomes stronger to the activity aspects. In the case of **negative** induction in some sections of the cortex excitation causes inhibition in those sections, which were active ones before. Negative induction is observed in deviation from basic activity and concentration in accidental irritations, which inhibit excitation from the basic irritation, ie the attention is diverted from executed activity.

Inhibition of the nervous processes can be unconditioned or external, and conditioned or internal.

External inhibition is caused by a strong outside irritant. Formed conditioned reflex, for example, secretion of saliva by a dog on turning-on of the electric lamp stops, when a strong sound begins to function.

External inhibition is the result of a negative induction action. It becomes apparent in the form of *extralimit* inhibition which appears when excitation force exceeds capacity possibilities of the nervous cell. In this case irritant force does not only cause reinforcement of reaction, but on the contrary, reaction diminishes or is inhibited entirely.

The inhibiting processes arising in the cell because of its overstrain, protect it from destruction. That's why this type of inhibition is called *protective*.

Internal inhibition is caused by external circumstances as well. One of the displays of conditioned, or internal, inhibition is weakening of temporal connections. It occurs when conditioned irritant (for example the light), for which unconditioned reflex is developed is not supported by unconditioned irritant from time to time (for example by some food). In this case formed connection inhibits, and reflex disappears. If a conditioned irritant is supported by a conditioned one, then an inhibited temporal nervous connection is easily renovated, and conditioned irritant again causes conditioned reflex. Inhibition of temporal nervous connections causes forgetting.

The important displaying of the internal inhibition is *differentiative inhibition*. If conditioned irritants, for which conditioned reflex was developed, are supported by some conditioned irritants, then a conditioned reflex arises on those conditional irritants, which are supported by an unconditioned one. And excitation from other irritants, that are not supported, are inhibited, and conditioned reflex is not produced on them. Consequently, if unconditioned reflex on the sound is developed, but by the sound of only certain height and intensity, then conditioned reflex will be caused further by the sound of that height and intensity, which was supported. In this case differentiation of irritants takes place. An organism distinguishes exactly effective, ie supported irritants, from ineffective ones, which are not supported by unconditioned irritant. It has been estimated by the researches, that the dog, for example, can differentiate the sound irritants with exactness up to 1/8 of tone. Differentiative inhibition contributes to specification and distinction of the irritants justified by life from unjustified ones. It is demonstrated in educational and teaching activity. Distinction, specification and knowledge or behaviour acts acquirement is effective when their essential properties are supported by different means, and inessential properties are inhibited.

Together with **closing** function the cerebral hemispheres fulfill **also analytical-synthetic** functions.

While interacting with the environment, an organism responds not to all irritants, which are received by the brain, but only to those, which satisfy its needs. In the process of distinguishing the irritants, the brain responds to one of them, and does not respond to the others. In such a way objects of the outer world are analyzed.

The simplest, an elementary **analysis** is carried out by, the lower sections of the central nervous system as well. **The highest analysis**, which is the main for behaviour acts, is carried out by means of cortex of the cerebral hemispheres. The essence of the cortex activity is based on analysis and synthesis of irritations which reach it.

Analytical activity takes place by means of special mechanisms, which I. Pavlov called as **analysers**. They appeared and developed in the process of biological development of animals as a result of their adaptation to life conditions, to different types of energy of the outer world, which influenced the organism – the light, sound, chemical, mechanical, temperature energy etc.

The cerebral hemispheres are magnificent analyser of both external and internal world of the organism.

Analysers realize analytical activity in connection with the inhibition processes in the cortex of the cerebral hemispheres. One irritants or irritant complexes among those, which come to the cortex of the cerebral hemispheres, separate, ie cause excitation there, and an animal reacts, answers them. Other irritants are inhibited and an animal does not respond to them. Analysis has foundation: on the one hand, in analysing receptors ability, peripheral outflows, and on the other hand – in inhibition process, which develops in the cortex of the cerebral hemispheres and separates the facts which do not correspond to the reality, from those, which accord with the reality. Inhibition process contributes to correcting perfection of analytical activity of the cerebral hemispheres.

Together with the analysis the cerebral hemispheres realize synthesis, the essence of which is in shorting of the nervous connections.

Synthetic activity of the big hemispheres can be very complicated. The whole chains and systems of temporal connections are formed. The processes, which in psychology are called **associations**, are nothing, but

the formation of temporal connections, ie synthesis acts. Thinking is association: at first- an elementary one, and then – the associations chains; however, each first association is the moment of a thought birth.

In order to orient in the surroundings successfully an animal must analyse and synthesize it. **Cognitive processes, thinking are complicated analytical-synthetic activity of the big hemispheres.** Specifically human thinking arises on the basis of a more complicated analytical-synthetic activity of the cortex of the cerebral hemispheres on the language basis.

Activity of the cerebral hemispheres is signal activity. The cerebral hemispheres always react to various irritants, which signal about the facts which are important for the organism life. For example, light or sound can signal the creature about the presence of food, danger, etc.

Signals, which are called by objects, and their properties or nature phenomena, form **the first signal system**, which is typical of both animals and human. The first signal system is a physiological basis of feelings, perceptions, conceptions. Reality for animals is signaled exceptionally by irritants, which immediately reach the special cells of visual auditory and other receptors of the organism, and their reflections in the cerebral hemispheres.

The higher nervous activity of a human as a social being differs qualitatively from the higher nervous activity of animals. In the process of work, in the social life people produced a sound language as a means of communication, method of mutual intercourse.

The speech function brought a new principle in the cerebral hemispheres activity. The word became an original signal in human life. It is the **second** specifically human **signal system** of the reality. Each word, as the name of an object, its properties or actions is replaced by the corresponding first signal, ie it signals the first signals.

For human being feelings and perceptions of objects and phenomena of the surrounding world are the first, concrete signals about the reality, and the language, first of all, kinesthetic irritants, which reach the cerebral cortex from the speech organs, these are the second signals, signals of signals. The word, due to the previous life of an adult is connected with all external and internal irritants, which come to the cerebral hemispheres. It signals about them, replaces them and, that is why, it can cause all that actions and reactions, which are caused by the concrete irritants.

The second signal system appears on the basis of the first signal system and it can not exist without it. It acts only in connection with the first signal system, forming more complicated interconnections with it.

The second signal system in interaction with the first one is a physiological foundation of a human higher abstract thought, and one's consciousness, method of one's identification. Physiological foundation of other psychological processes (perception, memory, imagination, formation of acquired habits etc) also is interaction of the first and second signal systems. The participation of the second signal system in these psychological processes makes them conscious.

The cerebral hemispheres are an extraordinary complicated dynamic system. In the activity process the new and new conditional connections are created. They are united into certain systems. Systematic character of connections provides successful animal and human activity. The processes, which take place in the cerebral hemispheres, have an urge to go to unification, stereotype unifying activity permanently. A lot of irritants, which come to the cerebral hemispheres both from outside and within the organism, are collided, interacted, systematize and accomplished by a **dynamic stereotype**.

The dynamic stereotype is necessary for a successful organism interaction with the environment. Reiteration of identical motions and actions, identical behaviour acts, similar reactions ensures successful activity and the needs satisfaction of the organism.

It is known, that human being gets accustomed to certain actions method, produces a definite method of perception, memorizing and thinking. While automatizing one's actions, person produces acquired skills and habits, which facilitate directed activity consciously. In this process a leading role is played by the dynamic stereotypes.

In the activity process the new dynamic stereotypes are generated. The old dynamic stereotypes do not disappear, they interact with newly created, contribute to their formation or, on the contrary, interfere this process, that is why, the successful formation of new stereotypes is inhibited.

The process of development and reconstruction of the dynamic stereotype requires great work of the nervous system. This work can take a lot of time and depends on complication of executed activity, and also on the individual peculiarities of animal or human. The

development and support of the dynamic stereotype is always connected with certain experiences.

The nervous processes, which are reflected in the cerebral hemispheres during establishment and attached to support of a dynamic stereotype, are foundations of senses and cause senses peculiarity and intensity. Physiological basis of the feelings of difficulties, cheerfulness and tiresome, satisfaction and sadness, gladness and despair etc. is changes, violation of an old dynamic stereotype or difficulty of the establishment of a new one.

A dynamic stereotype is developed better, when the irritants act in certain system, definite sequence and certain order. The dynamic stereotype is supported by observing of a certain external order, system and activity mode.

1.3. Psyche and Consciousness

In the evolution process of creatures psyche as a reflection of objective reality in the brain according to living dependency on life conditions of beings, acquired more complicated forms. The highest level of its development is **consciousness** which is typical of human being.

Psychology explains the development of human consciousness by means of human social being and labour activity, caused its development. With the transition to the social life forms the structure of human behaviour changed greatly. Alongside with its biological motives, which depended on the immediate environment perception, higher “spiritual” motives, and needs, higher behaviour forms appeared which are conditioned mainly by the ability to disengage from the immediate environment influence. Alongside with two behaviour sources – **hereditary consolidated program and own individual experience** – the third source which forms human activity, – **broadcasting and acquisition of social experience emerged**. In satisfaction of this important social need one of the decisive factors was the language which became the form of the consciousness existence.

The typical peculiarities and structural components of the consciousness are the following:

- Knowledge about the surrounding reality, nature, society. The consciousness level immediately depends on knowledge acquired

level and personality experience. In the process of socio-historical development human being developed the need in knowledge, which is one's major motive, and the cause of cognitive activity.

- Human separation in the object world as an identification subject, distinction of the subject «I» and object «not me», one's contrasting as a personality to other objective world. Self-knowledge is typical of this process which became a foundation for the consciousness, ie realization of one's own physical and moral-psychological qualities.
- *Purposefulness, planning of one's own activity and behaviour, prediction of its results.* This aspect of consciousness appears in self-control and correcting of one's own actions, their reconstruction, in strategy and tactics, contents, if it is required by the circumstances.
- The attitude of personality towards the objective reality, other people, and one. It realizes in evaluation and self-criticism, in which the emotional and volitional personality sphere plays an important part.

Separation and opposition by a human of oneself to other object world, to natural and social phenomena, experience of one's attitude towards the objective reality and oneself is the main aspect with respect to self-education. Due to consciousness, self-knowledge and self-consciousness personality becomes an education subject, ie individual plans educational aims, and achieves them.

Human consciousness is characterized by activity. In the process of reality reflection information, that comes to the brain, is not reflected mechanically, but is consciously elaborated according to the aim, task and personality experience.

The development level and consciousness display in human can be different, depending at the level of development of one's knowledge and scientific world view, ideological and moral persuasions, attitude towards other people and oneself, towards the forms of social life as well.

Unrealized forms of psychic activity (instinctive and automated actions, inclinations etc.) are also typical of human being. But irresponsible aspects are included into conscious ones and due to it can be controlled by human.

While learning the forms of psychic activity, it is necessary to take into one's account that psychic life, consciousness and personality activity always occur in the unity. This unity appears in purposeful human activity, one's various cognitive, emotional and volitional reactions, attitude towards others and oneself. Human being co-operates with the nearby environment as an integral system. Interaction integrity is, first of all, provided by a higher section of the central nervous system – by the cortex of the cerebral hemispheres which integrates the organism activity and governs it.

1.4. Basic Branches of Psychology Knowledge

With the development of psychology as a science, with the use of psychological knowledge in the most various spheres of human activity the certain branches of this knowledge were gradually separated and have become independent ones.

There are the following branches of psychology: General Psychology, Age Psychology, Pedagogic Psychology, Social Psychology, Genetic Psychology, Engineering Psychology, Military Psychology, Medical Psychology, Juridical Psychology, Sport Psychology, Zoo-Psychology, Labour Psychology, Art Psychology, and Pathopsychology. In connection with the space exploration a special branch of Psychology – Space Psychology has appeared.

Each of the above mentioned branches of psychological knowledge has definite subjects and methods of investigation of psychic activity depending on labour conditions in this or that particular sphere of human life and activity, their requirements in moral-psychological personality qualities. However all these branches of psychological knowledge require the knowledge of General Psychology, which studies the methodological questions of psychology, nature of psychological phenomena, development conformities and natural laws of cognitive psychological processes, individual peculiarities of personality, its senses and will, temperament, character and abilities.

In the age of scientific, technical and social progress special attention of psychologists is given to the problems of Labour Psychology and Social Psychology.

1.5. Psychology and Its Connection with Other Sciences

Psychology and other sciences are interconnected: in some cases psychology uses achievements of other sciences for solving its problems, and in other ones sciences use psychological knowledge for explanation or solving certain questions as well. Intersubject connections of psychology and other sciences contribute to their mutual development and application in practice.

In elaboration of some questions psychology uses the biology data, in particular, of anatomy and physiology, and the theory about the higher nervous activity. In its turn, psychological data are widely used in medicine, psychiatry, in particular.

Pedagogy widely uses psychological teaching conformities of education and upbringing. Some psychology branches (Pedagogic and Age Psychology) are connected with the theory and methods of Pedagogy, Didactics, and Teaching Methodology of the certain educational subjects. One of the psycho-pedagogical contemporary problems of vital importance is the formation of thinking in the teaching process, which would provide a pupil with a possibility of independent information learning, that is always renovated. It would guarantee the development of subject abilities of the productive intellectual activity. Productive character of Psychology and Pedagogy interconnections is evident because the conditions for outstripping of real pedagogical practice are created, the new ways for the search of effective contemporary teaching technologies and education are obvious in this case. At the same time Psychology is based on the Pedagogics data in the study of psychology of personality formation. Psychology is closely connected with Literature, Linguistics, History, Art, Cybernetics and other sciences.

1.6. Basic Directions in Contemporary Psychology

For the last two centuries Psychology development was interconnected with the achievements of philosophical thought and successes in natural sciences.

Materialistic interpretation of the nature and essence of psychic phenomena was conditioned by the appearance of Dialectical Materialism Philosophy and the development of **the theory about reflex nature** (I. Syechenov, I. Pavlov). Philosophy of pragmatism caused the appearance of **behaviourism** in American psychology, or

the science about behaviour (D. Watson). German psychologists M. Wertheimer, W. Keler, K. Koffka, K. Levin on the basis of special researches advanced the idea of **structural psychology**, for which acknowledgement of structure primacies priority was essential; integral formations, which determine the properties and functions of separate parts included into the integral psychic activity. Researches in branch of abnormal psychology and psychiatry caused the necessity to study the role and action of unrealized factors determining the personality needs and inclinations, one's behaviour. In psychology **psychoanalytic direction** was developed (Z. Freud).

Bihaviourism negates consciousness as the subject of psychology. The subject of bihaviourism is the study of the organism's behaviour as external reactions to stimuli effecting it. Behaviour, in behaviourists' opinion, is formed as a result of the unrealized selection of physical motions as reactions to stimuli. The habits are considered to be the main point in behaviour. Thinking is understood by bihaviorists as the language and speech habits. They find training to be the leading aspect in the teaching process during which the essential skills and habits are obtained; they underestimate the realizing of the aim, essence and the very teaching process.

Structural Psychology considers the integrity of psychic activity to be the basic principle, which is not the sum of the separate psychic processes, but as the original structure with specific properties, which do not ensue from the properties of the separate elements of the psychic life. On the contrary, the structure properties, as the whole, determine the properties of its separate parts.

Psycho-analysis is closely connected with the Z. Freud's theory about dominance of subconscious, instinctive inclinations in psychic personality activity. According to psycho-analysts, human activity source is in deeply instinctive, biologically defined aspirations. These aspirations, penetrating from subconscious into consciousness, become human activity source, direct its actions and behaviour. Psycho-analysts give special importance to sexual appetences.

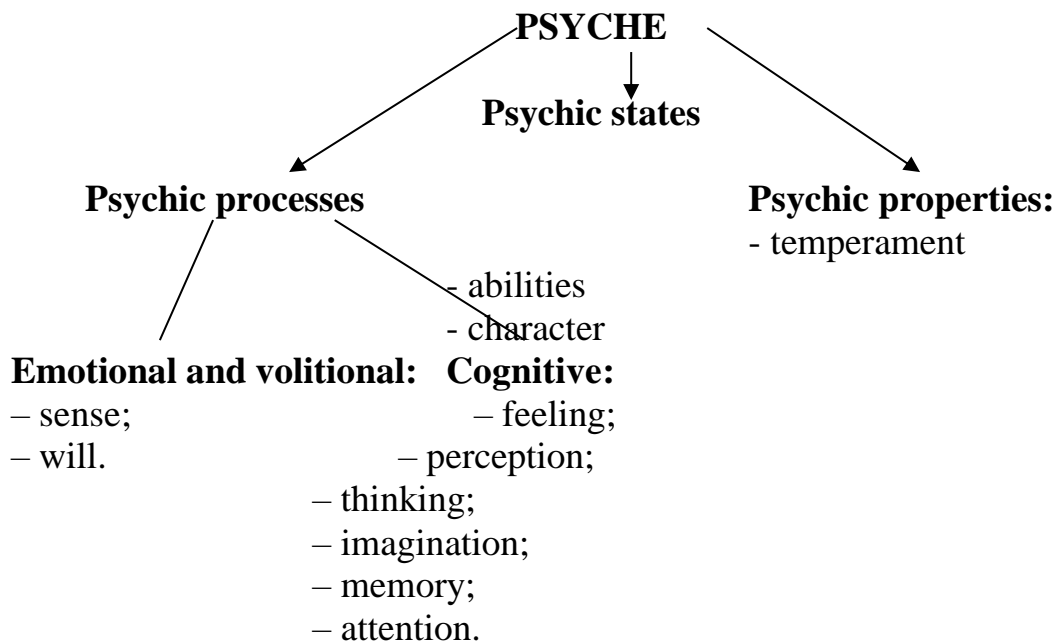
In Ukrainian psychology the integrity principles of psychic personality life, interconnection of psychic processes and properties, personality development in the teaching process and education, social stipulation of humane psychic life are very essential.

Theme Key Notions

↔ Psychology, psyche, reflective activity, active psychic reflection, reflex, unconditioned reflex, conditioned reflex, conformities of the higher nervous activity, consciousness, irresponsible.

Formalized Structure of the Theme Contents

Psyche Functions: signal, regulative.
Psyche Mechanism: reflective brain activity.
Nature of psychic reflection: organism's reflection of the living surroundings.
Levels of reflection: level of unconditioned-reflex reality reflection, level of conditioned-reflex reality reflection.



Questions for Individual Work

1. What is the subject of psychology? What basic groups of the psychic phenomena does it study?
2. What are the basic tasks of contemporary psychology?
3. Name the basic principles of the scientific psyche study.
4. What is psyche development of the living creatures conditioned by?
5. What is psychic reflection? How do you understand this phenomenon?
6. What is active nature of psychic reflection?
7. How should one understand the affirmation, that the psychic phenomena are subjective reflection of the objective world?
8. What is the essence of reflex psyche nature?
9. Name and explain the basic conformities of psychic activity.
10. Characterize psyche functions.
11. What is consciousness and what are its features?
12. What is irresponsible aspect and in what way is it connected with consciousness ?
13. What is the object of study in behaviouristic psychology?
14. What is structural psychology based on?
15. What is meant by psycho-analysis conception?
16. What is the essence of materialistic approach to understanding of the psychic phenomena?

Alternative Test Tasks for Self-Control

1. Do you agree with the affirmation, that all the variety of the human psychic life can be characterized by three groups of psychic phenomena?
2. Is it possible to affirm, that the basic task of psychology as a science is the determination of psychological conformities in psychic activity?
3. Are all the methodological principles of the scientific study of the psychic phenomena indicated: the principle of determinism, the principle of psyche unity and activity, the psyche development principle in activity?
4. Do you agree with the affirmation, that only the cerebral hemispheres can be the organ of psychic activity?

5. Can one affirm that psychic activity appeared as a mechanism of the reality active reflection by beings?

6. Are all the basic psyche functions enumerated: reflective, regulative, adaptive ones?

7. Can a psychic fact (conception about the object of experience) be considered as the subjective reflection of the objective world?

8. Is the following description of unconditioned reflex correct or incorrect: it is born, invariable; it provides adaptation of the organism to the permanent environmental conditions?

9. Are all the formation conditions of conditioned reflex named correct or incorrect: the objective urgency for the organism of absolute irritant, the coincidence in time of action of conditioned and unconditioned irritants, the amount of reiterations of such coincidences, the force of conditioned and unconditioned irritants, the quality of the conditioned irritant?

10. Do you agree with the affirmation, that the necessary physiological condition of perfection of any reflex, its specialization is a differentiative inhibition?

11. Is the following statement true or false: Basic physiological systematization in the work of the cerebral hemispheres is caused by the mutual induction processes of excitation and inhibition?

12. Is the following description of consciousness sufficient or not: Consciousness is a higher psyche form, formed in the process of the human socio-historical development?

13. Is it correct to assert, that irresponsible aspect in human activity is not connected with consciousness?

14. Is the transition of irresponsible aspect into conscious one possible and vice versa?

15. Is it possible to affirm, that behaviourists' underestimation of conscious in psychic man activity spares personality the possibility of becoming an active subject?

16. Is it correct to think, that structural psychology considers psyche according to the mechanisms of its functioning as a closed system?

17. Is it possible to consider psycho-analysis ideas, as the direction in psychology, to be more productive for explanation of the psychological deviation mechanisms in psychic activity, than for substantiation of conformities of psychic life in norm?

Tasks and Problem-Solving Situations

1. What does management in identification of the psychic phenomena by principles of determinism, consciousness and activity unity and psyche development in activity give to a researcher practical man?

2. What is the principal difference between the approaches to the study of psychic phenomena explanation by the representatives of behaviorism, psycho-analysis, gestalt-psychology and materialistic direction?

3. Explain from the conformities to natural laws point of view of the higher nervous activity the following phenomena which happen in life:

- while developing some skills and habits, at first a person makes a lot of unnecessary motions;
- a person can forget everything he knew at the responsible moment;
- a child doesn't react to the remarks, which are always said in a raised voice, any more.

4. What is common and different between the brain activity and computer activity? Compare and analyse both aspects.

Used and Suggested Literature

1. Загальна психологія / За ред. С.Д. Максименка. – К.: Форум 2000.

2. Максименко С.Д. Общая психология. – М.: Рефл-бук, К.: Ваклер, 2001.

3. Психологія / За ред. Г.С. Костюка. – К.: Рад. школа, 1968.

4. Sergey Maksymenko. General Psychology. – Vinnytsya, 2005

3. Максименко С.Д., Назар М.М. Построение проукраинских ментальных карт для обеспечения информационной безопасности граждан Украины (Часть первая). Fundamental and applied researches in practice of leading scientific schools. Issue: 4 (10): Psychology. Economics / Ed. by S. Maksymenko, V. Lunov, A. Hall. Co-pub. Publishing office: Accent Graphics Communications – Hamilton, ON, 2015. P. 88-108.

4. Максименко С.Д. Теорія і практика психолого-педагогічного дослідження. – К.: КДП, 1990. 240 с.

5. Максименко С.Д. Основи генетичної психології. – К., 1998. – 218 с.

6. Максименко С.Д. Основи генетичної психології. – К., 1998. – 218 с.
7. Максименко С.Д. Общая психология. – М. – К.: Рефл-бук, Ваклер, 1999. 528 с.
8. Максименко С.Д. Загальна психологія. – К.: Форум, 2000. 543 с.
9. Максименко С. Д., Соловієнко В. О. Загальна психологія: навч. посібн. 2-ге вид., стереотип. Київ: МАУП, 2001. 256 с.
10. Максименко, С. Д. (2002). Розвиток психіки в онтогенезі: Теоретико-методологічні проблеми генетичної психології (Т. 1). Київ: Ваклер.
11. Максименко.С.Д. Загальна психологія. – Вінниця: Нова книга, 2004. 701 с.
- URL: <https://psycholing-journal.com/index.php/journal/part/view/715>
12. Максименко С. Д., Максименко К. С., Папуча М. В. Психологія особистості: підручник. Київ: ТОВ «КММ», 2007. 296 с.
13. Sergiy D. Maksymenko, Mykola V. Yevtukh, Yaroslav V. Tskekhmister, Kseniia S. Maksymenko, Olena O. Lazurenko. Psychology and Pedagogics: Text-book.- К.: Publishing house 'Slovo', 2012.-520 p.
14. Maksymenko S.D. (2015). Genesis of Personality Existence: monography. Montreal: Accent Graphics Communication
15. Максименко С.Д., Орап М. Psycholinguistic Predictors of Health (Психологічні предикатори здоров'я) // Psycholinguistics. – 2018. – №24(1) –Р. 252-268.
16. Максименко С., Ткач Б., Литвинчук Л., Онуфрієва Л. (2019). Нейропсихолінгвістичне дослідження політичних гасел із зовнішньої реклами. Психолінгвістика. Психолінгвістика. Psycholinguistics, 26 (1), 246–264. DOI 10.31470/2309-1797-2019-26-1- 246-264.
17. Maksimenko S.D., Serdiuk L. Psychological Potential of personal self-realization. Social Welfare. Interdisciplinary Approach, 6(1), 93-100
18. Maksymenko, O. Lysenko Modern methods of diagnosing virtual addiction among adolescents: relevance and prospects. Монографія/ за ред. Аніти Янковської, Riga, Latviaa,,: IZDEVNICIBA BALTIJA PUBLISHING, 2019. С.-394-410
19. Maksimenko S.D. Principles of website design for professional psychological diagnosis in different specialities. Information

Technologies and Learning Tools / Institute of Information Technologies and Learning Tools of NAES of Ukraine. –2019. – Vol. 73, № 5. – P. 284-294.

20. Максименко С.Д., Костюк О.В., Максименко К.С., Немеш О.М., Луньов В.Є. Мультилінгвістичний дискурс невротизації майбутніх лікарів: монографія. Київ: “Видавництво Людмила”, 2020. 171 с

21. Максименко С.Д. Психологічні особливості розуміння студентами Інтернет-текстів, *Psycholinguistics*. –2020. – Vol. 28(1), – P. 95-105.

22. Maksymenko, S.D.(2021) Genetic principles of creative personality confident as a propulsion of mental development. Ottawa: Accent Graphics Communications and Publishing. Glasgow: Society for the support of publishing initiatives and scientific mobility Limited.-615 p.

23. Максименко С.Д., Я.В. Руденко, А.М. Кушнерьова, В.М. Невмержицький. Психічне здоров'я особистості: посібник для вищих навчальних закладів. Київ: “Видавництво Людмила”, 2021. 438 с.

24. Максименко С.Д., Яланська С.П. Генетико-креативний підхід: діяльнісне опосередкування особистісного розвитку: монографія. Київ: “Видавництво Людмила”, 2021. 508 с.

25. Максименко С.Д., Піроженко Т.О., Пророк Н.В., Папуча М.В. Психологічний портрет особистості дитини: вікові періоди Київ: “Видавництво Людмила”, 2021. 104 с.

26. Maksymenko S.D. Features of the components of students' psychophysiological readiness to work as teachers, *Idōkan Poland Association “IDO MOVEMENT FOR CULTURE. Journal of Martial Arts Anthropology”*, Vol. 21, no. 2 (2021), pp. 11–18

27. Максименко С.Д., Руденко Я.В. Мультипсихологінчий дискурс вокалотерапії психосоматичних розладів особистості: монографія / С.Д. Максименко, Я.В. Руденко. Київ: «Видавництво Людмила», 2021. 904 с.

28. Максименко С., Деркач Л., Кіричевська Е., Касинець М. Психологія когнітивних процесів: науковий посібник / Національна академія педагогічних наук України, Інститут психології імені Г.С. Костюка. Київ: «Видавництво Людмила» 2022. 420 с.

29. Maksymenko S.D., Viktor Burlaka, Oleksii Serdiuk, Jun Sung Hong , Lisa A. O'Donnell, Vitalii Panok and others. *Child Internalizing*

Problems in Ukraine: The Role of Prosocial and Antisocial Friends and Generalized Self-Efficacy/ Societies 2022, 12, 144.

30. Максименко С.Д., Ірхін Ю.Б., Деркач Л.М., Марусинець М.М., Касинець М.М. Психологічна організація модульного формування когнітивних здібностей: генетико-креативний підхід: навчальний посібник. Том 1. Київ: «Видавництво Людмила», 2023. 384 с.

31. Максименко С.Д., Ірхін Ю.Б., Деркач Л.М., Марусинець М.М., Касинець М.М. Психологічна організація модульного формування когнітивних здібностей: генетико-креативний підхід: навчальний посібник. Том 2. Київ: «Видавництво Людмила», 2023. 356 с.

32. Максименко С.Д. Медична психологія: підручник / за редакцією академіка С. Д. Максименка. Том I. Київ: «Видавництво Людмила», 2023. 458 с.

33. Максименко С.Д. Медична психологія: підручник / за редакцією академіка С. Д. Максименка. Том 2. Київ: «Видавництво Людмила», 2023. 520 с.

34. Maksymenko S.D., Lunov, Vitalii, Matiash, Mykhailo and Subbota, Spartak and Tolstoukhov, Anatolii, Ukrainian Syndrome: How Ukrainian Youth Understands the New Norm of Life and Relates to Leraing in face to 2022- Full-Scale Russian/ SSRN. –2023–№1(January 15, 2023). –P. 1-10

35. Максименко С.Д., Ірхін Ю.Б., Деркач Л.М., Марусинець М.М., Касинець М.М. Психологічна організація модульного формування когнітивних здібностей: генетико-креативний підхід: навчальний посібник. Том 1. Київ: «Видавництво Людмила», 2023. 384 с.

36. Максименко С.Д., Ірхін Ю.Б., Деркач Л.М., Марусинець М.М., Касинець М.М. Психологічна організація модульного формування когнітивних здібностей: генетико-креативний підхід: навчальний посібник. Том 2. Київ: «Видавництво Людмила», 2023. 356 с.

37. Maksymenko S.D., Maksymenko K.S., Svitlana Yalanska, Nina Atamanchuk, Valeriy Zhamardiy, Viktoriia Donchenko Psychophysiological unloading with compliance taking into account: aeroariphythotherapy resource. Acta Balneologica. – 2023. – № LXV (2), P.98-104

38. Максименко С.Д., Деркач Л.М., Розуміння сучасної когнітивної війни в глобальному вимірі, її генезис в українському контексті: огляд та напрямки майбутніх досліджень. Оборона і

стратегія. університет оборони БРНО. Випуск: Том 23, №1 (червень 2023).С.126-148

39. Maksymenko S.D. The Historical Sense of Psychological Crisis: Modern Understanding of Genetical-Psychological and Integrative Approach. SSRN. –2023–№ 3 (May 9, 2023). –Р. 1-10

40. Максименко С.Д., Носенко Е.Л., Експериментальна психологія: Підручник для студентів. К.: Центр учбової літератури, 2023. – 360 с.

41. Максименко С.Д., Загальна психологія. Навч. посібник для студентів вищих навч. закладів. –Вид. 2-е, перероб. та доп. – К.: Центр навч. літератури, 2023. – 272 с.

42. Maksymenko, S., Ivashkevych, E., Kharchenko, Y., Tarnavska, O., & Sinjavska, N. Semantic and Pragmatic Meaning of Discursive Units in the Process of Communication of a Psychotherapist with a Client. PSYCHOLINGUISTICS, 34(1)2023, 129-172.

43. Максименко С.Д., Л.М. Деркач, Ю.Б. Ірхін. Диференційна психологія. Видання 2-ге, перероблене і доповнене: підручник/ за загальною редакцією академіка С.Д. Максименка. Київ: «Видавництво Людмила», 2024. 572 с.

44. Maksymenko, Serhii, Orthobiosis in Human Development: A Genetic Psychological Perspective on Personality Traits and Their Pathologization (January 29, 2024).

45. Генеза сучасної інформаційно-когнітивної (гібридної) війни в українському контексті та глобальному вимірі: наукове дослідження/ С.Д. Максименко, Л.М. Деркач. Київ: «Видавництво Людмила», 2024. 128 с.

46. Максименко С.Д. Методологічні принципи конструювання модульного психологічного супроводу і психічного здоров'я : навчальний посібник. Том. 1 / С.Д. Максименко. Київ: Видавництво Людмила, 2024. 718 с.

47. Максименко С.Д., Гришко О.Д., Психологічний супровід і психічне здоров'я: навчальний посібник. Том. 2 / С.Д. Максименко, О.Д. Гришко. Київ: Видавництво Людмила, 2024. 468 с.

Part 2

PSYCHOLOGY METHODS

2.1. Basic Requirements to the Psychology Methods

Psychology as a science has a definite **subject and methods** of the psychic phenomena study. Knowledge of the methods and the ability by their means to study age and individual peculiarities of the psychic personality development is the way to a more deep cognition of personality psychological peculiarities, and the usage of this knowledge in practical activity.

In Psychology there are certain requirements to the research methods of the psychic phenomena. They are the following:

- the psychic phenomena must be studied in their development, interconnection and interdependency;
- the method of psychological research must be adequate to the subject of research; it must reveal its essential but not the second-rate accidental peculiarities of the investigated psychological process, state or qualities.

The basic principle of psychological research is its **objectivity**. Methods, which provide objectivity of the investigated psychic phenomenon, include observational learning, experimental research analysis of products activity (educational, labour, sporting), conversation, interview etc. The method of self-observational learning, especially its introspective form, can not be a single and a valid method of the study of personality psychic processes peculiarities, states and qualities. Self-observational learning is subjectively interpreted, especially, when an investigated person is underdeveloped and is incapable of self-observational learning. To check the descriptions of psychic experiences, which are investigated by self-observational learning, is mostly impossible, but, when an experimental person is under objective methods of self-observational learning the form of the verbal report about **what** and **how** one experiences during self-observational learning of psychic process or state can be used. In the process of self-observational learning personality appears both as a subject and as a research object. This fact makes it impossible for the research to be a success. The better form of self-observational learning

is a retrospective one, the essential feature of which is reminiscing about the course of the investigated psychic phenomenon after it had taken place. While using such a method person can describe what he felt in the state of gladness, sadness, fear, and the way one remembered or thought while solving the problem.

The leading principle of the objective methods in psychological research is **consciousness and activity unity**, cognition mediation of inner psychic phenomena, by their external displaying in acts, behaviour, speech, mimic motions, gestures and other reactions. For example, appropriateness of observational learning become apparent in adequacy degree and object recognition speed, its identification among other objects, finding common and different features in them.

2.2. Experimental-genetic method

Analyzing the empirical results gained by means of the experimental genetic method, taking into account the peculiarities of the correlation of training, education and mental development (S. Kostyuk), relying on the nature of the social abilities designing mechanisms determined in the experimental researches (V. Davydov), considering the statements of the theory of stage-by-stage formation of intellectual actions (P. Galperin), analyzing works in biology and genetics, we came to the conclusion, that the force which generates a human life, is a **need**.

When we tell, that a life generates a life, it is necessary to answer the question: "How does it happen?" Originating of life as it is should be done by the need. And the love begins with the need and is realized, determined in a new individual as its creative product. The logical psychological analysis enabled us to distinguish this genetically initial inconsistent "unit" which underlies both biological and social existence of the personality, as the need itself, actually represents "impossible", "strange", inconsistent unity of these two beginnings. That's why it is infinitely active and energetically capacious. Therefore, it is necessary to search for the sources, essential features of the personality movement in the sources of life. Lets listen what Alain Willis says: "We begin our existence in the form of a small thickening on the end of a long string. Cells start to grow; the outgrowth gradually gets human forms. The tip of a string appears to be hidden in the middle, inaccessible and protected. Our task is to save it and pass it further. We blossom for a

short period of time, we study to dance and sing, we get some memories which we immortalize in stone – but we die quickly away and again we lose the form. Now the tip of a string is in our children and lasts through us, going to secret depth of ages. Incalculable thickenings were formed on this string, blossomed and died away, as we die away now. Nothing remains except for the string of life. In the process of evolution not only separate outgrowths on strings change, but inherited in it structures” [274 p. 105].

What provides and causes this constant, impetuous, eternal movement of human spirit, a turn and endlessness of generations of human beings? Human life (as well as the life in general) on the Earth does not arise from the not-life, it continues, inherits another life. It is the cardinal moment: the life generates a life and in the source of it is the life generating general intention –the *need* – as the aspiration to be, to live, to last in others. We consider the need as the initial, comprehensive intense condition of a biosocial creature, which directs its activity – the life. The nature of the need is the initial energetically dynamic unity of the biological and the social components of the personality. On psychological parameters the need is a special base condition, a dynamic pressure, which determines an opportunity of the individual to be active during all his life. S. Rubinstein marked: “It (the personality – S.M.) is connected with the world around, it has a need in it ... This objective need, being reflected in the mentality of personality, is experienced by it as the necessity” [251, p. 103].

In the world literature a lot of attention is paid to the study of **necessities**’ sphere of the personality. So, there is an authoritative and steady tendency to integrate various intentional displays of the personality with the purpose of finding initial sources of its activity (“libido” by Freud, “instincts” by McDawgoll, “base **necessities**” by Maslow, etc.). A category of need, which we introduce, is best correlated with “base **necessities**” of Maslow though there are also significant differences. Though A. Maslow declares base **necessities** as general, “organizmic”, nevertheless he sees in them exclusively biological roots. Actually, these are instincts which as Maslow considers, are very weak in the person in comparison with the animal, and they intensify owing to the meeting with the social world: “Much benefit would be brought to us with the comprehension of that fact, that the superior **necessities** are the part of a biological human nature, as inseparable as the **necessity** of

meal ...We know, that they *are modified* under the influence of culture, in the process of accumulation of the experience of the interaction with an environment and knowledge of adequate ways of their satisfaction” [177, p. 160] (italicized by us. – S.M.).

The difference of our position supposes to be essential. The need as an initial, base power intention is not only biological from the very beginning, but it has the biosocial nature as it is an original-unique infinite continuation of the need of social creatures (parents of the child), materialized in their creative product – a new life. Thus, the biological essence is united with the social one, creating an inseparable unity in a human being, thus the social essence becomes the biological one as well. The need “*is not modified*” in any other structures: it generates “on itself”, “in itself” separate and various necessities which are materialized, are satisfied, experienced and developed. Necessities arise as separate branches on the entire and single carrier – the need. But the need itself, as an initial intentional power force is materialized only in the same entire product – joining of two needs, two personalities and then the human child is born. It is the biosocial need, by the definition, that causes primary potential personalitiness of this child. But it is not only the need ... Another initial aspect is the existence of its hereditary human inclinations in it. The movement of the need transforms the potential into the actual, and here we see the beginning of the formation – the appearance of the personality *structure*.

We ascertain, first of all, that it is the materialized need of two people of opposite genders that gives birth to a new life. The unity of the biological and social essences, starting here as the need, primarily has a biosocial nature. The need, being generated by the fact of its historical existence, is embodied in the human being and goes to a new turn of its existence, only having materialized in a new life, in *a new* human being. Being as if exclusively biological by its nature, this creature with the help of the materialized – embodied in it – biosocial need, carries in itself a huge layer of the social reality which was appropriated by its descendants during the life and became already biological to a certain degree.

And consequently, there is as much biological as social in a human alive creature (in the personality). Strictly speaking, it means, that the person does not have any instinct, inclination, need which would have exclusively natural pure element. By the nature, by contents, by way of

display and means of achievement, by features of experience (as presented in the consciousness), all intentions are exclusively human, grown on the single biosocial carrier – the need. And in the same way the person does not have a single purely social, cultural intention or need, all of them are displays and embodiment of the need of an alive, true nature. It is here there is the valid unity and integrity of the human being.

In his time K. Jung paid attention this moment of the unity “There exists, – says Jung, – *the a priori* factor in all human activity, the so-called innate, pre-conscious and unconscious individual structure of the soul ... And at that moment when the first displays of the mental life become accessible to supervision, one must be blind not to admit their individual character, that is the unique personality that is behind them. It is difficult to imagine, that all the details become true only during the moment of their appearance” [323, p. 214]. Jung, as it is known, considers, that special images, archetypes which comprise ways and styles of human activity are revealed behind real behavior. He insists on their hereditary character. The behavior of the person results from the patterns of actions, which are the images-archetypes by their nature. They appear to be human qualities of the human being, the specific human form which his actions take. “This form is hereditary and it exists already in the plasma of a germ. The idea that it is not transmitted in a hereditary way, and again in each child arises, is as absurd, as an ancient belief that the sun ascending in morning, is quite different sun than the one setting in the dusks” [323, p. 215].

Jung, focusing his attention on the research of images-archetypes, admits, that this thesis cannot be proved by the modern science. We believe, that the need, in general, can assimilate in itself certain general ways of human behavior and reveal them while meeting with the environment through needs and their materialization. The need generates the existence and complicates it. We can speak now about sincerely spiritual without mysticism and metaphors – it is a product of the evolution of the need, embodied in the human being. “The general movement direction is the increase in the form, the growing comprehension, from the matter to reason and self-consciousness. The harmony of the person and the nature can be found again in traveling along the ancient way leading to greater freedom and comprehension” [323, p. 108].

Thus, the need as the genetic initial relation, constituting the personality, by a unique and complex way absorbs and unites in itself both biological and social nature, and during the ontogenetic development the social one turns into the biological element, but not in the adult individuals, but in the newborn individual – as in the product of love. And when this specific form of the need is realized in the ability to become the personality, it bears an initial intention in itself: the newborn individual appears to be ready for socialization. The social element is taken very easily, surprisingly easily if to consider that this is a biological individual, as a matter of fact. It is impossible to become a personality without the existence of the need; any training will not lead to the social formation of the individual. Let's say, primates have, in principle, all necessary inclinations and functions, but they are never socialized as personalities. Why not to imagine (only hypothetically) that the matter of fact is that there is no social component in the primate's heredity, and its need is exclusively biological, there is no social component in it. Hence, when meeting the social environment the corresponding needs are not formed that is why there is also no social and cultural development. But at the same time, the human child even if it is born blind, deaf and mute, bearing in itself the need to become the personality, acquires human experience and becomes it. It is the most essential. Here is the key moment.

The understanding of the need as the single inconsistent biological and social entity enables to examine more substantially its specific generations – psychological means, social aspirations and other structures the formation of which determines the orientation and the existence of the personality. Coming back to the analysis of different theories, we'll note, that they, in our opinion, simply “cover” the separate moments and aspects of the existence and development of the need (G. Kostyuk, P. Galperin, J. Piaget, L. Vygotsky). Choosing various theoretical ways, scientists came to the same (though not explicit statement) – the mechanism of the mental generation is implanted in the need. Here is the unity of biological and social components, corporal and spiritual ones. Actually, we fix now the presence of various ways to the same fundamental inconsistent basis of the personality.

It seems to us, that such understanding opens new opportunities in the study of the concrete problems, including those, which have been already productively studied for a long time. So, considering the

question of the correlation of the personality training and development, it is necessary to note, that the training should be really “run” forward the development, but taking into account that moment, which states the primordially of this relation. In fact, the need generates both the actual level, and the zone of the nearest development as it is, actually, that initial that determines mental life of the personality proper. If to return now to the sources and mechanisms of the blind, deaf and dumb child personality formation, it is necessary to take into consideration the important principle of E. Ilyenkov, who has determined *what* is primary in this process. He has emphasized the value of the social influence, and it is very correct, but the matter is not in that. These influences are very complicated, didactically and methodically are very difficult, and they really allow the child (under the condition of influence on the leading analyzers) to become a personality [188]. But another part is important also: these children have a primary, biosocial need to become personalities. The biological part appears to be so plastic, that under the influence of the social environment, existing in the single dynamic pair, it enables to develop the ideal mental, even under conditions of essential deviations. And here is the essence of the problem. If there were no need, which serves as the personality beginning and termination, there would not be this biosocial generation of a new unity – the personality.

Thus, the need is that genetically initial formation, which constitutes in one dichotomic pair the ripening of the biological individual and the psychological display of social influences, and that generates the personality. As a matter of fact, the social unit appears “on the stage” twice: first as the divided function between two individuals, then the assignment of human qualities happens and the law of the need becomes powerful, but in another active-embodiment kind. Thus, at the teenage age the need defines the social context of the continuation of the human kind. This is the “second” birth of the personality.

It is clear, why we are declined to the theoretical methodological analysis with the mysteriousness of the phenomenon of origin-generation of human life. The key moment here is the introduction of the concept of need into the categorical net. Why do we turn to it? The matter is that the category of need serves as an explanatory principle concerning the modelling nature of the personality mentality and then it is possible to talk about the personality research method.

When L. Vygotsky analyzed the above-mentioned problem in his works, he created the first method, having named it a causal dynamic, genetic, instrument, experimental genetic method [69]. Once he speaks about genetical modelling method, which, unlike experimental genetic one, should work in the social space opening mechanisms of assigning the abilities programmed by the society, and with the phenomenon of modelling the reconstruction mechanisms of the assigning. What does it begin with? We are assured that it begins with the need. When the materialized need of two individuals of opposite genders sprouts into a new life, then (according to L. Vygotsky) the biosocial creature, which is born, serves as a new creation. And S. Kostyuk was right when he said, that the person is born as a biological creature, but having the potentiality to become a personality [136.] “Having the potentiality” means, that he already possesses a biosocial need as the historical sense of the reproduction of the human kind.

Once again we shall return to the problem of how the social becomes the biological in one or even in two individuals. Why do I speak about these two individuals? Because there is the so-called “gala-effect”, which is defined by imposing of emotional-biological structures one to another, which generated that what we call is love. Where does it come from? Its valid sources are biological. However, the biological itself was assigned to it only as a result of powerful social interactions with the environment, people and society which generate that ability which is shown in love to another person – not at the simple elementary level of the reproduction of chance, but in the reproduction of itself in itself, that is – the one whom I expect to see in the future. This is my genetically initial which carries in itself both the social and the biological already at the level of ovule and spermatozoon connection: being by its nature, a social one at the beginning, it becomes the biological as it generates a new life. Generating a new life, it passes certain stages. This is well described in the literature and there are various theories, which we have already mentioned. Now we shall pay attention to that moment when a newborn child takes a position of readiness to become a personality.

The born social creature is biological at the same time, and it, actually, moves in the dichotomic pair: first, it carries in itself the gene equipment, which is realized through the adaptable mechanism, which serves as the mechanism of the development proper. But there is also

another aspect, connected with that how the married couple which serves as the attributive standard of assigning of relations of the public order behaves? It is here where everything occurs: on the one hand, as if takes place the realization of anatomic and physiological inclinations which sprout into the human potentiality through sensory-perceptive sphere, through impellent actions in which the culture is adopted as an ability (realized, which is mine), relations, behavior and norms of the social roles desirable for parents are adopted. I would like to emphasize, that we deal not with the relations “mother-child”, but with the relations “mother-father”, “grandfather-grandmother”, “grandmother-mother”, and this adult environment serves as a constituent moment and supplements the vector of the development of personality expectations. At the beginning there really is an adoption (involuntary, absolute, meanwhile on the sensory-perceptive level) of the social roles setting the intention of the personality development. Therefore, when we reflect on how to move further in our understanding of the mental nature, in the personality’s understanding, it becomes clear that it is necessary to make a start from the known mechanism, which was singled out by L. Vygotsky, S. Kostyuk, A. Leontyev, P. Galperin and A. Luriya – this mechanism is the interiorization as the process of external actions transformation into ideal actions and then into mental new formations. Actually, concept of educational activity is base on it also. But we say “to make a start”, because it is necessary to go further.

Our understanding of the category of need allows speaking not so much about adoption, as about modelling: mental, pushed by the need, causes a special – *personal action* of the person [35]. This action in the beginning (in the early ontogenesis) is exclusively affective (but nevertheless, it is personal, unique in planning, and execution). The meeting of such action with the object generates not only the pleasure from this “site” of the need; it generates cognition. So there is a cognitive need, which further develops the intelligence, forming, finally, entire cognitive personality sphere. But pay attention – we say, that everything begins with the expression of the need, that is from our own activity, and namely this, but not the pressure and hopelessness concerning the social environment, causes the process of interiorization. But to research all this empirically, the adequate method – genetic-modelling experiment is necessary.

A little bit other paradigms were the sphere of work of western scientists – such as Z. Freud, A. Adler, K. Rodgers, A. Maslow, and other personality psychology researchers. They artificially enough (though sometimes ingeniously subtly) separated partial carriers of basal instances of person which one referred to the sexual aspirations, the others – to the domination, and some – to the aspiration of self-realization; existentialists saw radical, – that defines the life sense, – in spirituality, in the problems of internal experiences of the person, in its expectations, aspirations, plans, etc. We should ascertain, that there is, however, the complete knowledge in front of us, despite its variety. And it seems to us that the cultural historical theory can “embrace” it – both home concepts (G. Kostyuk, L. Bozhovich, B. Ananyev, K. Platonov, A. Leontyev, S. Rubinstein), and many foreign theories of personality (Z. Freud, K. Jung, G. Allport, A. Maslow, K. Rodgers and so on). In fact all this are branches of knowledge, which tell about the same because a key figure there, as we say, an “ideal object” the real spiritual corporal creature – the person and his realized object practical activities. All the above listed opinions, finally, meanwhile converge in one substantial moment: unlike laws of the nature, social laws and laws of mental development are explained only through indirect activity.

Solving the task of cognition of the moment of originating and forming of the mental, we shall use genetic-modelling method.

The central principle of which for our research is the principle of unity if the biological and the social. The opposition of the biological and the social elements, in our opinion, is more likely, “adjusted” to the research problems of a certain scientist. Actually (in the logic of object) it is difficult to separate the biological and the social units in the person, the more so because the social becomes the biological in ontogenesis.

There are fundamental questions before us. How is the knowledge in the history of culture accumulated, and what “representation” in this process has the concrete person? Why does this knowledge become an acquisition of the person? And, on the other hand, why is the statement that “the nature has a rest on the genius children” sometimes correct? It is possible to explain preliminary the last question in our paradigm. It occurs because of the specific form of the “exhaustion” of a creative component of the need, which requires a pause for the renovation of power in the same way as the soil requires it after the several collected crops. And the human child, inheriting biosocial might, which brings him

to life either, does not find adequate social influences on his motivational-necessity sphere, or this sphere, or itself the whole complete need, exists in this case in some defective kind. (Perhaps, the genius has embodied the creative need in his creative products, and it simply “was not sufficient” the materializing of all the value and all sides in child). The creative component transforms the human need into the self-purpose. And here there is a multi-vector development of the abilities realizing the personality own need in the subject of culture, which leaves after itself the personality, and abilities, which reproduce the need in the human generation.

In the whole, we believe, that on the basis of the logical and psychological analysis of the theories of personality and on the basis of the previous studying of corresponding empirical materials, we managed to approach the distinguishing and construction of our own understanding of the problem, to see “the absent link”, non-elaboration and incomprehensibility of aspects, which do not allow methodologically to move further. And for this reason the theories of personality start to repeat one another, not supplementing nothing essential, but only finding new thin knots, explaining some moments in the personality behavior, his activity and creativity, but for a long time presenting no more discoveries of the essential cardinal phenomena.

So, the theory of activity, considering the activity as the explanatory principle of the psychology of the person, does not reach the sources. Nevertheless, N. Bernstein who in “an alive movement” [27] saw the reproduction of all human life was closer to them. Comparing his ideas with Z. Freud’s positions, it is necessary to note, that the latter one, undoubtedly, “managed to catch” rather subtly this initial instinct, a sexual inclination (libido) which is really inherent in all alive creatures. He has investigated the important phenomena of the “libido displacement” – peculiar symbolics, which somehow reminds “instrument” and “sign” in Vygotsky’s theory. But what has brought (and what does constantly bring) to the creation of the instrument and the sign of their assignment as abilities in the process of activity? This question even isn’t arisen.

On the other hand, Z. Freud, explaining various behavioral reactions (mainly, in psychological aspect), neurotic states and so forth, appeals to the past. But how did all this appear there, in the past? We can admit that these behavioral patterns appeared during inadequate social

influence of the environment on the need, which the individual has. If it is so, then the analysis of only this enables to say, that the need is, without exaggeration, an alpha and omega of the personality psychology (the term by L. Vygotsky). It is the unit of the analysis, which consideration is necessary to begin the personality study with. The need, I would say, in its classical variant, is shown in the act of birth, and again “appears” on the stage, expecting meeting with the world at the teenage age where it in its actual nature is shown very precisely when the period of the reproduction of the similar one begins, when the meeting again takes place and the choice of individuals of an opposite gender, which are capable to give a birth, to the third, new human being is made again. And in this sense the child is a materialized need of two adult people of opposite gender.

The need, thus, serves as a core that penetrates the personality in its life, uniting the biological and the social into the complex integrity. It is the vector where the biological and the social converge and appear in their primary common root. These are the sources, springs, and on the other hand – the exhaustive termination of life. The need always serves as a constituent – both in the social environment, and in the existence, and in the corporal organization of the personality. It is really, on the other hand, that initial, that watershed which enables to look anew at all theories; and this category comprises all paradigms, and bears in itself that wave of the new approach to the understanding of the person which is not exhausted by the motivational-necessity sphere and other separate parts of this grandiose and wonderful education.

We suppose, introduction of the category of need is necessary both into the activity approach, and in the existential one, and in the psychoanalysis, and in the deep psychology. In fact the need is the scientific fact, it is that which describes the reality, which does not only exist in the personality, but also constitutes it. In fact everything really begins with the need, which arises at the joining of two fundamental vectors of two social creatures, which in the social contact generate a new biological individual – a potential personality.

Making preliminary conclusions, let's note the essential thing: we connect the progress in the scientific cognition of the personality psychology with the necessity of the organization of researches which would fix the features of the subject of studying itself (logic of the object) in its integrity and unique specific complexity. The nature of the

personality is that that it exists as the fact only in the movement, development. Therefore, adequate for its investigation are supposed to be either the genetic-modelling approach, or the genetic-modelling method. This thesis means, that we should state our vision of the specificity of the studying of the phenomenon of the development in the genetic psychology to finish determining and to open precisely our position. Only after that it is reasonable to start a conceptual statement of our vision of the personality psychology problems.

The theoretical understanding of the experimental training experience which has been carried out in the course of the above mentioned approach, leads to the necessity of picking out the system of principles of the experimental and genetic research construction, and also revealing of the succession of the basic logical and operational structures realizing it.

The main principles are:

1) a principle of analysis by units (picking out the initial contradicting relation, which generates a class of the phenomena as a whole);

2) a principle of historical method (a principle of genetic and experimental lines unity in the research);

3) a principle of system (a principle of integral consideration of mental formations);

4) a principle of designing (a principle of active modelling, reproduction of the mentality forms under special conditions).

Principle of analysis by units. The construction and the use of the experimental and genetic method of the psychological investigation provide revealing causal (causal and dynamic) relationship, which underlie complex mental processes. The instrument of solving this problem is the analysis "by units".

The analysis "by units" is aimed at picking out the initial relation (it always exists in the form of certain contradiction in the reality) that generates a class of the phenomena as a whole.

Separated psychological unit – "a cell" – holds properties of the whole. This kind of analysis enables to single out a certain moment in each psychological whole; a moment, which holds the basic properties of the whole. It is necessary to emphasize, that a unit holds properties of the whole in a potentiality, as the capability of their appearance during their own development. These properties are the variety of

forms, specific features, in which a unit is shown as the essence of variety.

That is the essence of the complete analysis. Its primary objective is not to decompose the psychological whole into constituent parts or even pieces, but to pick out certain features and moments in each psychological whole, which would hold a primacy of the whole; the use is connected with a natural explanation of mental processes.

The analysis by units enables to find out and interpret real connections and relations that form the particular phenomenon. Such analysis should explain the appearance and the origin of the external features of mental process. It is possible at full dynamic expansion of all moments of the mental process, which always requires a certain delay in processes transition and is achieved better when their transition is complicated.

“The analysis by units” in the experimental and genetic method has united with the genetic way of scientific investigation and as a result the given analysis has received the status of a scientific basing of mental processes development. Such approach to the research has resulted in that all the mental formations as something permanent started to be considered processes.

The basic methodological requirement to the studying of the mental is the transformation of the “thing in the process”. Within the limits of such research purpose, the primary goal of consideration is naturally a genetic reproduction of all development moments of the given process. The natural experimental-genetic investigation of mental processes has caused the demand of introduction of the concepts of “the dynamic system” and “the moment of development into psychology”.

The first concept – “the dynamic system” – characterizes the existence features of mental processes as their quantitative and qualitative change. There is a complex interaction between the parts of the psychological whole; it leads to the formation of new properties, new types of interaction and interrelations. As a result of this, mental formations as dynamic systems change quantitatively and qualitatively.

The concept “the development moment” is introduced to characterize a stage of mental process development. The observation of connections between the development stages enables to describe the genesis, the transition of the particular process. The analysis establishing this interdependence between the stages is the dynamic

analysis, i.e. such an analysis, which is brought to the dynamic expansion of the main moments that form a historical course of the given process.

Thus, the main result of the experimental and genetic research is a historical explanation of what form of behaviour is it; it means to find the origin of the process, the history of its development and what has led to the present moment.

Principle of historical method. This principle is implemented as a logic expansion of the previous principle (the analysis by units). The matter is that a singled out unit as an inconsistent initial relation, starting from the requirements of dialectical logic, is considered to be the process, which has its historical beginning and end. The historical method demands observation of all development moments and mechanisms of their connection and transition. Using the principle of the historical method concerning mental formations, it is necessary to consider its certain adequacy of the state of the person under study, but in no circumstances its identity to the phylogenetic and ontogenetic development aspects.

The task of the research under these conditions is a genetic study of the structural components of mental process, which is being expanded. To cover in the research the development of some thing in all its phases and changes – from the moment of appearance up to destruction – means to open its nature, to get to know its essence as its presence is traced only in movement.

The requirement of the historical approach to designing and using of the experimental and genetic method is a specific expression of social primacy in the mentality formation.

Contrary to the traditional analysis of the mentality is the historical approach, which is the most strongly expressed in the idea of mediating the higher mental functions. Understanding of the mentality as a historical product determined the necessity of the creation of adequate – historical method of its study. The instrumental method became the one, which is also defined as the historical and genetic one.

The instrumental method is not composed similarly to traditional psychological methods such as observation or experiment: as a matter of fact, it represents a special approach to the study of the mental, that arises from the very understanding of the nature and the essence of the subject of study; first of all it is a methodological principle and a way of

psychological study of the child; this method can use any technique, that is an investigation technique: experiment, observation, test, etc.

It is impossible to state, that L. Vygotsky was the first and the only psychologist to suggest studying the mentality in its development. Nevertheless, before and after L. Vygotsky the study of mentality development was carried out by the method of transverse sections – at different age the development and behaviour level of the child, and the condition of single mental functions are measured, and then by results of separate measurements, which give the discrete points on the age axis, the general development picture is recreated.

On the one hand, the hypothesis of the mentality mediation by psychological instruments allowed overcoming the lack of this method; on the basis of this hypothesis the experimental and genetic method was elaborated. On the other hand, only such a method can have an explanation ability, which allows modelling (as if duplicate) the development process, recreating it, showing the genesis of a certain phenomenon. The appearance of this method became possible as a result of mutual assimilation of two important for psychology theoretical ideas – the development principle and the principle of the objectively experimental studying of the mentality.

The principle of development becomes initial for the explanation of the process as a whole, and the objectivity key to understanding of the real development process is the experiment, which allows finding out the essence of the genetic process in the abstract form of mechanism.

Between the true, real development and the investigated development (by the means of reproduction) there is the same relation, as between the logical and the historical: the logical is the historical, freed from its separate, partial form and accidents breaking the structure, and consequently only it enables to study any development moment in its classical form.

Thus, the only methodologically correct way of the mental development study is its experimental-genetic studying, and the main task of the educational psychology is the task of rapprochement of the morphological, experimental and genetic analysis.

The instrumental method, which is understood as a methodological principle has the meaning far beyond the scope of any specific psychology field. On its essence it forms the basis of so-called “general psychology” – middle, “mediated” part between philosophy and a

separate area of psychology. Owing to this function it is put at the heart of the educational psychology research.

Principle of system. Primarily important value for the receiving objective data about the impulsive forces and mechanisms of mental development is the choice of the system in which it (development) is considered.

In the history of psychology there are many examples, when such a complex phenomenon as the person's mentality was decomposed into more simple components. Properties, formation ways and modification of these components were studied and described; obtained data were summed up and, thus, all necessary knowledge of the initial and complex phenomenon of mentality was "acquired". Such approach which realizes the principle of the mechanism, was historically determined by fast development and impressing success of classical mechanics and physics. The cognition methods developed in these disciplines enabled to answer some questions, which could not be solved before.

Nevertheless, in the course of time new scientific facts were accumulated testifying that at the study of complex mentality phenomena a similar research method is not effective enough. From such a consideration it was not possible to find out the essence of mental phenomena, to find out the dynamics of their development.

The new approach based on the so-called principle of system, was aimed at the display of the basic appearance and development mechanisms of the mentality as a single whole. K. Marx and F. Engels pioneered the use of this principle at the description of public processes. Eventually the corresponding method of analysis, overcoming difficulties, received the appropriate place in the science of human mental life. Then the cultural and historical theory of the person mentality development became the result of using this method. And in its development the specified principle was realized the most strictly and consistently.

The cultural and historical concept of mentality development not simply declared its social genesis, although this fact alone already has the big theoretical value, but social determination itself was subjected to the dialectical and logical analysis. Considering the social as a process, it was necessary to pick out the internal and inconsistent moments, to trace their ties and dependence.

The solution of such task is inseparably linked with the introduction of the principle of the system. Contrary to the formal and logical concept of the system, the experimental and genetic method (EGM) consolidates the developing system, genetic basis of which is “a cell” as the initial inconsistent relation, which includes all components of the developed whole. At the same time EGM by its substantial-postoperative side fixes all the necessary transitions in dialectic expansion of the isolated initial relation. The transition from a less developed concept to a more developed one is caused by the principle of the system.

The set system of the concept, which is developing, demands also the setting of adequate system of object and converting actions the performance of which finally forms the corresponding system of psychological new formations at the individual.

In real functioning of EGM the principle of the system is a specific mechanism of the ascent from the abstract to the specific, connecting knowledge, which is developed, and object and converting activity, which is generated by this knowledge. Being a socially objective basis of the mental development of the subject, this activity is freed from historically developed conditions and has only a logically well arranged form, which enables scientifically to prove and organize the controlled process of the mental development.

The principle of the system embodies genetical modelling method in the educational process and acts as a necessary logical step at the designing the contents of teaching material. It anticipates the realization of the logically mental analysis of scientific knowledge and its projecting into the system of educational contents. In EGM the principle of system is a derivative from the principle of the analysis by the units and the principle of historical method, and it characterizes the historical expansion of the analysis by units.

Principle of designing and modelling of forms of mentality. The principle of designing in the theory of the experimental and genetic method reveals its qualitative difference from the corresponding structural components of other psychological methods. The experimental and genetic method is aimed at artificial creation of such mental processes, which are still not present in the internal world of the individual.

This circumstance dictates the necessity of designing the experimental model of their genesis and development, finding-out the

mechanisms of this process. Similar experimental models of these or those mental functions, these or those abilities (or processes) are created with the cognitive purpose, but they are the prototype of really functioning processes. Certainly, the designing of psychological models does not result from the intuition of the researcher. It arises during complex logic processing of the cognition results, which make the essence of human culture.

The experimental and genetic (genetical and modelling) method consists of the theory within the limits of which it has arisen; designing (modelling); reformatory (forming) experiment and diagnostics (fixing) both the intermediate and to a certain extent final psychological new formations of the developing personality.

The correspondence of the experimental and genetic method to the study of mental functions is directly determined by dialectic concepts of social genesis of individual's consciousness, of mental development as adoption of society cultural properties by the subject. Therefore it is the most adequate research way of the problems of education and the personality mental development.

The experimental and genetic method was not used and cannot be used for the investigation of the personality proper. But those real empirical results, received owing to its use, theoretical generalizations, carried out in the context of the theory of developing education, allow considering it as a conceptual basis for the creation of the study method of the personality.

By means of the experimental and genetic method mechanisms of appearance and development of separate higher mental functions were investigated: the individual using (creating) special means adopts universal abilities, which exist in the social environment in the form of materialized displays of other individuals, and transforms them into own abilities (the higher mental functions). The psychological mechanism of this phenomenon – the interiorization – is determined. It is also determined, that later on in such a way the adopted abilities, already as intrapsychic structures form “around themselves” the so-called “interfunctional psychological systems”, and determine the further processes of “growing” of the individual in culture, mediating them from inside (the phenomenon of double mediation).

These data allowed approaching closely the analysis of the person. But the particular method cannot cover the personality as the integrity

representing not the sum of separate parts, but their special organization and active interosculation. The integrity, present at the whole personality and each in particular, is specified each time according to the definite aspect, remaining at the same time equal to itself. In this sense the experimental and genetic method is “typically” nomothetic way of the investigation of the personality. Though it is also directed to determining, how this unique spontaneous system creates its own integrity, the integrity itself again remains “behind brackets” – the investigator can complete it in his own mind, reasoning from concrete and partial results.

Distinction between the objects of studying and the real research purposes predetermines different logic of expansion and technology of using the experimental and genetic, and the genetical and modelling methods.

The experimental and genetic psychological investigation provides allocation of substantial unit of the analysis in the space of scientific discipline as the phenomenon, resulting from subjectivizing the higher mental functions of many people on the historical scale. Then there is “a transfer” of the particular material in the form of a subject and its assignment in the form of an educational task as the instrument of solution of a definite educational problem. The result of such assignment is the appearance of a new mental structure of the highest level (unit of consciousness).

The genetical and modelling method aims at the study of an integral personality in the development. In this connection there was a necessity of search of absolutely different kind of “units”, and it was ascertained that was the need as an inconsistent initial unity of the biological and the social, predetermining the personality existence. The principles of the method construction reflect the nature of the existence of the studied object. The technology of the method (a principle of unity of genetic and experimental lines of the development) provides executing the research under the most “natural” conditions of the personality existence and creation of actual realization space of numerous opportunities of modelling personality development and existence.

There is another moment. Assignment of cultural and historical experience in the form of instruments and signs that begins at a certain (not initial!) ontogenetic stage occurs in the own activity of the individual directed to meeting the existing needs. It is the ABC of the

cultural and historical theory. But here there are, at least, two cardinal questions. How does this stage appear? What was there before its appearance and what has led to its appearance?

The second group of questions concerns actually the needs. In fact the individual never emotionally experiences the need for the assignment of ability. What does the phrase that this assignment is carried out during the realization of needs mean? And why is the individual (as our experimental results show) at any of early ontogenetic stages appeared to be ready for interiorization? This is in the first place. And in the second place, where do human needs appear from, what generates them?

The answer to these fundamental questions demands the creation of a new methodology as the method of theoretical analysis of the personality.

The living being which begins in a parent bosom, is initially the “flesh of one’s flesh”, a product of two human beings. The social (the whole immense experience of generations assigned and concentrated in two loving beings – parents) is subjectivized and embodied in a strange creation – a new biological being, but not only biological, namely – biosocial. The need of two, biosocial one by the nature, their need in each other and need in own continuation – the creation, generates this creation and proceeds in it, being realized in different needs, and provides what is referred to as “growing into culture”. The need acts also as the carrier of the eternal human experience (both as a biological and social being) and, at the same time, it is a source of personal activity – the activator energy of which never goes out as it is embodied and restored in a new life.

If we observe (investigate) a human child during the first period of its existence after a physical birth, our sensible experience (or experiment) gives the information of separate parts, their interrelation, and functioning. At the same time something main, very essential remains outside our sensible experience, but we know about this. We know, that this is alive human being in which the basis of existence is the influence of biosocial need, that this being is already now an embodiment of all natural and cultural experience and in concrete – of its parents, that it is ready to become the personality, and we can imagine, what it actually becomes (both biologically, and socially). This knowledge is not less real than that received in the sensible plan; it is

simply of another kind. Long time ago I. Goethe named very successfully this knowledge “an exact imagination” [80]: i.e. this is our free construction, but it is “not absolutely” free, as at the same time it is exact for being based on reliable empirical data. This is a designing of a complete object of study. But this “exact imagination” is not covered by the investigation procedures existing in psychology. It is either “meant”, or is substituted for any partial concepts-conjectures, which, in general, are not related to the object of study. It is a phenomenon before which the psychology in all its trends and displays always stopped, and declared, that not everything can be given in the experience.

We consider differently. If sensitive experience appears insufficient in the explanation of the phenomenon of the personality, there is no sense either to stop, or to accustom the idea to speculative cobwebs. It is necessary to overcome their lack by expansion and qualitative change of experience. We shall emphasize: it is a question not only of the expansion (no matter how many new methodologies and techniques we apply. If they are guided by existing paradigms, they won't help). That is qualitative change, i.e. absolutely different and new experience, which would meet the main point of the studied phenomenon.

In this case the following unity is essential: the nature is humanized; the human is naturalized. Certainly, this phrase gives nothing in cognition, but without it we can't go further, it is a reference point. In fact the humanized nature and naturalized human is a phenomenon (not just ascertaining) and as that it has different forms of existence. One of them is a biosphere as a unity, and another is a human being as a unity. This unity is caused and *kept by the need*, biosocial unit in the essence.

2.3. Genetic-Modelling Method

The scientific study of personality psychology as a real (not just imaginary) object of the research, as a unique, original and complete system, a unity, makes a great problem. The thing is that modern science lacks the main tool, a method which would be appropriate for this object of study. The method is the central link of the whole problem of personality psychology as it is not merely the means for obtaining scientific empirical facts. Method is also the means of implementing scientific knowledge, a way of its existence and storage.

In a broad generalized meaning method is considered to be theoretic means and at the same time the result of specific

objectivization of the researcher's ideas and concepts of the subject under study. Dis-objectivization happens only after the researcher receives and realizes scientific information with the help of this method.

Such conceptual understanding of the method gives the possibility to visualize the logically coherent research scheme: the scientist's views on personality psychological nature based on life facts, obtained theoretical knowledge, own experience, become problematic when facing new facts and new experience. The way out of this predicament demands new scientific empirical evidence. The method, firstly, objectifies the ideas and notions, secondly, reflects the problem, and thirdly, is the ideal technology, the key parameters of which perfectly fit the system under study, i.e. personality.

Scientific facts (not pertaining to the life!) received while using this method are theoretically generalized by a researcher, compared to previous views, other authors' study results, thus producing new ideas and problems. This logical scheme, accurately reflecting the essence of method as such, is hardly ever applied in personality study. On every stage we have gaps and contradictions. Integrity, uniqueness, wholeness of personality are recognized as its vital (attributive) properties practically by all serious scientists. But this view is inexplicably materialized in partial, fragmented methodologies for studying its separate (artificially separated at that) elements thus not taking into account the classic statement that the sum of parts never equals the whole unity. Activity is another universally recognized attributive feature of personality, unlike reactivity it means personality's ability to exist, proceeding from its own goals and ideals, and not just to respond to irritants. Then why is this knowledge objectivized solely in stimulus-reactivity methods and methodologies to which we should include tests, experiment in its classic form and different questionnaires? The same problem is present in the development research. The initial data on the complex process of self-development, heterogeneity of its mechanisms, etc. find their expression in section methodological procedures which only state peculiarities of a given moment and give no clues on the development of the mechanisms.

Absence of a method adequate to initial ideas and object of study generates scepticism and disappointment and forces a researcher to complete basic positions by himself/herself, i.e. to look for answers to

questions not in the object of study but in books and from own experience. As we can see this is far from being a scientific approach.

Gordon Allport and his work on personality theory is a typical and vivid example. Allport is one of few personologists who really understood the principal role of the method problem in personality theory and realized existing astonishing discrepancy between theoretical position and ways of obtaining empirical data, hence their real value. In most precise and clear terms he names integrity and uniqueness as essential personality characteristics and makes a necessary step towards elaborating the relevant methodology.

G. Allport divides all known methods for personality study into two opposite groups – nomothetic and idiographic. This division turns out to be of such a great importance that, as the author proves, it corresponds to different theoretical approaches to personality study under the same titles. Idiographic (morphogenic) approach means the attempt to research personality as a unique unity and calls for using appropriate methods and methodological procedures.

Nomothetic approach is generally speaking, a traditional stream, when personality is artificially dissected into component parts and some generalizations are made on the basis of a huge number of results with the purpose of making them statistically valid. Allport realized all this but in his own empirical studies he used the latter method, nomothetic, that is why his scientific texts look like dramatic works: we feel how difficult it is for him to take the path he criticizes, to make generalizations not from empirical data but from his own reflections.

G. Allport failed to create a method which would objectivize his initial position and this is his main problem. But it is also the common problem for all personality psychology. Most scientists resort to reductionism as its solution: as personality is too “big” an object first of all we need to single out some of its parts in theory, but not just any parts but substantial ones, the study of which will be close to the study of the whole personality.

This use of the so-called constituent basis of personality was without doubt a step forward. But soon a strange thing happened – every scientist singled out a different constituent basic element. Speaking of Ukrainian psychology, the elements included: direction (L. I. Bozhovych), attitude (V. M. Miasyshchev), communication (O. O. Bodaliiov), activities and motives hierarchy (O. M. Leontiev), selectivity (M. F. Dobrynin), guidelines

(D. M. Uznadze), emotional inclination (B.I. Dodonov), etc. The same process is observed in foreign psychology. Only S. Freud was fully consistent. Of course, his approach is also a reduction which is not even very well analyzed. But we are interested in a different aspect: only Freud (so far) managed to form a method, use it, obtain results and build a personality theory on their basis.

Another question is that Freud mostly ignored the attributive characteristics of personality: integrity, activity, and uniqueness. That explains why his theory does not surpass the rest – it is a partial picture formed on the analysis of a randomly selected structure which can give nothing more than what it states. If it claims to be of general application, then it brings the confusion.

Can modern personality psychology overcome the crisis of the research method? It seems that it has all grounds for it.

L. S. Vygotsky's 'non-classic psychology' (cultural-historical theory) contains important initial methodologemes, further development and comprehension of which takes us close to the creation of appropriate personality study method. According to this theory, culture is the ideal representation of real people's abilities, and the person's psyche is a socio-cultural and semiotic formation which develops in communication situations. F. T. Mykhailov notes that for psychology this statement is a valid definition of its research object: "1) formation in ontogenesis of a system-forming basic ability to have a purposeful attitude to self-being, the world, its objective conditions; 2) development of this ability in a rich variety of its manifestations (in thinking, emotions, will, attention, etc.); 3) their transformation into an integrity (unity) of the whole subjective world of a person". So, the issue is the initial (key) ability of a person which develops according to its own laws and thus unites all psychic phenomena into one unique whole – personality.

In these reflections we see an essential detail concerning the research method – unity can be appropriately studied if we examine the process of its origin and development and not only a certain result (post factum). So, here the root scientific problem of a psychological research changes fundamentally – the problem is not personality integrity as a fact but the process of its origination. In other words, personality psychology should begin not with stating the existing psychic structures and looking for means of their further analysis, but with "the problem of

human subjectivity formation, the grounds of the transformation process of objective environmental conditions into the internal world, subjectively experienced, which mediates, directs and motivates the vital activity”.

Another important methodological aspect shows itself in the person’s higher mental functions (that is personality, as we have defined it as a form of human psychic as a whole) not given as such, but as specified, and they cannot be studied unless the person receives means for their development. Generally speaking, it means the research of development and the research in development. P. Y. Galperin said: “The actual structure of mental functions is revealed only in genesis: when their formation is completed it is impossible to differentiate them, moreover, they go “deeper” and are concealed by “phenomena” of a different kind, nature and structure”.

The stated methodological principles were applied by the authors of the cultural-historical theory in a special research method – the experimental-genetic method. The sense of the method is that activity objectivization and its relevant interpsychic form is organized and built by the experimenter himself/herself taking into consideration the available mechanisms and theoretical concepts. An observer does not create incentives or register reactions, he/she organizes the development of a certain psychic process, he/she is beside, not in opposition. This is what Vygotsky emphasized: there is not only the object in front of the researcher but the researcher in front of the object. Such common movement and activity distribution really allows to study how a particular higher psychic function emerges and develops and therefore how it is structured. It is necessary to record and to underline that position of a researcher is unique here – he/she is not “in front of” but “beside”. With its structural and schematic indicators this position is similar to that of a psychotherapist (especially in psychoanalytical and humanistic approaches). But there is a significant difference – the experimental-genetic method is designed to form and study, not to overcome problems, though the latter also happens, accidentally and uncontrollably.

The logic of this method presupposes not mere recording the peculiarities of some empirical psychic forms, but their active modelling and reproduction in special conditions. This makes it possible to reveal their essence, i.e. regularities in their emergence and development in

ontogenesis of certain psychological functions. That is why the specific implementation of experimental-genetic method in the developmental and pedagogical psychology should always include a formation experiment.

While using the experimental-genetic method, unlike other methods, a researcher purposefully sets the theoretical level of studying psychic processes by constructing content-operational aspects of the object activity. Specific peculiarity of such constructing is that the model, created by a researcher for the purpose of its examination, corresponds to the real inner structure of the psychic process.

It means that the psychic process or function under study is first of all constructed as a model of a certain activity and then actualized by means of special subject activity organization ways. In pedagogical psychology such universal organization mode of the subject activity is the task, the solution of which presupposes functioning of the relevant psychic process.

The criterion for psychological evaluation of the conducted research is the extent of compliance with the task solution process which is being carried out to its model's task.

So, the experimental-genetic method itself includes ways of forming higher psychic functions which are appropriated by an individual in the process of a certain content transformation. Moreover, it is the transformation that combines genetic and structural-functional aspects of the objective reality thus setting similar structures (in the form of analysis modes) to the psychic.

But this method cannot embrace personality as an integrity which is not the sum of separate parts, but their particular organization and dynamic mutual penetration. Wholeness present in the whole personality and in its separate element, which is specified every time according to a particular part, remains equal to itself. In this sense the experimental-genetic method is a "typical" nomothetic way of personality study. Though it is aimed at determining how this unique self-developing system creates its own integrity, the integrity itself stays out of attention again, and the researcher has to complete it in his/her own mind on the basis of specific and partial results.

The difference between the studied objects and actual research goals causes different development logic and application technology of experimental-genetic and genetic-modelling methods.

Experimental-genetic research means singling out a content-based analysis unit of the science as a phenomenon, resulting from higher psychic functions objectification of many people in a historical scope. Then this material is “transferred” into a learning subject form followed by its appropriating in the form of a learning task as a means of solving specific educational problem. The outcome of such appropriating is the emergence of a new psychic structure of the higher complexity order (a unit of consciousness).

The genetic-modelling method is aimed at studying the self-developing personality as a whole. So, the necessity arose to find “units” of different nature. It was determined that it is the need as contradictory initial unity of biological and social, stipulating the personality’s existence. The principles of method design reflect the nature of the studied object existence: social, impossibility to obtain final empirical data concerning the person’s inner world (reflexive relativism). The method technology (the principle of genetic and experimental development lines unity) dictates conducting a research in the most natural conditions for a personality and creating a timely space which enables the personality to fulfill numerous possibilities for modelling his/her own development and existence.

Another point. Appropriating cultural-historical experience in the form of tools and signs, which starts at a certain (not initial!) stage of ontogenesis, takes place in the individual’s own activity directed at satisfying existing needs. This is the basics of the cultural-historical theory. But here at least two principal questions arise. How does this stage of beginning to root into a culture appear? What was there before it and what caused it?

The second group of questions concerns needs. An individual never feels an urgent need to appropriate an ability. So, first, what do we mean by saying that this appropriating is made in the process of satisfying needs? And why is the individual (as our experimental results show) ready to interiorization at any earlier stages of ontogenesis? And second, where do human needs come from, what brings them about?

Answers to such fundamental questions require creating a new methodology as a method of the theoretical analysis of personality.

A human being, conceived in the mother’s womb, has always been “one bone and one flesh” of two human beings. Social (the whole range of generations experience appropriated and concentrated in two loving

beings – parents) is objectified and implemented in a miraculous creation – a new biological creature, but... not only biological, but also biosocial. The needs of two people, biosocial by nature, their need in one another and the need in their continuation – the creation – begets this creature and is continued in it, manifesting in different necessities and also providing what is called “rooting in a culture”. The need is also human eternal experience (both as a biological and social being), and at the same time it is the source of personality activity – an activator, the energy of which never dies out because it is implemented and reproduced in a new life.

When we observe (study) a human child during the early period after its physical birth our sense experience (or an experiment) gives us information on separate parts, their interconnections and functioning. But something very important, essential stays out of our sense experience though we are aware of it. We know that this is a live human being, that the basis of its existence is the action of biosocial need, that this creature is already the implementation of all natural and cultural experience of, its parents’ in particular, that it is ready to become a personality and we can imagine what it will become (both biologically and socially). This knowledge is no less real than what we get from senses, but it is different. It is been a long time since J.-W. Goethe aptly named this knowledge “exact sensorial fantasy”: it is our free construction but it looks as “not totally free” because at the same time it is exact, being grounded on reliable empiric data. This is our projecting of an integral object of study. But this “exact fantasy” is not covered by existing psychological research procedures. It is either implied or substituted by some partial notions – guesswork having no relation to the object of study. Psychology in its all directions and manifestations has always stopped in front of this phenomenon saying that not everything can be received through experience.

We have a different opinion. If sense experience is not enough for explaining personality phenomenon, it is not the reason to stop or turn to speculative cobwebs. This drawback should be overcome by widening and qualitative changes of the experience. The important thing is that we mean not only widening (no matter how many new methodologies and techniques we may use they will not help if they go beyond the existing paradigm). We need a qualitative change, i. e. a

completely different and new experience which would be relevant to the essence of the studied phenomenon.

In this case the following unity is crucial: nature is humanized, a human is naturalized. This phrase itself gives nothing in cognition, but we cannot move further without it, it is the starting point. Humanized nature and a naturalized human is a phenomenon (not only a statement), and as such it has different forms of existence. One of them is biosphere as a unity, another one is a human being as a unity. In the latter this unity is caused and sustained by the need which is biosocial by its essence.

Acquiring a qualitatively new experience requires the new research method which is appropriate both to the object and to starting positions. It cannot be the analytical method because the need as initial contradictory unity of biological and social does not disintegrate but creates, integrates a holistic personality in its ontogenesis process. So, it should be a method which would model the genesis of personality. We will call it genetic-modelling as it demonstrates its essence in the most explicit way. (It should be noted that in development education theory genetic-modelling method is called a genetic-modelling experiment and is identified with a formative educational experiment. It seems to us that this identification is misunderstanding based on the assumption that L. S. Vygotsky used the terms “experimental-genetic method” and “genetic-modelling” as synonyms, which is very doubtful).

Personality is a complex self-developing system, i.e. it models and implements its own genesis. To study this process scientifically, which means to study personality, we should create such ways and forms of study which would not interrupt or artificially stop the process, but would give rise to it and coexist with it. Ideally it is a coexistence based on the combination principle (from a conversation with H. S. Kostyuk): we should give a personality (the object of study) possibility to function and develop freely according to its own laws, but at the same time we should purposefully give it such possibilities (natural and social) which can be empirically registered and verified.

As we have mentioned, the genetic-modelling method is not pure analysis. But as any scientific method it must include the analytic component. It is based neither on solely sense experience data, nor on merely empiric thought, but on the result of combining these two components with the third one – “exact fantasy” (or creativity). In a

holistic personality we should single out such conceptual units which would be independent and self-sufficient, would carry all wholeness in themselves and together would provide its (the wholeness) self-development and functioning. The latter is of great importance: “a unit” of a self-developing and self-controllable system is fundamentally different from those “units” which were determined by the experimental-genetic method. Metaphorically and absolutely exactly speaking, it must be alive. Keeping this in mind means leaving reduction behind.

We should not forget that personality itself is an actual “unit” of existence and development of the human psyche. And in this role it cannot be further subdivided. Human psyche is personal, which means that any research of any partial process or phenomenon will be adequate only if the latter are regarded as a conceptual branch of personality, only then it will become understandable (we should note that in psychology it does not go beyond a statement).

How can we determine conceptual “units” of personality in analysis? Genesis, existence, manifestation, self-development of personality are provided by a special and unique biosocial force – the need. The need as a contradictory, flexible and energetic unity of biological and social, as an implementation and possibility of further eternal transfer of a human to a human, as something that models and regulates personality movement, makes the initial general unit – human psyche personality nature carrier. In its action the need “meets” social and biological human environment factors and sets conceptual points – the personality thesaurus units. These units are both the structure nodes and personality development lines.

So, personality development separate lines (personality’s structure conceptual nodes) existence (functioning, development) has very strict double conditionality – determinacy.

The general course of human need “meets” environment factors (biological or social). Branches of the need appear – necessities which in their satisfaction form some specific interfunctional systems. The systems are specialized but at the same time they remain parts and carriers of the whole (the analogy to human body tissues and organs). In this way the differentiation of the personality integrated unity begins.

So, the analytic part of the genetic-modelling method is aimed at singling out conceptual mobile units of genesis and self-modelling.

Though it is vastly different from determining units by experimental-genetic method, we do not change the name of the first principle of our method – unit-by-unit analysis principle.

According to our methodological paradigm, the application of the genetic-modelling method will finally make it possible to “return a human to psychology”, as the method allows to analyze and integrate at the same time the initial system-forming personality source – the need as a unique unity of social and biological and as their activator. So, the method design is the primary and the most topical problem. At the present stage we have elaborated the main principles of its structure and application (the first of them – unit-by-unit principle – is described here).

Another important principle of the personality study genetic-modeling method reflects its basic nature. It is the principle of biological and social unity. The status of a scientific method principle does not allow a mere statement of this unity because in that case it will not be a principle. It is necessary to realize clearly: what does the unity mean?

While studying the problem of biological and social interaction in a person W. Stern formed the concept of convergence. The main point of that concept is impossibility to determine whether any human function or any of its quality appears from the outside or inside. We need to understand what comes from the outside and what comes from the inside, because both of them take part, though not equal, in personality realization. However the question is much more difficult. We think that complicated and dubious interaction of biological and social should be studied in two planes: 1) as the factors that effect personality; 2) and as the factors that create personality and provide its existence and development from within. The first plane of analysis is interaction between the human and the world around. You can really separate biological and social factors in it.

Although the latter is never actually social, because all of them are the products of the human which is the embodiment not only of social but also of biological of that integral, biosocial creature that created them. If you consider biological and social as the inner, personal feature, you will have to admit that in this case we never experience them separately. We depart from the traditional view of biological as inherited and bodily: biological and social factors do not exist separately within the human; each of them is another being of the other one. Any

thought, idea, image or necessity is impossible outside the biological structures and functions of the organism. The reverse is similarly true: every bodily structure, every bodily structure, every biological function of a human is manifestation of human nature, i.e. it is the one that originally contains biological as well as social embodiment, and psychosomatic phenomena, intensively researched by modern science, are the best confirmation of that.

The principle of social and biological unity reveals the real essential nature of the personal activity sources. When psychology states that such sources are necessities – it is wrong. Because there is a simple and logical question: where do necessities come from? Moreover you cannot explain with the activity of needs the self-movement and self-development of that complicated open and clear system, i.e. personality. And here comes the idea about the spirit, as the original source of activity that cannot be studied within the limits of modern science. The most interesting and the most important disappear again for psychology.

We assert that such kind of the original source of personal activity actually exists, and it can be fully studied. And that is the need. Davydov V. V. claimed that the need is the original basis for necessity and the question is how that need transforms into a certain necessity. He also claimed that no one had studied this before, and it is true. Davydov V. V. considers the need not in the context of activity (not in the context of personality) as its important unit, and does not even try to analyze its psychological content saying that it is a very complicated conversation of the future.

We proceed from the fact that the need is original energetic source of personality, biosocial by its nature. Personality ontogenesis starts much earlier than it is born physically. Its beginning is objectivization – embodiment of needs of two humans who love each other. A new form of need existence emerges, that just cannot exist without a material carrier (at least modern science does not know another way of biological need existence, except its existence as sociobiological energetic foundation of human personality).

The biological and social unity principle maintenance in the framework of genetic-modelling method means studying of ontogenesis from its real origin, research of the mechanisms needs of the emergence from the necessities. As a whole that means studying human existence

as formation of original biosocial unity, able to self-development in any specific – psychologic research.

The next important principle of genetic-modelling method construction is the creativity principle. “Occurrence” of the need with various objects and phenomena not just generates necessities; they cause the start of objectives and development of its own unique means of achieving the target. In fact it is the art. Adler A. claimed the presence of a special entity – the “Creative Self” inside personality that ensures human existence by its own objectives and wishes, of its own lifelines and styles formation.

That is what we mean when we use the term “creativity”. Thus the idea is the personality uniqueness that penetrates the whole life. The beginning of a new human is a result of the need objectivization of two loving humans. The human itself is a result and product of creativity. And the need embodied in it has a huge creative potential that is manifested in uniqueness, heterogeneity, self-awareness in general. Real secret and mysterious uniqueness of human awareness lies in its ability of modelling and self-modelling.

And that leads towards absolutely original correlation of the past, present and future unconsciousness. Consciousness models itself, appropriating skills, and it models the further existence of a human.

Creativity is an in-depth, initial and absolutely natural feature of the personality and is its highest form of activity. Activity, that creates something and leaves something behind, is embodied. On the other hand creativity means intention to express one’s inner world. When Losev O. F. names expression to be of one of the attributive personality features, he clearly determines that this expression is at the same time the act of the creation of this world.

To follow the creativity principle in personality analysis (and in the research) means to “take” its existence as a whole, in its unique unity. And that really means taking into consideration multifaceted, unexpected and unanticipated aspects. On the other hand it means to be aware that everything is single-valued and predictable. Everything that we try to achieve in modern experiments isn’t actually a specific case but a real artifact. And that is the main defect of modern research in personality psychology. The last one we consider to be crucial methodically, first of all, and that is why we formulate the principle of

reflective relativity that fixes inability to determine exact measures and to fix higher unique creative personality manifestations.

Self-determination through the personality's own need reveals unlimited ability for a variety of virtually all manifestations and characteristics. The presence of reflection, as one of the most interesting and mysterious consequences of bringing together the need and human life makes that life infinitely unique, reveals the real infinity of resources of self-transformation in any moment.

In general that phenomenon is commonly known: for example F.M. Dostoevsky's stated the vast depth and unpredictability of "the real, solid personality" of every human. At the same time striving of positive science for pragmatic schematization leads to very simplified concepts about human personality. Relativity principle warns of schematization and superficial predictions- our knowledge is limited and will always be the same: we truly know about the presence of reflective-creative human potential and about infinity of its manifestations. Because of that we can see the real limited and superficial attempts to schematize or to model a personality. That is why the real depth of human suffering that is manipulated or that manipulates itself is also revealed.

At the same time creativity and relativity principles reveal true content of the subjectivization phenomenon: the need in ontogenesis seems to be forming branches. Part of it exists and functions the way it was in an early childhood, the way it was at the beginning: viability and life stream in general is ensured beyond the human will. Another branch of the need is directed only at the meeting with the social world. These meetings produce higher psychic functions, target-choice, inner world passion, and creativity. That is how a subject is born.

The last genetic-modelling method principle of personality study is the unity of the experimental and genetic evolution lines. We think that it is a very essential characteristic not only of our method, but of matters in culture-historical theory in general. Vygotsky L. S. brilliantly predicted difficulties connected with the fact that the study of psychology of the higher functions in its formation leads to a fundamental (and sacramental by the way) question: if the present function is formed in the same way beyond the experimental-genetic method, in natural conditions. In other words: we form it by ourselves and we study what we form. And how can it be done without our interference? Unfortunately importance of that question was not

noticed by his followers and disciples. Unfortunately psychology has become “formative”; and even now the formative experiment is an important part of dissertations and is the main dissertational attributive. But we have to remember that science should study the subject by its logic, not by the scientist’s own logic in the object he creates. This question was left without attention, and how much more will it be more burning, when “human returns to psychology”? The main question will become the one that is now left without attention: for example when a child’s mediated memorizing is formed artificially in the way of “rooting in and appropriation”, the child by itself exists and develops as integrity. We study the discrete moment how it is grown in, and how it is appropriated. And what happens with the child’s other functions and phenomena. Here a cardinal question rises, how that happens with other children, with the children who do not have anything specially formed.

This integral personality comes to the foreground in genetic-modelling research. And we easily take the phenomenological direction, when you give yourself an account, that nothing can be modelled here (see the creativity principle), without disturbing the fragile process of self-modelling and self-development. So is there only description left? No, we are sure that combination of that natural-genetic development line with the experimental one is possible, but not in the way of formation-appropriation of abilities, but in the way of creating special conditions of revealing and “slowing down” the formation of integral units of analysis during the experiment. That should happen on the background of various (but fixed) abilities for self-modelling.

The aforesaid helps to create the ground for research: 1) the unit-by-unit analysis principle; 2) the biological and social unity principle; 3) the creativity principle; 4) the reflective relativity principle; 5) the genetic and social development line unity principle.

In actual personality researches the method described here is used in the process of specific methods (research processes) application, the main among which are observation, polling, psycho-diagnostics and experiment. These methods are quite common and are used extensively. The main problem lies in realization of the fact, that they give only initial empirical material that should be interpreted and summarized in the context of a single method.

2.4. Genetic-creative method

We assumed that the object of research is not an individual student, group or teacher, but the collective experience of participants in the educational process (educational environment). This experience is inherently contradictory. It contains as mandatory components cognitive interest (with all the requirements that ensure its satisfaction) and creativity, which implies freedom. As in a drop of water, these contradictions must come together and discharge into free action. So, one of the principles of the genetic modeling method is creativity, we turn it into a research direction and method. At the stage of theoretical development of a fundamentally new method, which has the name – "genetic-creative" – its main principles were developed and defined, namely: the principle of development, the principle of experience, the principle of freedom, the principle of interaction, the principle of uncertainty and indeterminism, the principle of therapeutic effect. Let's consider them.

The principle of development means taking into account onto- and actualogenesis as the self-development of a complex heterogeneous non-linear system, such as an individual and a group. Taking this into account is absolutely necessary because, according to our preliminary data, the initial force (need) that causes self-development is initially creative in nature. Our new method is designed to give an opportunity to reveal this creativity without disturbing the process of internalization. We believe that need, in principle, can assimilate certain universal ways of human behavior and reveal them when meeting with the environment through needs and their objectification. Need creates existence and complicates it. We can now talk about the soul-spiritual without mysticism and metaphors – it is a product of the evolution of a need embodied in a human being.

Thus, need, as a genetically original relationship that constitutes a personality, in a unique and complex way that is not yet understood, absorbs and combines both the biological and the social, and in the process of ontogenetic development, the social turns into the biological, but not in adults, and in the newborn individual as a product of love. And when this specific form of need is realized in the ability to become a person, it carries the original intention: the newborn individual is ready for socialization. The social is appropriated very easily, surprisingly

easily, if we consider that before us is a biological, in fact, individual. Without the need to become a person, no biological training can lead to the social formation of an individual.

Understanding need as a single contradictory integrity of biological and social makes it possible to more meaningfully consider its specific generation – psychological means, social drives, other structures, the formation of which determines the orientation and very existence of the individual. Returning to the analysis of various theories, we note that, in our opinion, they simply "capture" certain moments and aspects of the existence and development of needs (H.S. Kostyuk, P.Ya. Halperin, J. Piaget, L.S. Vygotsky) . Following different theoretical paths, scientists came to the same (albeit unexplained) position – the mechanism of mental generation is in need. Here is the unity of the biological and social, physical and spiritual. We, in fact, now record the presence of different paths to the same fundamental contradictory basis of personality.

It seems to us that this understanding of ours opens up new opportunities in the study of specific problems, including those that have been studied fruitfully for a long time. Thus, considering the issue of the relationship between training and personality development, it should now be noted that training should really "run ahead" of development, but taking into account the moment that constitutes the originality of this relationship. After all, need generates both the current level of development and the zone of immediate development, since it is, in general, the starting point that determines the mental existence of a person as such.

The principle of experience is the leading one in the method, by definition (recall that we consider the environment, following L.S. Vygotsky, as an experience of the environment). Our understanding of the experience is based on the interpretations of this phenomenon in the works of L.S. Vygotsky, M.V. slippers It should be taken into account that each person falls into special life situations that prompt him to experience. As noted by M.V. Papucha, in such situations, the "task of meaning" appears before a person to one degree or another, as the task of acquiring meaningfulness, finding sources of meaning, "developing" these sources. The author emphasizes that external actions perform the work of experiencing through a change in the subject's consciousness and his psychological world as a whole. Emotional processes,

perception, thinking, attention and other mental "functions" are important here. Therefore, experiencing is a special activity, a specific work, which is realized by external and internal actions of the process of restructuring the psychological world. Experiencing is aimed at establishing a meaningful correspondence between consciousness and existence, the general goal of which is increased understanding of life (L.I. Antsiferova). The range of possible carriers of experiences includes many forms and levels of behavioral and psychological processes, such as: humor, sarcasm, irony, shame, changing the constancy of perception, etc. [260].

Observance of the principle of freedom means that the learning process is directed to the formation of free actions, that is, those that are first "intellectualized" and only then implemented as real actions.

M.M. At one time, Bakhtin wrote: "... it is impossible to turn a living person into a voiceless object of complete knowledge in absentia. There is always something in a person that only he himself can discover in a free act of self-awareness and speech, which is not amenable to external absent-minded determination" [25]. We are talking about the incompleteness of the "inner" personality of a person.

In a state of real personal activity, "on the threshold" of a real life act, a person is always unpredictable due to the fact that no one (including herself) knows the real possibilities, depths ("peaks", as L.S. Vygotsky) of a personal nature. Dostoevsky renounces psychology for a reason: his modern (and current) scientific psychology is only on the way to truly knowing the meaningful foundations of personality. The same spirituality, which in the form of a potential state initially determines the personality as a possibility, then, throughout life, strengthens and develops, raising the unknown layers of nature and making a person truly incomprehensible and infinite in his formation, which never ends. Incompleteness is an unrecognized, but very important personality trait that must be taken into account.

The ability to self-regulate behavior is another essential feature of personality. It is known that for quite a long time in ontogenetic development, the balance of psychological processes is achieved thanks to the unconscious mechanisms of the so-called basal emotional regulation. These mechanisms work regardless of a person's desire, and the meaning of their work is to ensure a psychologically comfortable and stable state of the inner world. They act throughout a person's life,

but with the complication of the life situation (which is a direct consequence of development and socialization), their effect turns out to be insufficient – living conditions become too complex and ambiguous. Therefore, fundamentally new mechanisms are formed in the individual, which are consciously controlled by the person himself. The first known is the mechanism of volitional regulation of behavior. In the situation of the struggle of different, and often opposite, motives, volitional effort ensures a choice and a conflict-free further life movement. The emergence of such a mechanism is a real and significant personal asset. But it turns out that it only partially alleviates the state of uncertainty and confrontation. It has been proven in experiments that the internal confrontation of motives does not stop completely after a voluntary action and a state of psychological comfort, as a rule, does not arise (the theory of cognitive dissonance describes this very vividly). Tension and internal conflict accompany the action of this mechanism all the time. Why then, in this case, there are many situations when the tension really subsides and the personality turns out to be self-regulated? The highest and most complex mechanisms of self-regulation of behavior can be carried out only by the whole personality – whole and integrated. Therefore, it is possible to single out the following successive stages of the formation of self-regulation in the system of personality integration: basal emotional self-regulation; volitional self-regulation; meaningful, valuable self-regulation.

2.5. Basic Psychology Methods. Observation. Experiment

Observation plays a very important role and is very widespread both in everyday life and in scientific research. Observation is purposeful, voluntary and, as a rule, is a specifically organized perception of different reality phenomena. From simple watching, that has similar characteristics with observation; the last one differs significantly with having a goal that guides not only the organization of particular observation, but also the choice of observation object and subject, the sphere phenomena to be observed.

Observation itself is the most immediate way of receiving scientific data and this is where its unique value as a scientific cognition method comes from. Owing to its immediacy concerning the objects of observation and non-interference in the course of actions this method became the first and initial form of cognition.

Observation as a method of scientific cognition has a number of specific characteristics that differ principally from observation as a kind of activity (for example professional). In the method interpretation, as it was mentioned earlier, its following characteristics are named: a method is a socially created and fixed system of regulative principles and theoretic cognition activity. Thus method is a “manual” for practical actions and comprehension of facts. According to this we can determine some specific features of the observation method.

The definition of observation as a method of scientific psychology should include: the essence of specific psychological observation; possibilities and limitations of the method; its connection with other methods of psychological research and showing in this connection the advantages and disadvantages of observation as compared to other methods of psychology, structure of the observation process as a special cognitive scientific activity; kinds of observation and their distinctive features; subject equipment of observation; means of interpreting the obtained empiric data and their theoretical comprehension.

Before we start speaking of the essence of observation method in psychology in detail, we should mention that it is one of the primary data collection methods, moreover the method of direct receiving of such data. This means that observation stands in the same line with such methods as experiment, poll, test, analysis of the activity products, etc., having the common feature: the data obtained with their help are further processed and this differs them essentially from statistical and other methods of data processing.

So, the main feature of observation is its nonintervention in the course of the observed events. This feature, as it will be shown further, gives it a number of advantages, but it also points out its drawbacks in comparison with other methods of psychological research.

According to the purpose of the research and taking into consideration reality, situation, conditions we can talk about the observation methodology that is about a choice of the specific observation type, ways of data recording, and selection of units for phenomena evaluation dictated by the plan and situation.

Methodology means somehow fixed, clearly stated for others to understand, subjectly represented system of means for empiric data collection and processing that corresponds to a specific circle of scientific objectives. Observation methods first of all differ by the

observer's activity types (types of observation); by means of dividing phenomena for research (choosing units for evaluation); by peculiarities of data fixation (entry, audio and video recording and so on or selective or total event fixation), in other words methodology is a complete and detailed description of all observation procedure phases. It must include choosing the object of observation, a scheme or a plan of observation process, description of standardized evaluation procedure, work organization description.

Thus the observation method in psychology is a specially organized, purposeful, systematic and planned perception of the researched object. As it was mentioned above, a number of specific features are typical of the perception as a method of psychological research. All these features come out of the specific nature of the psyche as an object of research. One of the most important features of the psyche is impossibility to penetrate it, i.e. an observer does not know the feeling of a human being observed. Another person can imagine someone's feelings only partially, because he or she was in a similar situation before and has a motive to assume, that his/her own feelings are similar to the feelings of those being observed. Observation can be a scientific method only if psychic reality has outward expression. We should emphasize that the observer should never make such conclusions as: "N. did not go to school because he wanted to go to the cinema", because the researcher can never know for sure what an observed human being wants, and conclusions can be made only on the basis of what a person has already done.

Objectivity of the observation method is based on the fact that psychic activity is somehow expressed outside. Just by external expression you can make conclusions about some psychological features; but the most precise conclusions could be made according to someone's behavior, condition and other exclusively external characteristics.

Properly organized observation gives valuable material, moreover it is often impossible to gain it in other ways, especially when it concerns some unpredicted reactions by the scheme of research, expression of attitude to the situation under research and others. That makes it an indispensable method of psychological research, especially in the studies of age psychology, taking into consideration very widespread usage of experimental methods.

But for observation to become well organized, first of all you should realize which characteristics of psychic activity can be the object of observation, and which can not. Clear understanding of that contributes to determining the exact purpose and objectives of the research.

Thus a particular person or a group of people can be objects for observation, and the subject of it can be the outward expression only: which include motor components of practical and gnostic actions; moving and statics of humans; the distance between them; common or joint human actions, and also touches, pushes and other physical displays of interaction; acts of communication, their content, direction, frequency, duration, intensity, features of expressiveness, person's vocabulary; mimicry and pantomimics, sound expression; outward expression of some vegetative reactions: blushing or paleness, changes in breathing rhythm, etc.

You can observe situations that happen in real life naturally or those that are artificially created and differ by kinds of activity, human interaction, and spontaneity of their actions and so on.

Objects of the research usually are as follows: general social situation, with the people under observation; subjects or participants of particular events; the purpose of activity, structure of activity; regularity and frequency of phenomena being observed, typical character of situation etc.

Here a single human or a group of people are observed in terms of communication acts, expressive movements, physical actions, movement activity, appearance, objects, with which people deal, products of activity, people, with whom the examinee communicates.

If we try to specify the sphere where observation is indispensable then it would be social behavior first of all, because the researcher's interference distorts the real picture of human relationships.

Besides, observation is often used on the initial stages of the research for learning the research field and making acquaintance with the research participants. Observation is also used as an additional method: 1) in complex researches as one of numerous methods; 2) within the limits of one research for finding out difference between the real and desirable behavior.

There is a number of factors complicating objective observation for making conclusions about the "inner" on the basis of the "external". First of all it is manifold connections of external manifestation of objectivity

that stands behind them and that factor does not often allow making conclusions about subjectivity. Besides, the difficulty of psychic properties regulation leads to the situation, in which one and the same phenomenon can be connected with different internal preconditions and vice versa, different external phenomena can be caused by a single subjective condition. Moreover, individual peculiarities of a specific psychic state manifestation can differ greatly. That is why the necessary condition of observation objectivity should be avoiding “evaluative” opinions of the researcher and necessity to record solely what is seen. We should mention that a number of psychological phenomena cannot be an object for observation, for example, directives, intentions, interests, relationships and attitudes, longings, motives, etc.

The key demands and procedure of carrying out observation.

There is a number of compulsory rules in order to enhance observation reliability and quality: 1) systematic and repetitive character of observing a particular phenomenon in different time and situations. (It is necessary to make a conclusion about recurrence which means the phenomena is not accidental); 2) avoiding evaluative opinions, necessity to check alternative hypothesis; 3) carrying out observation by several observers; 4) comparing a separate behavior section with the general situation, with the observation context.

The important condition of enhancing observation objectivity is the necessity to record not a separate fact taken out of context, but to record a person’s action or reaction as a part of the overall picture of the situation, because one and the same external result can have multiple psychological sense depending on the situation in which it was obtained. This requirement is especially important if we make observation of the unsteady phenomena (i.e. child’s psychic development), that is why the more systematic the observation is, the more complete picture of the phenomenon you can get.

Difficulties that appear during the observation can be caused by peculiarities of the object for observation; by peculiarities of observation as a kind of activity; by researcher’s peculiarities; by the fact of the observer’s presence.

A number of requirements for making observation are caused by the very nature of observation as a kind of activity. In particular, such

observation peculiarity, as observer's non-interference with the course of actions, produces specific features, that under various circumstances can be either advantageous or disadvantageous for observation as a scientific method. For instance, the forced wait-and-see position makes the observer dependant on whether he gets an opportunity to notice the thing he is interested in. This circumstance is often an observation limitation in comparison with more active psychological methods.

There is no doubt that passiveness, observer's non-interference makes it possible to get valuable data that are impossible to receive with other methods: ability to see the whole situation, not its separate fragments or features; possibility to study phenomena in their most natural form, without distorting the course of actions. It is important that observation (as well as a conversation) gives the opportunity to notice and record previously unknown phenomena, whereas the experiment more strongly depends upon the plan. All that is the result of the minimal observer's influence on the phenomena under study that makes room for spontaneity and unplanned actions.

An important part is also played by peculiarities of the very process of perception that forms the basis of observation activity. It is known that perception as a psychic process is characterized by selectivity; as a result some actions may remain unnoticed. Besides since the observer deals with an integrated situation, a big section of human behavior, it is sometimes difficult for him to record the course of actions according to the chosen units of evaluation, because situations are often manifold and uncertain. How passive the observer might be, there is always a particular purpose concerning phenomena being researched. Difficulty is in the fact, that such purposes are not realized and even the most dutiful observer is unintentionally tendentious. That is why we especially emphasize the fact that the observer is obliged to record the facts "as they are" and not to evaluate them in any case.

A number of circumstances cause errors in observation and are contained in the observer himself/herself, in his/her subjectivity. As for perception selectivity, that was mentioned before, we should say that it may be reduced by the observer's sensibilization to perceiving phenomena, important for him/her, in this case it is the observer, not a stranger, interested in the results, who can notice more precisely. On the other hand, a strong directive prevents unprejudiced perception,

because we can often see something that did not actually happen; we may confuse the desired with the real.

The other factors causing errors may include the observer's personal traits: individual tempo, individual style, temperament, emotional stability, stamina and others. Exclusively personal features also have meaning, especially peculiarities of psychological defenses (for example, phenomenon of one's personal features and problems projection). It happens sometimes that projection is made on the unconscious level and it seems to the observer that in this particular situation some phenomenon is a manifestation of some internal feature (the one inherent for the researcher). In reality such kind of phenomenon may have a completely different psychological meaning. We should also mention that such errors make a big part of non-objective results in observation.

Besides, errors may be caused by: 1) the difference in the social position of the researcher and examinees; 2) the first impression; 3) previous meetings that help to form a definite thought; 4) the phenomenon of satiety with monotonous activity.

To meet all the requirements on carrying out observation, you should have a clear plan of the research procedure. As it was mentioned, many specific moments directly depend upon the aim of the research, thus, observation starts not with the observer's actions in data collecting, but with a research program elaboration. The more detailed the program is, the more reasonable material the psychologist will get.

The program itself consists of the following stages: defining the problem, choosing the observation subject and object, forming the aim and the objectives of the working process, interpretation and defining the main concepts, preliminary theoretical object analysis, making the main and working hypothesis, data collection, their analysis and interpretation.

The starting point of the whole research is choosing the problem. Although this condition is obvious it is not easy to define the problem. This is especially true for pedagogical psychology. On the one hand, as we talk about a real teaching and educational process in the real school, the problems seem to be lying on the surface; they are dictated by the life itself. But on the other hand if you analyze psychological-pedagogical works they will not always contain a problem to say nothing of its solution. Without analyzing particular works we can point out two

negative extremes, seen in the different works: the problem is formulated either too broadly, and then conclusions are too broad; or in order of the deeper studying the problem is unreasonably narrowed, and as a result, conclusions describe too complicated mediated connections between a limited number of actions, and that is why they are too analytic that complicates their usage in the practical sphere. Such situation is typical of some foreign works, when, a detailed and thorough research has conclusions which are absolutely obvious even without a special study.

Thus the crucial part in achieving some results is played by the observer's theoretical position and the purpose of a research.

Types of observation and peculiarities of its realization

Depending on the aim and hypothesis of a research, observation can be expectant, researching or selective and directed at a particular hypothesis verification. Since observation, as a rule, is used in complex with other methods of psychological research, it often serves the aim of preliminary study of the object of the research until a hypothesis is made. In such case observation will be expectant, because its main purpose is observation without strict selection of features and phenomena – observation of all that is happening. Very often you are forced to apply such kind of observation in age and pedagogical psychology, for instance, when there is a need to clarify the influence of some pedagogical method, the behaviour peculiarities under specific conditions, for instance, in closed groups etc. Elkonin and Dragunova's research, whose goal was revealing the actual teenager's behaviour is an example of such kind of observation.

Hence a teenager was under observation throughout the day: in classes, after school, in clubs, when making public assignments and so on. All behavioral manifestations were recorded.

The observation methodology will be completely different if the aim of the research is a particular hypothesis verification. Then a clearly developed plan, definition of observation units, description of all observational stages, ways of data recording become crucial, causing the problem of strict selection of certain behavior factors out of the whole range of the observed actions. Examples of such observation can be found in the works of Piaget J. on studying the intellectual development

stages of children, as well as observations in revealing developmental peculiarities of cognitional activity depending on the studied material, etc.

The aims of observation can differ by generalization degree, moreover the more general the aim is, the less regulated observation will be. Unregulated observation is also made when the aim is not determined in the proper way; hypotheses and aims are not formulated. Besides being used in the initial phase of the research observation is also used in cases, when you have to trace distant consequences of influence (for example within the forming experiment). But under equal conditions preference goes to the regulated observation, because the more standardized the research is, the more authentic its recurrence and control of the conditions for its implementation can be. The aim of the observation determines not only its kind, but also determines the whole procedure, in particular choosing units for observation. An observed phenomenon can become a scientific fact only after it is described in proper way. But you can describe the emergence of a discrete process that is why it is necessary to separate a chaotic flow of actions into some measurable fragments, i.e. to make a scale of units for evaluating the measure of a phenomenon. Choosing units for evaluation gives an opportunity to limit the observation process, to choose the conceptual system for description of the research and in some cases to reject the hypothesis even before the beginning of the research. For instance, if we study effectiveness of the pedagogical method, that should influence the efficiency of solving tasks then it is enough to record the accuracy of their solution; if we study the influence on the development of thinking, then the units should be intellectual operations; when we study the emergence of a cognitional motivation, then we should not leave mimic and pantomimic emotion expression unattended and so on. Of course several kinds of units can be used within a single research.

Great requirements are brought forward to recording the observation, or to other ways of data recording. The main requirements are: 1) the record should be factological, i.e. is only the phenomena that cannot be substituted by generalized evaluation or characteristic should be put down; 2) compulsory record of the whole situation, not its fragment, that is the background of the action should be described; 3)

the record should be precise: to reflect all the events, that are related to that hypothesis, and also those that contradict it.

The record can be very different by form: data logging, record in standard forms, diary record, audiorecord, video-, photo-, and video-record, graphical and so on. If it is a protocol then it should be continuous without special system of headings. Since continuous protocols are necessary in many cases and they are hard to make, it is better to entrust this work to a few people, which not only makes the job easier, but also increases record objectivity. Diary recording is used in prolonged observations, e.g. in longitudinal studies. Since the record and the observation are often separated in time, you should pay attention to the fact that it should be made after the observation as soon as possible, because it is commonly acknowledged that immediate recreation of events or facts differs much from a distant one in effectiveness. But with the help of the observation you can receive not only qualitative but also quantitative data: if you make the so called quantitative description. The scale for evaluating the measure of a particular event is used for it. Quantitative data are also achieved during measuring the time of a phenomenon activity.

Timing is necessary for recording the separate manifestation of the phenomenon. You need to recognize a phenomenon quickly and also clearly determine its beginning and end. Grading is done mostly in the form of adding points to some phenomenon, depending on its intensity. Sometimes it can be intensity-duration chart construction, but in any case you need to stipulate clearly the procedure of marks addition (that means which intensity is taken for one point, which for two and which is the maximum). Recording of the events in the form of symbols is also effective. This makes it possible to minimize distraction on recording and to pay more attention to observation, and also makes the analysis of result easier. The most recognizable symbolical record is a famous work of Klimov E., the aim of which was determination of working time distribution. Therefore every elementary move was marked with a particular symbol, and then with the help of these symbols the observer could not only record all actions accurately, but also could get easily processable quantitative material. Flanders' method is similar to it, it includes qualitative features recording, according to pre-determined categories: "approves the student's actions", "develops actions", "explains", "develops one's own ideas", gives "instructions",

“indications” for the student to perform and so on. But here, as in observation in general, it is crucially important to clearly determine, where one’s own idea is explained, and where there is a simple explanation; the difference between strictness and the rudeness.

Thus depending on the object aims, objectives, research observation can look differently.

We should especially note the role of observation in studying the problems of age and pedagogical psychology. Despite the wide spreading of experimental methods, observation does not lose its positions. That, first of all, is caused by peculiarities of the object of study. A child (this especially concerns children of the preschool age) is a difficult object for experimental research and study with the help of such methods as polling, interview and others. Instability and changeability of attention processes, comparatively low level of self-control, unformed motivations, undeveloped communication and, finally, difficulty in understanding instructions of the experiment stipulate the limits of experimental methods, laboratory in particular.

Besides, ingenuity and frankness of children’s behavior, and “transparency” of their intentions make it possible to receive very authentic information, if you compare using observation with the adult’s behavior research. These circumstances let us name observation as one of the main methods of age and pedagogical psychology, and, as a fact, the only one in educational problem studies. Observation in this field of study has the same requirements as those for observation in general, but there is a number of conditions, that demand special attention.

For the solution of different research problems various types of observation are used. For instance, depending on the observer’s position we can select such kinds of observation: participant, non-participant, partly-participant; extraspection and introspection conscious and unconscious. In pedagogical literature such kinds of observation are singled out by these criteria: when the researcher acts as a neutral person, as a supervisor and as a participant. Neutral observation is a general instrument in solving scientific, control and generalizing tasks.

Depending on the observer’s position and his activity we can research and distinguish expectant and forced observation. Classification can be made on several conditions: whether the person, being observed, knows that he or she is an object of observation (conscious and unconscious), and

on the basis of type relations between observers and objects of observation (direct and mediated). Direct observation is a kind of observation, when there is a direct connection between the object of observation and a researcher: observation gives the material from the primary source, and that is why its data are the most authentic. Mediated observation is done not by the observer himself, but by the instructed persons. There is also a formalized (with clear structure) and non-formalized (if the aims and objectives are not clearly formed), continual and discrete; discrete and multiple; narrow and monographic (if an integrated flow of behavior is studied, for example in the case of teenagers' behavior study mentioned above).

By the type of the observed situation observation can be natural and experimental, spontaneous and organized, standard and non-standard, natural and experimental and so on.

Let us look at peculiarities of some types of observation most commonly used in pedagogical practice and age psychology. The simplest of them is neutral ("neutralized"). As a rule, it is non-participant observation that can be field (performed in natural conditions) or laboratory, systematic and selective etc. This type of observation is usually used by research psychologists, students of pedagogical colleges, school headmasters and others. It is characterized with the fact, that the observer studies a particular phenomenon "in a pure form", without interfering with the events. Such kind of observation is the most passive one. Its results can give valuable material, because an outside observer is less bound by obligation concerning some students or the whole learning process; he looks at the situation from the outside, that gives him a chance to be more objective, unprejudiced. But the main problem of such observation is effect of demonstration mentioned above, when students (and the teacher) behave not very naturally, not like they would behave without a stranger present. The complexity of the problem is that such demonstrative behavior is almost never realized, that is why it cannot be removed, even if the examinees sincerely want to be natural.

To reduce this effect the following methods are used: observation is made with the help of recording devices or through the Gesell mirror (one-way, transparent only from one side), that is hidden observation is realized. But such opportunities happen seldom, besides in a number of cases it may be unethical. That is why, as a rule, the observer should

make people get accustomed to him/her; he should get acquainted at least a little with the teacher and individual peculiarities of his job. Remember, the older the kids are, the more demonstrative the effect is. The most suitable age category in this case is the youngest. This kind of observation has the advantage that it can be made in a few ways that enhances data objectivity.

In the number of cases the observer is a teacher. Such kind is a sort of a so called field observation that is when it is realized in natural conditions, in situation of the direct conversation, "in the field". From the observer's point of view, this can be the scheme "observer-supervisor" (in sociological terminology it is a partially included observation).

The position of the observer-supervisor is the most favorable from the point of view of comfort. Human directly connected with school is in more favorable situation than a stranger. He or she can fully consider different circumstances that accompany the process of observation, in particular, distinguish faster and easier the essential from the non-essential in the behavior, because he or she knows behavior typical of every student in a particular situation. Besides, the position of a supervisor allows regulating the course of the lesson, to create spontaneously necessary situations to, correct the research procedure. But this kind of observation also has some drawbacks, in particular: difficulty of simultaneous observation and control of yourself and students; presence of some teacher's biases concerning abilities of students.

The position of the researcher-participant is valuable because the researcher feels the same as his examinees. That is why he can enrich the result of observation with valuable data that are not always noticed by people, who are in other positions. Besides the participant performs the role of "a highly qualified examinee" and evaluates nuances of the results and peculiarities of the method application. But this kind of "getting the feel of one's role", "dissolution" in a situation also makes facts record biased. The desire to make the best impression can be commonly seen (that is, taking a position of the examinees, the observer starts making the same mistakes as they do).

In fact such division of observation coincides with its classification on participant, non-participant, and partly-participant, but the first classification is pedagogical, and the second one is sociological.

Observation remains one of the main methods of pedagogical psychology. Despite the fact that the psychologist depends upon emergence of the fact that interests him, he has the opportunity to observe this fact, with the least distortion of the integrated situation. This is where the main advantage of the observation method is. Another positive feature of observation is the ability to record phenomena, facts, that are happening in real life; facts of natural behavior in natural conditions. Direct recording of phenomenon is the best precondition to cover the whole "fragment" of natural behavior, real condition of reducing incorrect interpretation of a separate action, reaction or any other singular manifestation. Herewith every observed person appears as an integrated personality, and his every manifestation may be perceived not in isolation, but in the context of general behavior.

A big advantage of the observation is the possibility to analyze behavior of a group of people at the same time. This makes it a very valuable method, because experiment, having also group forms, gives less opportunity for such integral analysis.

With the help of observation the researcher has the opportunity to make a more detailed description of the people observed, to characterize them on the basis of different criteria of evaluation, to take into consideration not one, but many their reaction peculiarities, in other words, to record a lot of parameters at once, moreover it may be done without special planning, i.e. "on the run"

The researcher can notice peculiarities of the mood, emotional expression, and face expression, to characterize language, gestures, mimicry, space-time relationships of the acting person.

Another advantage of observation is not so strong, as in experiment, requirement to follow the plan of observation, possibility to describe events not predicted by the plan, to put questions, to change the situation in the class, to correct actions. It is the advantage of the observation not only in comparison with the experiment, but also with test, questionnaire, socio-metric methods, etc., where accidental events are not taken into consideration. Observation independency from human readiness to be observed is also important. Such readiness to become the object of study is essential condition of carrying out tests, polling, experiment and so on, and in the observation the readiness can be negative. In psychological study it is the observation that lets see the connection between the teacher's behavior and student's actions

immediately and quickly, to notice interaction nuances of the student and his friends.

All that proves the fact that observation will be used in child study in future, moreover, that while making an experiment the researcher is absolutely responsible for the consequences. That is why, as almost all pedagogical experiments have the aim to verify effectiveness of a particular methodical device, observation is significant in the following: it plays a role of the final “verdict” to the experiment, and the latter should be stopped, if the observation data show the groundless intention (especially if we talk about diligence, moral and aesthetic concepts formation etc.)

We need to remark, that along with advantages observation is characterized with a set of disadvantages that narrow in some way the sphere of its usage. In different situations peculiarities of observation as a method, as we mentioned above, may become advantages and disadvantages of observation. They depend on the researcher: his interest to appearance of the fact, non-objectiveness of facts registration, inability to register absolutely all events; uniqueness (originality and non-reproduction) of observation data.

Observation is more often used when, more sufficient “volumetric” research is necessary, where the aim is set widely enough. If the atmosphere of the interpersonal relations in the class, conflicting, frequency of interaction is studied, then the most valuable material will be given by the results of sociometry and observation; but when compatibility is researched as one of the components of psychological atmosphere, it will be more logical to apply experiment, because compatibility may display both on the level of reactions correspondence, and on the social-psychological level. Observation turns out to be the most efficient with studying laws of school group functioning, leadership forms, existence of the leader of any type, solidarity level, etc. But observation cannot reveal latent (hidden) trend to leadership, as the object of its research are just the facts that lie on the surface of behavior. Hidden trends to leadership may be revealed by some complicated survey methods and so called projective methods of research. That is why age peculiarities of amount, randomness of attention its more appropriate to research with the help of experimental methods, and the level of students’ attention is observed the best;

researching relations with the help of sociometric methods must be obligatory added with observation.

Observational learning, as a method of objective research, is widely used in psychology, pedagogical practice and sociological researches.

The object of observational learning is a personality behaviour in its various external situations, when aware and non-aware internal psychic states, experience and aspirations are realized with the help of the speech peculiarities, distinct motions – gestures, mimicry, facial expression, pantomime acts (poses) etc. one can express and observe peculiarities of attention, understanding of utterance sense, emotions and volitional qualities, temperament peculiarities and features of character traits. That is why a skilful observational learning of child and adult's behaviour gives an opportunity to make conclusions about their internal spiritual peculiarities with high authenticity.

Observational learning may be *usual* (vision, audition) and *instrumental*, when something seen or heard in person's behaviour is fixed by means of photo and video cameras or tape-recorder. Instrumental observational learning gives an opportunity to document everything, which is observed, and that is why it is possible to analyse and compare it deeply.

The psychological scientific observational learning should be distinguished from an ordinary one. Scientific observational learning is not limited by the description of externally expressed aspect, but it penetrates into the phenomena essence, explains the causes of the acts of behaviour and by its means brings their psychological nature to light. To teach and bring up a child, it is necessary to reveal psychological mechanisms or the basis of observed aspects, use them in teaching-educational activity and develop and improve them.

Non-permanent observational learning after some phenomenon in personality behaviour and activity is insufficient to make deductions about one's psychic state, mind, sense, will, character traits and moral qualities. In order to avoid accidental affirmations, it is essential to carry out several observational learning of moral-psychological peculiarities under different conditions and on the various materials. By non-permanent or accidental successes it is impossible to judge about personality abilities, force of one's memory or thinking.

In order to make observational learning to be of the scientific character, it is to meet the certain requirements. They are the following:

- to be purposeful, but not accidental;

- to be realized systematically according to the plan;
- to be provided with sufficient information about the observed phenomenon (by a great amount of facts);
- to fix the observational learning results exactly.

The scientific observational learning put definite requirements to personal qualities of the researcher as well. In particular, the person who is involved into the research process, have to have such qualities as:

- to be objective during fixation, verbal description and observational classification;
- to control one's temper, ie one's mood and personal characteristic qualities should not influence the process of observational learning and its conclusions;
- not to be tendentiously prejudiced in the process of observational learning organization and expectation of its results in order not to make unsupported conclusions;
- not to judge by the first impression about an experimental person;
- not to be indulgent for the experimental person;
- not to ascribe to experimental person his own qualities and not to comment on one's behaviour from his own position.

Objectivity is to characterize the whole research process and be an attributive factor for conclusions.

Observational learning requires exactness in data fixation. For this purpose a researcher uses some specific forms. For example:

Form for observational learning results fixation

The date of observational learning.	Conditions under which the observational learning is done.	What is observed.	What has been found during observational learning.	Explanations of observational learning.
-------------------------------------	--	-------------------	--	---

Observational learning is used in application of all other investigation methods of the personality psychic processes and qualities.

One of the most effective and fruitful methods is considered to be experimental research, when an investigated phenomenon is learned under the different conditions and circumstances. Due to such method

one can study investigated psychological conformity to natural laws deeply and with a high degree of exactness as well.

The age and pedagogical psychology deals with numerous multifaceted phenomena in the process of studying psychological regularities of learning and mental development. In order to discover the mechanism and laws of development and formation of these phenomena, together with factors that cause their appearance, we need to develop corresponding methods of research. These methods will enable us not only to reproduce these phenomena in the form of certain models, but also to control them.

Experiment and its numerous types is one of such active methods. Psychology in general, as well as age and pedagogical psychology in particular, owes its achievements to experimental methods of research.

Scientific experiment can be determined as an instrument of objective reality cognition. During an experiment the reproduction of objective phenomena is conducted in “pure form” and under the conditions set by a researcher. While conducting an experiment it is also possible to create new artificial subjects and studies, new correlations that do not exist under natural conditions.

Among structural components of an experimental research there can be named observation, fixation, estimation of research data, and comparison of results provided by research and control groups with the help of special methods.

Experiment is a sensory-practical activity that is performed with the help of theoretically cognized means. Experiment can serve as a method, way or instrument of subject cognition. Cognition itself is based on an integral life process, combining sensuality and activity.

Placing this sensory-practical activity in the basis of cognition leads to understanding a method of cognition and experiment in particular as a specific form of this sensory-practical activity.

As a variety of practical activity, experiment exceeds the limits of pure science. Today experiment is an important means of scientific research included into empirical methods of scientific cognition, though scientists have not yet come to a common point of view as to its place in the methods classification. It is generally accepted to divide methods into specifically scientific (special) and philosophical. Specific methods comprise those researching special sciences in their interrelation.

Theoretical methods assist in achieving the highest synthesis of knowledge (in the form of scientific theory). This can be named a higher level of cognition. However, the boundaries between these levels are rather conventional, as they tend to penetrate into each other. Experiment interwoven with theory is guided by the latter, and theory determines the direction of experiment. The mechanism of abstraction acts within the experiment, resembling the mechanism used by theoretical thinking. That is why experiment can be viewed as practical abstraction.

Another indispensable part of experiment is idealization. In this process we use notions, judgements, reflections and conclusions. A special role in experiment is played by idea, theory, hypothesis or scientific foreseeing. That is why it cannot be named a purely empirical research. An experimenter foresees the process of an experiment beforehand, imagines certain sequence of operations, weighs technical possibilities and experimental means, etc. An experiment acts as continuation of theoretical activity. The latter is an organic structural unit of an experiment's conduction.

Experiment results become research basis of general-theoretical statements and formulations. Experiment is a logically grounded continuation of theory: without it the latter is unable to attain its scientific form.

With the help of this research method a certain scientific idea is verified and grounded, having been at first created in conceptual, abstract form. Experiment does not exist beyond idea and theory, as they are closely interconnected. Refusal from experiment prevents theory from being called scientific. That is why broad unfolding of experimental research is one of the most important main-line ways in developing modern science. Any new science is evaluated in terms of methodology. Science maturity is usually displayed through its methods.

Theory is transformed into method of research only in case it has been completely mastered and at the same time is being used. This thought was quite precisely expressed by soviet psychologist S. L. Rubinstein. He noted, that a fundamental method adapted to reveal certain phenomena nature, always appeared in science as a result of research or studying. For example, conditioned reflexes, which at first were the subject of profound research, later turned into its method. The

latter then was used in studying the activity of cerebral cortex and its processes dynamics. The results of a research revealing some significant dependences and correlations concerning the studied phenomena, later turn into a method and become the instruments for further research.

Hence, experiment as cognitive method was formed on the basis of social practice, with which it is closely interconnected and expresses specifics of cognitive activity. Human can actively influence an object of research and thus specially creates conditions for multiple revealing of a researched phenomenon. Interaction of all artificially varied components in experiment leads to creation of the model of that part of reality, qualities of which are being researched. The use of such models is an important peculiarity of experiment. Domination of object-manipulation and speech-perceptible side in it is caused by the process of receiving information about the object while directly influencing it. In this case it would be appropriate to quote Hegel's words that here we act against the nature with its help.

Activity of influence on a research object distinguishes experiment from observation. An experimenter does not "listen" to the nature, but puts questions to it.

A scientific experiment functions as a special part of scientist's practical activity, which is aimed at transforming social and natural phenomena and is a specific medium link. On the one hand, it unites theoretical apparatus of science with objective reality. But on the other hand, it directly connects a scientist with objective correlations of social practice, in which an experimenter discovers truth criterion of his ideas.

Experiment cannot be limited to passive observation, registration or recording of facts. Its main functions are creation of new items like connections, correlations or relation of a researched object and its transformation under certain controlled conditions. The experiment task is not limited only to describing and recording of data, but includes active research with the help of changes and transformations of material reality.

Differences between observation and experiment do not mean their complete disparity. Surely, experiment comprises observation as its component. It gives reason for some researchers to distinguish a simple observation from an experimental one. With the help of the latter they at the same time change an experiment proper. The reduction of experiment to experimental observation seems to be a completely

incompetent approach. During observation (no matter if it is ordinary or experimental) there is no place for active influence on the subject of research.

Actively creating, reflecting and transforming the researched phenomena, an experimenter can always see them in the process of movement and development, and as a result have more objective data about them from several points of view. During an experiment not only observed qualities of an object, but also unobserved ones are reflected. Experiment allows putting a subject under certain conditions, implement necessary changes and modifications, speed up or slow down the flow of events. Moreover, during an experiment one and the same phenomenon can be reproduced many times.

There is no doubt that ability to reproduce is a general feature of an experimental method. This feature inheres in an experiment, proceeding from different levels of dependence on a research object. That is why this feature cannot be included in the structure of experimental method as its unconditional and thereby essential criterion. During an experiment as a sensual-subject activity, mediation and “instrument character” of human cognition are revealed.

In this respect experiment can be defined as a variety of human practice. As it was emphasized by V. I. Lenin, since human practice is a sort of verification and criterion of cognitive objectiveness, so data received experimentally are the criteria of truth. As a form of subject-practical activity, experimental method performs two functions in scientific cognition simultaneously. On the one hand, it is a method of receiving new knowledge, but on the other, it acts as a method of verifying truthfulness of this knowledge. The experiment itself is of great importance for cognition and transformation of reality, moreover, it performs a very important role in the development of modern science.

So what is the essence of experiment as a method of scientific cognition? Let us start with the most typical definitions of this notion. Experiment (lat. experimentum – an attempt or test) – is a sensual-subject activity in science, which is implemented by theoretical methods. In science the term “experiment” includes a number of interconnected notions: test, aimed observation, reproduction of object under study, organization of special conditions for its existence, verification of foreseeing, etc.

Another definition of the notion of “experiment” can be given as follows: it is a test carried out scientifically, observation of a studied phenomenon under strictly specified conditions that allow controlling its flow and reproducing it each time with repetition of these conditions. This definition especially underlines such functions: creation of certain conditions aimed at reproducing phenomena, and repetition of these conditions. This puts the notions of “experiment” and “scientifically carried out test” in the same line.

Experiment, according to the definition, given by soviet philosopher P. V. Kopnin, comprises necessary features of practical mastering of reality on human’s side. As experiment helps to reproduce in practice those phenomena, which attract human attention. For example, a physicist reproduces in laboratory the phenomenon of electric discharges similar to those observed during a thunderstorm. In their practice humans can reproduce reality phenomena for different purposes – either for producing something or consuming. But an experiment is conducted for phenomenon cognition that is why it can be defined as reproduction in practice of phenomena for their scientific cognition. This definition underlines cognitive function of experimental research in connection with practice. The author wants to stress that it is the reproduction of phenomena in practice. Experiment as a method of research begins when certain conditions are created for the study of the given process in a relatively “pure form” through changes in conditions, or this process’s direction or character. The advantage of experiment is that it helps to determine and study those connections and correlations of an object, which humans need in a pure form.

In some cases experiment is limited only to the procedural aspect, but in other cases sensual-objective side of cognition is put into the foreground. There are some cases when its theoretical function is emphasized. However, in all these cases experiment unites practice and cognition.

Experiment allows conscious dividing the object of research into parts in order to study its separate components and peculiarities. To reasonable extent it also allows to change conditions of subject existence and enables to speed up the flow of certain processes. Moreover, it is not limited by the parameters of time and space. The advantage of experiment is its ability to be repeated, permitting to obtain more reliable data. Thus, in an experiment a researcher

stimulates certain phenomenon instead of waiting for it to reveal itself; also he can change conditions of the situation created for the phenomenon study. By isolating separate fragments of the studied object, experiment allows establishing its logical connections. An experimenter can change not only presence or absence of certain conditions, but their quantitative connections as well. The main task of experiment is to make the peculiarities of inner process available for objective observation.

And now a few words about cognitive functions of experiment. During an experiment a researcher discovers those stable, essential and general connections that are not perceived by our senses. Experiment promotes penetration into observed and unobserved phenomena that is it can establish inner connection of those phenomena.

Experiments which help in discovering previously unknown qualities of an object are called research experiments. For example, purely research experiments are those determining the threshold of sensitivity, the speed of reaction, memory capacity, colour sense, etc. In certain sense research experiment is very similar to qualitative experiment because it is also aimed at revealing unknown qualities and regularities of phenomena.

Experiment in science is one of accumulating sources of new facts, which serve as initial material for theory construction. A fact is objective, reliable knowledge of certain objective phenomena, playing the role of important scientific source. It is a well-known fact that science is based on facts and its aim is to explain the existing ones and foresee the new ones. A fact is a sort of empirical data summary.

Experiment also permits to test and prove correctness of certain judgements. Such experiment is called testing. For example, numerous atomic parts were theorized, and later their existence was proved experimentally. In the same way there were discovered unknown elements on the basis of periodic law, which were foreseen by D. I. Mendeleev. Or, for instance, the experiments conducted by V. V. Davydov and his colleagues, who proved the hypothesis about the dependence of formed generalization type on the contents of material.

But there can be a testing experiment, proving for example an empirical hypothesis of memory capacity dependence on complexity of material; dependence of successful activity on motivation and strength.

Almost all pedagogical experiments that determine effectiveness of pedagogical means look like that.

The famous effects of Z. Piaget, which prompted the theory of mental development, are also worth mentioning here.

Experiment helps to demonstrate certain phenomena for learning purposes. Such type of experiment is named illustrative or demonstrative. Scientific experiment is the basis for educational experiment.

In any science methods of scientific research are characterized by functionality, which means that they are meant for solving a certain task in scientific research. This research means finding scientific factual data; their processing, verification of the received results reliability together with hypothesis verification, etc.

In spite of a great number of works dedicated to highlighting the role of scientific experiment, a lot of questions remain unsolved, particularly the question about experiment structure.

Experiment is a complex phenomenon performing a lot of functions. Its structure is various because it depends upon aims set by a researcher, and functions performed by an experiment. There are different points of view in determining experiment components. Some researchers single out the following main structural units in it: 1) an experimenter and his activity; 2) an object and a subject of experimental research (instruments, tools, settings).

Others consider the following elements to be principal: 1) experimental question putting; 2) project and experiment planning; 3) technical realization in material activity; 4) experiment results interpretation.

Experiment project and planning is based on creation of an idealized sensual-objective picture of a researched situation. It means creating an imaginary experiment, which would be based on theory (if there is one). If an adequate theory does not exist, then the experiment should be based on minimal theoretical basis, imaginary regularities, device theory (that is the ideas of device maximum capacity). In this case it would be impossible to finish the imaginary experiment because it cannot be constructed in detail on theoretical level.

The so-called extrapolation experiment can be singled out as a special type of experiment. It is a function, authorizing the spread of

results, received for one class of objects onto other groups. The basic project of extrapolation experiment is in logically developed theory.

EXPERIMENT DESIGN AND STAGES OF ITS IMPLEMENTATION

We have already examined the notion of the experiment as a scientific cognition method from the most general statements point of view. What is left to do is to fix two main experiment aspects: it belongs both to the spheres of cognition and practice. In accordance with this, we can single out a criterial function and a function of new knowledge obtaining. The criterial function that is verification of knowledge truthfulness by experimenting, is possible because, on the one hand, experiment as scientific method is a reflection of everyday human practice that has certain norms and activity rules. On the other hand, the experiment's cognitive role is based on a regulatory principles system, which determines the method of data collection and interpretation. However, this definition makes it very difficult to draw a strict line between experiment and other methods, for example, observation. Both these methods are equal when dealing with social norms of activity in receiving facts and rules of their explanation. The most significant difference between experiment and observation is that the first represents active methods of cognition. These methods are characterized by changes of cognition subject (which can be obtained in different ways) while observation value is in direct proportion to non-interference degree in phenomenon study. So how is it possible to keep to conditions of the activity of influence on a researched object and at the same time preserve its normative nature? In case of observation the decisive role is played by correct choice of observation units and objective data registration. Experiment is a much more complicated activity, as, besides the above mentioned conditions, there is necessity for strictly regulated and graduated interaction with an object. These features make experiment more complicated, but at the same time more valuable cognitive method in comparison with observation. A correctly planned and performed experiment is characterized by a high level of intersubjectivity, which means that under ideal conditions an experiment can be repeated as many times as it is necessary by any researcher and the results will always be identical. In our case the term intersubjectivity means experiment' ability to reproduce identical conditions for control verification, identical graduated influence on a

researched object as well as similarity and objectivity of measuring all changes caused in the object and research conditions. Possibility to control all conditions including the state of an object itself creates the possibility to repeat and reproduce the experiment. It is especially important for one reason – observation results are always unique to certain extent (as it is impossible to say what exactly influenced that particular behaviour of researched objects). Moreover, in each case a researcher has to deal with many unknown factors, and their independent influence cannot be determined in principle. In this respect experiment is an opposite research objective that is solely aimed at fixing one or several specified conditions influence.

Thus, experiment is one of the most complicated procedural methods characterized by a fixed structure and demanding strict adherence to strictly determined rules.

The main component of experiment is hypothesis. According to its character hypothesis is an assumption, which after experimental verification can become a scientific fact. As there are no certain rules for deriving regularities from separate facts, a researcher has to formulate and verify one or several hypotheses. Connection between theoretical assumptions is established with the help of hypothesis, as well as verification of these assumptions is made with the help of experiment.

Hypothesis is an expression, in which certain theoretical assumptions are formulated with the help of empirical language. The necessity of this is caused by the fact that theoretical knowledge can not be directly verified by research data. Not a theoretical assumption itself has to be experimentally verified, but its empirical results. That is why hypothesis, or a result of theoretical assumption, has to satisfy a whole range of essential, semantic and formal logical demands.

Thus, hypothesis has to be formulated as statement about certain empirical facts or events. It has to be based on the theory of corresponding branch of knowledge so that all available data as to a researched question are taken into consideration. If hypothesis is formulated on the basis of certain problem, it has to comprise some new knowledge to be experimentally verified. Hence, hypothesis is to be formulated so that assumptions admit experimental checkup. Surely any hypothesis is formulated as an implicational expression of a “if-then” type. It should be noted that hypothesis formulation always requires formulation of counterhypothesis and experiment requires

checkup (verification or falsification) of both hypotheses. Depending on the initial idea of an experiment, hypotheses are divided into the following categories: cause – effect (an assumption that certain phenomenon causes the emergence of another one); statistical (an assumption that phenomena are in certain quantitative interrelations); virtual (an assumption of phenomenon existence possibility).

Hypothesis can be brought forward in different ways: 1) on the basis of “purely” literary analysis of a problem; 2) on the basis of constructing a theoretical model of a researched phenomenon; 3) can be borrowed from other researches.

Experimental hypothesis comprises an independent variable (assumption about it), a dependent variable and an additional variable. Hypothesis is an assumption about correlation between independent and dependent variables considering different parameters of an additional variable. But while planning an experiment a researcher can not be completely sure of connection between chosen variables. In this case he has to bring forward a so-called zero or competitive hypothesis. If the sense of direct hypothesis is in assumption of connection existing between certain phenomena, the sense of zero hypothesis is in negation of this connection.

Thus, a correctly planned experiment comprises at least three hypotheses – direct, counter and zero hypotheses. Let us demonstrate correlation between the above mentioned types in the following diagram: direct hypothesis – “A is the cause of B”; zero hypothesis (rival hypothesis) – “A is not the cause of B”; counterhypothesis – “C is the cause of B”. Hence, a direct hypothesis can be accepted only in case zero-hypothesis and counter hypothesis are not proved. If it is impossible to reject one or both of these hypotheses, then the experiment has to be planned differently, (either with different variables, or in other conditions). Moreover, direct hypothesis has to be formulated in another way. Actual connection between variables exists only when neither zero hypothesis, nor counter hypothesis are proved.

But confirmation of direct hypothesis or its refutation is not a sufficient enough fact to reject an initial assumption, or, on the contrary, to accept it as finally proved. One should take into consideration that during an experiment there are a great number of factors to be controlled. This explains why a badly planned or conducted experiment procedure can reject even a true hypothesis. That is why not only

verification of hypothesis, but thorough planning of the whole experiment procedure is of great importance. Possibility of proving hypothetic assumption depends upon a great number of factors. The most important among them is the character of hypothesis and specifics of its verification. The character of hypothesis means that it has to reflect some new knowledge. Search for this knowledge is to be conducted on different levels of abstraction. In this context there are hypotheses, which at the present level of development can not be verified, others are available for verification, but we possess neither material, nor other means for doing it (for example, it is impossible to verify the assumption about positive or negative influence of computer studies at school because of lack of material conditions).

The specificity of hypothesis verification is also a very important element in conducting experiment. A generally correct hypothesis may be verified with the help of wrong methods. In this case it is very important to formulate hypothesis in a logically correct way and support it methodically. While formulating hypothesis one should stick to the rule of its volume – any hypothesis must not be formulated too widely or too narrowly. In case we point at the character of predictable changes, we are supposed to name the conditions, under which these changes are possible. (For example, if we study the influence of a certain pedagogical method on human thinking, then we should point out which peculiarities in what way and to what extent will change after the method is applied.)

The choice of variables is important as well. Any physical, social, mental and other phenomena whose changes can be fixed one way or the other can work as variables in experiment. As we have mentioned above, any experiment necessarily comprises two classes of variables: independent and dependent ones.

An independent variable is a condition (conditions), which an experimenter can freely change into necessary value and fix this variable. It can be acoustic intensity, way of constructing educational material, character of substitute group actions in a social experiment, etc.

A dependent variable is the change in behaviour or other psychological displays that happen to an individual or a group as a result of independent variables influence. An example of this is the speed of reaction to the change of sound intensity or formation of educational

activity structural elements, changes in behaviour as a result of group pressure, etc.

The importance of a thorough selection of independent and dependent variables is conditioned by the necessity to operationalize them. It means that they are to be precisely and objectively estimated and interpreted. Without this the hypothesis confirmation becomes impossible because incorrect choice of variables does not permit an adequate transition between theoretical and empirical levels of knowledge. This transition is the main task of any experiment. Besides, a thorough choice of variables becomes one of the most important conditions of experiment intersubjectiveness. Their control and ability to reproduce allows other people to repeat the study.

In addition to these basic variables, there is often a necessity of considering so-called collateral variables. They are factors, which either cause systematic shift of results, or just reduce their reliability. Reliability means certain stability in the course of time, which means receiving identical data under identical conditions, as well as their reiteration. Independent and dependent variables can be singular in any experiment, while collateral variables are rather numerous. Among them there are: a factor of time, a factor of task, and individual peculiarities. Control over collateral variables is one of the most difficult processes while conducting an experiment. Usually an experiment comprises an additional variable as well. It is aimed at making experimental hypothesis more specific and it only represents and checks a part of it. Among several additional variables only one variable plays the key role and seems to be the most important for hypothesis verification.

As we have mentioned before, there can be only one independent variable. Such variable is called unitary and is usually used during laboratory experiments. But if one more variable is added to the process of controlling a singular variable, then it is called a secondary one. Afterwards this goes by analogy. If there emerges a necessity to precisely determine the influence of an independent variable on a dependent one, then factorial experiment is applied. The second additional variable in factorial experiment that acts as an independent one is called controlling.

We also distinguish qualitative variables that are applied in case their conditions are distinguished qualitatively and can not be

expressed otherwise, and quantitative ones, which conditions can be precisely estimated.

Hence, a detailed experiment planning is of great importance. Planning is crucial in other methods of psychological research as well. As connection between experiment and initial theory is closer than that with observation, the role of planning gains corresponding importance. To certain extent, planning is the process of research construction, as a researcher's task is not only to determine the sequence of work stages and ways of data fixing, but also to formulate an adequate hypothesis together with appropriate verification methods. (These methods include the choice of variables and the way of their registration, etc). In other words, planning means developing certain logics of research, substantiating the shift of theoretical knowledge onto the level of operation parameters.

The following stage is a so-called formal planning. Very often this term is used to denote a process of constructing a mathematical model of experiment. But formal planning is a deeper procedure that substantiates necessary experimental influence (or the number of "irritants"), the order of their implementation, succession of stimulus materials, explanation of criteria selection for control group as well as sampling estimation. Formal planning results in a detailed sequence plan of all "steps" in the experimenter's activity.

Thus, as a conclusion, we can state that experimental research structure comprises several stages. The first stage is determining the aim of a research, which also includes a hypothesis definition – an initial assumption made with the help of independent and dependent variables. Hypothesis formulation has to correspond to the research task, and the choice of experimental influence means is supposed to be adequate to the hypothesis itself. Another essential stage is a detailed experiment planning, which means a shift from hypothesis to certain scheme construction. The third stage is the experiment itself that is a collection of empiric data, the constituent part of which is a question of eliminating or controlling the factors, which create an ideal scheme of the experiment and at the same time complicate the process of hypothesis verification. Having collected empirical data, a researcher is faced with the necessity to conduct a qualitative as well as a quantitative analysis of obtained results. Quantitative data processing is done with the help of various mathematical statistical methods. On this account the

experiment implies certain logic in proving hypothesis, including theoretical substantiation of assumptions correctness and the choice of adequate research procedures. Moreover, it means having a reliable plan and a thorough collection of empirical data supported by correctly recognized statistical procedures, together with conclusions statement.

An essential component of conclusion is distributing experiment results among a wider class of phenomena and personalities, than that under study in the given experiment. For example, the results of research that has been conducted among two classes of ninth-formers can be attributed to all ninth-formers.

An important aspect is also ability to generalize those results, which have been received, and formulation of certain regularity or law. Generally speaking, a thorough and detailed planning of an experiment is aimed at eliminating side factors, which deteriorate the researcher's ability to explore connection between the researched phenomena.

A special stage in conducting the experiment is presentation of the report, though at first it may seem minor and unimportant. But the possibility of the experiment repetition depends upon many things like correctness and clarity of the plan, the process of the experiment, its arguments, and representation form of received relations.

In this respect, a research record is also of great importance. It has to include not only the description of instructions and the experiment flow, but also fixing of all internal and external experiment conditions, even those, which at first may seem unimportant (like illumination, level of noise, appliances description, behaviour of the participants and other physical characteristics – as long as these parameters are assignable). Later it may turn out that those minor, side characteristics have actual influence on the experiment course.

On the whole, the problem of experiment planning is one of the most complicated in the activity of any psychologist or pedagogue. That is why planning has to be included in the course of experimental psychology. If a research task is to compare certain phenomena, like the study of comparative effectiveness of different pedagogical methods, the task itself suggests necessity to choose at least two groups of participants. The given method will be applied to the first group and the other group will remain free from any experimenter's influence (these groups are named experimental and control accordingly). At the best, maximum reliable results could be achieved if this method was at the

same time applied and not applied to the same group. This is a so-called ideal experiment (similar to the ideal gas in physics), but as such gas does not actually exist, the ideal experiment is impossible to conduct.

However, the notion of an ideal experiment plays an important role in planning the research, as the task of any experiment is to approximate it to an ideal, “pure” one. First of all one should determine a deteriorating element and choose according procedures that can eliminate the factors, moving away the actual experiment from its ideal form. Thus, in our case the choice of identical experimental and control groups plays a special role, because individual peculiarities of pupils and teachers can significantly change the effectiveness of pedagogical methods.

That is why there is a task to equalize samplings, at least partially, according to age, level of qualification, psychological climate, etc. The major difficulty in this situation is that differences among pupils can be rather numerous, but equalizing samplings (in this case – classes) according to all parameters is practically impossible. The only solution can be a significant increase in the number of those who take part in an experiment. As a result of it the effect of individual differences will be largely leveled out, resulting in the emergence of a distinctive algebraic peculiarities sum. But the more participants take part in an experiment, the more difficult it will be to process data. That is why it is always important to substantiate certain compromises properly. The choice of experiment time plays a role as well; it is important that in groups, which are compared, the experiment is conducted either in a short time, or simultaneously.

If an experiment structure comprises multiple influences on mastering material, then a researcher faces the task of determining its succession. For example, during psychological-pedagogical research, succession, as well as the material studied at the moment of experiment, plays a significant role. It is difficult to foresee either how an experiment will influence the process of mastering the material, or how the given material will alter the experiment outcome. This proves how important it is to determine the independent variable correctly. An ideal experiment (if it has not been stipulated by the research aim) has to comprise one independent variable to enable a researcher to trace the “behaviour” of a dependent one, which arises as a result of the independent variable activity.

At first sight, the notions of ideal and infinite experiments seem to be absolutely groundless, as it is impossible to conduct them. However, an experiment theoretical preparation stage and its correct planning would be impossible without referring to the notion of ideal experiment, as ideal experiment planning helps to identify those conditions, which complicate or prevent hypothesis proving in a real experiment. But once the interfering factor has been discovered, one may try to eliminate or at least control those unfavourable conditions.

As the real aim of any experiment is to transfer conclusions onto a wider range of objects, an important role is played by the conditions, which provide correct transfer of conclusions. Reliability of the latter, and so the competence of general conclusions, depends upon at least two conditions. The first condition is that the discovered interrelation between an independent and dependent variables is free from other variables influence. The second condition demands constant level of an additional variable used in an experiment to correspond to its level in a wider practice. In other words, in order to be able to generalize the experiment results, it has to be representative.

In general representativeness is understood as the level of an actual experiment proximity to an ideal one. It is achieved by comparing the actual experiment scheme to the ideal one according to some parameters. Representativeness also means the degree of characteristics conformity of those who take part in an experiment and those who are influenced by its conclusions. Representative sampling means that experiment participants' characteristics, say, teenagers', correspond to characteristics of all teenagers. Unfortunately, this condition is neglected in majority of psychological-pedagogical experiments. It results in drawing untruthful conclusions about pupils' abilities. As a rule, in order to achieve high level of representativeness one should adjust samplings by age, sex, academic progress and the level of knowledge. Adjusting samplings by these parameters seems a relatively easy task, while adjusting by psychological characteristics is much more difficult.

One of the most important characteristics in experiment planning is its validity as another measure in obtaining ideal experiment qualities. This term means the level of conclusions' reliability, provided by real experiments in comparison with ideal (as well as its representativeness). But in the first place validity envisages essential,

but not qualitative-formal accordance to ideal experiment. It unites an experimental aim with real possibilities and conditions of its achievement. The main task of validity is hypothesis formulation, which means shifting from theoretic assumption to the level of variables, which can be fixed empirically. In other words, it is a correct and adequate assumption operationalization. As we can see at many stages of designing an experiment, a hypothesis is one of its main compounds. That is why formulation of a hypothesis, which would be correct according to the content and its formal-logical features, remains without algorithmization, but at the same time it is the most crucial stage of research.

Validity also comprises the choice of appropriate means for proving hypothesis. For example, if for comparing the effectiveness of certain pedagogical methods pupils' progress is chosen as a dependent variable, such an experiment cannot be considered valid. Progress cannot adequately reflect qualitative changes in knowledge (the quality of their mastering), because it is a general indicator, which reflects not only pedagogical methods, but all other factors of educational process (for example, interest to certain teacher, excitement about certain topic, new pupils in the class, etc.). In order to evaluate real benefit of a given pedagogical method one should choose other minor but more essential indicators (change in quantity of topic questions, increase in problem questions number, level of student reflection while analyzing material, the speed of "grasping" a new idea, topic, etc).

As an actual experiment approaches an ideal one, three types of validity can be distinguished. Internal (constructive) validity is the accordance of hypothesis and its basic theoretical unities with possibility of research verification, including the level of hypothesis generalization and hypotheses correspondence to each other. For example, the task problematic character or situation integrity can not be evaluated by the number of mistakes or the time necessary for its solution, as mistakes and time are universal indicators used in various experimental schemes.

The first type of validity is closely connected with the next two types of validity – external and operational. External validity reflects the adequacy level of tools that are used for hypothesis verification, their representativeness and reliability. Operational validity means relevance of variables to the hypothesis and ways of their estimation. It includes

necessary technical appliances, methods of mathematical data processing, accordance with instruction rules, etc.

During actual experimental situations a whole range of factors come into action, reducing validity, hence, their elimination or control is one of the ways to boost it. The most common factor which impedes or distorts the course of an experiment is time variation. Season, time of the day somehow tell on the results, but as their influence is almost untraceable, a research should be conducted at the same time span. Besides, there exists certain instability in time, which means that even if an experiment has been conducted by one and the same person and at the same time span, its results will differ anyway. The best control in this case would be to enlarge the number of experiment trials. However, it may turn into a sort of training with signs of fatigue and satiety of the activity. Even more instability is displayed by side factors (side variables) of research because of their great number.

Thus, experimental results have several instability sources, even if we assume that an independent variable is not altered in the course of time (which does not often happen in reality). Surely, the main sources of instability are individual variations of a dependent variable and changeability of attendant conditions.

Another reason for instability is so-called sequence effects (or effects of order). Their influence is in that behaviour (or the results of experimental activity of a studied subject), that is the shift of dependent variable, is not connected with an independent variable shift level, as it was planned, but with the order of stimuli presentation. In other words, the shift of a dependent variable can be caused solely by the order of stimulus material. (For example, if a certain pedagogical method is aimed at boosting memory productivity and a research is conducted in a situation, when complicated material is given before this method is applied, and simplified material is given afterwards, then higher effectiveness of memorization is a result of training at a previous, more complicated experiment stage). Depending on the experiment aim, there can be applied either an accidental division of presentations (according to the so-called law of large numbers), or ordered sequences of ABAB or ABBA type to know as much as possible or to level the previous stimulus influence.

An experimenter's condition is also one of the instability sources. Though, unlike observation or interview, experiment is less dependent

on the one who conducts it, and, thus, is more objective, a special research, however, has shown that two experimenters, conducting absolutely identical work, may receive different results. Certain role is also played by an experimenter's attitude towards hypothesis and other elements of research. Wishing to prove certain hypothesis, he subconsciously and unwillingly makes some micro-changes in his favour.

TYPES OF EXPERIMENTS

According to experiments procedure, they are divided into two large groups: laboratory and natural. Depending on the aim and research hypothesis, a laboratory experiment can be qualitative, factorial, functional, statistical, as well as single-level and multilevel.

Laboratory experiment is the most artificial (it differs the most from observation). Laboratory experiment is a special type of experimental method, which maximally excludes various external factors. It has gained the greatest spread in psychological research, possessing less importance in psychological-pedagogical branch.

The most important advantages of laboratory experiment are: 1) elimination or minimization of random influence factors; 2) purest separation, isolation of experimental factor (the one under study); 3) possibility to control all factors in an experimental situation; 4) guiding the individuals who take part in an experiment. Due to these advantages, laboratory experiment allows to penetrate into the nature of certain phenomena relationship more deeply and differentially.

Depending on the principle of receiving new knowledge, all experiments are divided into external and internal, or direct and indirect. An experiment, during which a researched phenomenon is registered directly, is called internal. Random division of complex psychological act into constituent parts can be an example of an internal psychological experiment. Though because of its inability to significantly influence and control psychic phenomena, an internal experiment did not gain much popularity. It is, in fact, a type of experimental self-observation, its possibilities and field of application being well-known.

Hence, only an external experiment can be named a real experiment, during which psychic phenomena are engendered, are actualized, become more well-defined indirectly by influencing (e.g.

influencing perception organs in the easiest case), or by any other way of stimulation. Psychic phenomenon turns out to be evoked artificially and is fixed not directly, but with the help of chosen by a researcher devices using certain units and standards.

All types of experimental methods used by psychologists can be divided into general, which are applied in all or many psychological disciplines, and special, which are characteristic only of one of them. As we have already mentioned, depending on the character of the task and type of the received results, psychological research can be divided into qualitative, functional, factorial and statistical.

Qualitative experiments are aimed at obtaining data that would demonstrate the presence of certain phenomenon as such, which may be characteristic of one phenomenon or one person (for example, memory capacity). The second type of experiments is an aggregate of the studies revealing dependence of a phenomenon on an experimental factor (for example, the dependence of memory functions on the volume and character of studied material). The aim of functional experiments is to discover functional connections between two or more phenomena, as well as to determine the type, character and value of one phenomenon change depending upon certain change value of the other one. It illustrates dependence between the number of needed reiterations for remembering and certain volume of material or definite complexity, etc. Statistical experiments are aimed at establishing quantitative dependences between phenomena; however they do not reach the level of conclusions about the causes of such connection (memory capacity and text reading speed).

General experiment scheme is composed of the following elements. While conducting a factorial experiment, a researcher either introduces a new condition into his study (an independent variable), or excludes it, fixing appearance and disappearance of researched phenomenon (a dependent variable). In case of functional experiment the procedure demands altering an independent variable to certain extent together with registering the change value of a dependent variable. Thus, in the first case experimenter's attention is focused on determining presence or absence of a psychic phenomenon (to be more precise, the emergence of certain phenomenon under the influence of independent variable), and in the second case – on the size of phenomenon change value (that is the fact of connection or cause is postulated).

We also distinguish group and individual experiments. The term “individual experiment” causes no misunderstanding, while the term “group experiment” must be explained in detail, as it has several meanings. For example, it may be a group experiment only in the form, if in order to save time and appliances, it is conducted with many participants at once, but is aimed at establishing certain regularities concerning each of the participants separately (e.g. memory capacity: the material is presented to the whole group, but data fixing is conducted individually).

The second type of group experiment is the group experiment proper, because it is not only conducted with the whole group, but its conclusions concern the whole unity. It includes the majority of social-psychological experiments, studies of psychological climate in the group, value-orientation unity research, etc. Very often while opting for one of these two experiment forms researchers choose group experiment (meaning the first type of group experiment). This is explained not only by time economy, identical conditions, but also by the fact that these data are more stable in the course of time and less dispersed than experimental data achieved by several individual experiments.

Surely, group experiment is conducted by parallel groups method (the above mentioned control and experimental groups). This method is rather widespread and is aimed at observing two groups of people that are identical in structure and other parameters. The only difference is that an experimental group is under influence, and a control group is not. As we have mentioned before, the selection of groups plays a great role as well. It can be done in various ways: it can be a special formation of sampling with a pairwise choice of individuals, or the group selection in general, based on arithmetical mean factors. The group method is applied as well. It can be rather effective if the experiment structure requires multiple influences. In this case experimental and control groups switch over, reducing the value of individual peculiarities of those under study. This switching levels the groups to some extent.

However, laboratory experiments possess a whole range of drawbacks, which can prove to be rather significant during pedagogical research. Among them there can be named the following: 1) danger of creating excessively artificial and abstract experimental situation evoked by elimination and isolation of external influence factors; 2)

possibility of unjustified dominating influence of experimental factor, which means that real-life influence effect of the experimental factor can be significantly weaker due to other conditions; 3) experimenter's presence and his authority influence on those under study; their desire to cope with the task as successfully as possible; experimenter's prompts and corrections (including unintentional ones); 4) influence of participants on the research results.

Results of numerous laboratory experiments have shown that their participants behaved quite differently in similar natural situations. This narrows the sphere of laboratory experiment use in age and pedagogical psychology. Taking into consideration that any experiment, as well as observation, has its peculiar limitations, a significant breakthrough both theoretically and practically in this sphere was implementation of the so-called natural experiment. It was suggested in 1920 by Russian psychologist O. F. Lazursky.

The essence of this method is that an experiment is conducted in natural conditions instead of a laboratory. As natural experiment was conducted in pedagogics, and was suggested for this sphere, these natural conditions are pupils' objective behaviour during lessons, in playtime, at home, etc. This method represents an intermediate form between experiment and observation, combining both methods' advantages.

Natural experiment is extremely valuable for both psychological and pedagogical studies, as it allows exploring children directly during their educational processes. An experiment either influences the conditions of child's activity, or such activity is evoked artificially. However, the very activity is realized under natural, and what is even more important, actual conditions of life. First of all researchers conduct preliminary analysis that reveals school subjects significance, as well as their influence on the development of various psychic processes. Then these processes are experimentally studied during the lesson. Experiment technique also includes the development of special unified data fixation system, on the basis of their degree of manifestation (strongly, weakly, considerably, medium-scale, little). Various problems that concern schooling are subjects of natural experiment study.

Natural experiment's major advantage is that it combines positive qualities of both experiment and observation. The main qualities are ability to repeat the experiment, altering its conditions, to verify the

results and conduct studies in natural conditions under more objective, open-minded facts registration. This helps to eliminate drawbacks of experiment's artificiality that is researcher's dependence on having a chance to notice certain phenomenon.

It is especially important for psychological-pedagogical research, as it is rather difficult to study a child under laboratory conditions. Among difficulties, which arise while conducting natural experiment, we should name difficulty in separating pure phenomenon, impossibility of systematic exclusion of random factors. Moreover, selecting contrasting natural conditions is also a complicated task.

According to their character and aims, we can distinguish two types of natural experiment: ascertaining and forming. Ascertaining experiment is aimed at fixing some mental fact (for example, individual peculiarities in the flow of certain psychic process, or any of the child's personal features, etc.). In other words, mostly it has a diagnostic character and is similar to psycho-diagnostic methods. The difference between experiment and diagnostic methods is that the latter are presented in a standardized form and are ready to use, so the researcher's task is only to adapt them in accordance with the research idea, while experiment content is constructed specially for the research purpose and can be brand new and unfixed in any diagnostic methods. Ascertaining experiment has not yet gained the status of an independent full-fledged research method of mental development, as, it does not allow of embracing psyche in its development; it only ascertains the presence of certain mental new formations, saying nothing about the very process of formation.

The most adequate method of studying mental development is the forming experiment, which is aimed at altering and reforming in the chosen direction the present level of child psyche functioning. If forming of investigated phenomenon takes place in the course of study, this experiment is called educational, but if it is based on upbringing aims and a researcher develops pupils' personal qualities, this experiment is called upbringing.

Separate elements of forming experiment (as its constituents) can be ascertaining experiment together with various psychodiagnostic methods (tests, questionnaires, checklists, etc.), as in order to research certain quality in its dynamics, it has to be estimated in different moments of time (in particular, before and after its formation). It is

reflected in the scheme of natural experiment. The first stage of a research, according to this scheme, is personality psychic qualities estimation by three levels (lower, middle, upper). Then pedagogical influence takes place in order to boost the level of certain qualities development, succeeded by repeated estimation of the formed qualities. Using the results of the two estimations, conclusions are formed concerning the effectiveness of conducting influences as pedagogical methods, leading to positive results.

In such a traditional form the forming experiment was used by many soviet psychologists for studying mental processes (perception, attention, memory, thinking, etc.). Psychological regularities of these processes were established as a result of numerous researches. But it is necessary to mention that these researches were of analytical character, oriented at studying separate mental processes.

Experiment is one of the basic psychology methods. Its peculiarity is in the fact that researcher himself creates the conditions, under which an investigated phenomenon arises indispensably and routinely. The researcher has an opportunity to define factors clearly, which acted at the very beginning and during an investigated phenomenon, to reveal its causes, and also when it is necessary to repeat the experiment with a view of collecting some additional information for the obtained results substantiation.

One should distinguish the *laboratory* and *natural* experiments. The first one is made in the special psychological laboratories by means of suitable apparatus, and another one is carried out under the usual activity conditions for an experimental person (in the classroom or while working). The natural experiment, as well as the laboratory one, is set according to the certain program, but in such a way, that a pupil does not know that he or she is being investigated, and he or she does tasks quietly, in one's usual tempo, with the peculiarities and attitude to the teaching, labour, sport and other errands typical of this pupil.

Reformatinal (teaching and educational) experiment is a variety of natural experiment.

So, the experimental approach in the study of personality can be provided by such methods as observational learning, conversation, interview, questionnaire research, if the subject of research is investigated by various methods and under different conditions, as it is required by the experiment.

The principle of interaction means for us that the contradiction "normativity – creativity" can be really resolved only in free interaction. We are talking about the creative uniqueness of an individual, which permeates his entire life path. The very beginning of a new person is nothing more than the result of the creative act of objectifying one's need by two loving beings. In itself, this personality is the result and product of creativity. And the need embodied in it has a huge creative potential, which is manifested in uniqueness, heterogeneity, self-awareness, self-sufficiency in general. The true mystery and enigmatic uniqueness of human consciousness lies in its ability to model and self-model. Consciousness models itself, appropriating the ability, and models the future existence of a person. Creativity is a deep, primordial and absolutely natural feature of the individual – it is the highest form of activity. Activity that creates and leaves a mark is embodied. On the other hand, creativity means the desire to express one's inner world.

The principle of uncertainty and indeterminism, as an opposition to predictability, presupposes the setting before the individual of tasks that initially carry a tendency to error. Mistakes, their awareness, and meaning have not, to our knowledge, been studied in such a context. However, they (and it is they) can, at a certain stage, act as both indicators and factors of the creative process. Creative tasks should be focused on the development of the ability to identify and pose problems; the ability to generate a large number of ideas (without fear of condemnation); flexibility – production of various ideas; origin flexibility – the ability to respond to stimuli in a non-standard way; the ability to improve the object by adding details; ability to solve problems.

The principle of therapeutic action is connected with our conviction that the process of creativity is a necessary component of the psychological life of every person (child) and the creation of an appropriate creative environment, thereby, will have a positive effect on its participants. We agree with R. Sternberg's opinion that the development of creativity is related to the ability to take reasonable risks, it involves the willingness to overcome obstacles, internal motivation, tolerance for uncertainty, and the willingness to oppose the opinions of others. It is impossible to show creativity if there is no creative environment [187]. Creativity, realization of creative potential contribute to a sense of harmony, psychological well-being of the individual.

Organizationally, the genetic-creative method is a special creation in a group/school class of a situation that acquires the significance of an event. In this way, the creative potential of the participants of the educational process is actualized, there is an experience of satisfaction and joy from participating in a collective event. We believe that the implementation of the described method will contribute to the creative development and psychological health of the participants of the educational process.

2.6. Additional Methods: Test, Questionnaire, Discussion, Activity Products Analysis, Generalization of Independent Descriptions, Self-evaluation

Tests are used as additional method in psychological research.

Test is a trial, examination, one of the methods of psychological development level diagnosis of person's psychic processes and qualities. Psychological tests constitute a certain task system, reliability of which is checked in certain social, professional, age groups, and are estimated and standardized by means of special mathematical (correlational, factorial etc.) analysis.

There are various types of tests. They are the following: tests for mental abilities study, the level of personality mental development and special progress tests. With the help of tests one can investigate the level of development of separate psychic processes, levels of knowledge and personality general mental development. Tests as standardized methods, give us an opportunity to compare levels of development and success of experimental person with the requirements of school programs and professionograms of the different specialities.

In order to avoid some mistakes while using tests as method of psychological research their contents must accord with the investigated phenomenon (intellectual activity, attention, memory, imagination etc) and not require some special knowledge for their execution. The test contents and instructions to its fulfillment must be absolutely clear and intelligible. The results of test research must not be valued as absolute indexes of the personality mental abilities. They are only the development level indexes of the certain qualities for the research

moment under the concrete personality life conditions, teaching and education.

FUNDAMENTAL DEMANDS AND CONDITIONS FOR USING TESTS AS RESEARCH MEANS

Demands to methodologies: 1) methodology has to correspond to the aim and the subject of research; 2) a procedure of its implementation has to be specified in the form of unambiguous set of actions with their subsequent quantum disengagement; 3) a test has to be checked for representativeness, reliability, objectivity and validity; 4) an instruction on conducting a research must be unambiguous.

Demands to an experimenter: 1) a researcher has to be acquainted with general theoretic principles of psychodiagnostics; 2) a selection of methodologies has to provide maximum effectiveness of the diagnostics; 3) an experimenter is supposed to act within the limits of standard rules of using diagnostical methodology; 4) a researcher must stick to ethic principles.

QUESTIONARY METHODS

In psychology, particularly in pedagogical practice, the questionnaire method is widely used, when it is necessary to determine the level of comprehension by experimental of some true-to-life situations, notions used in teaching and practical activity (natural, technical, social), or when it is necessary to get some information about person's interests, views, feelings, activity motives and behaviour. The most widespread questionnaire varieties, as the method of psychological research, are conversation, interview, research questionnaire and sociometric investigation.

In psychological-pedagogical research there is often a necessity to get information about such phenomena and processes, which are unattainable for direct observations. These processes are not fully reflected in the activity products analysis method. For example, the information about motives, interests, inclinations, plans for life, structures of relations in educational and working communities, etc.

The source of such scientifically important information is people who directly take part in life processes, their own attitude to mood, behaviour and surrounding reality.

We can get such information with the help of questionnaires. This method is based on number of questions, put to the respondent, whose

answers provide the necessary research information. In any of its forms questioning is one of the most complicated variants of social-psychological communication. The bond between its main participants – researcher and respondent is ensured with the help of various intermediate links. Questioning has the following constituents.

Firstly, it is a questionnaire or an interview plan, a list of questions, with the help of which the problem is described empirically, “transferred into” the sphere of everyday experience and conscience of respondents.

Secondly, it is an interviewer who directly provides the process of filling in questionnaires by a respondent. If personal communication between an interviewer and a respondent is stipulated by the interview, the latter personally fills in the questionnaire after being instructed by the interviewer.

Thirdly, it is the situation of questioning, its framework consisting of definite situations that a respondent has experienced before the moment of an interview (his emotional states, norms and traditions, ideas and attitudes to questioning).

Thus, we can say that questioning is a method of attaining socio-psychological information, which is based on oral or written asking the group of people under study the questions that reflect the problem at a certain empirical level.

Besides, whichever type of questioning you use, one of its instruments is questionnaire. Taking into consideration that with its help the researcher obtains any information by asking questions, they ought to be formulated for all respondents to understand them the way the designer of the questionnaire does. But it should be stated that correct formulation of questions is a much more difficult task than it seems to be at first sight.

Real specifically psychological scientific study is based on the information that meets the following three requirements. It has to be reliable, trustworthy, and moreover, it should be obtained with the help of methodology that is valid for solving the given task. Any information can be trustworthy only if it adequately reflects reality. A questionnaire is a structurally organized set of questions, logically connected with the central task of the study. The process of questionnaire composition and transforming basic hypotheses in terms of questions is a rather difficult operation that requires careful, laborious work, good knowledge of

corresponding question types and ability to formulate them exactly in certain order.

Three types of questionnaires are distinguished in the practice of researching: 1) by mail; 2) distributed through mass media; 3) handed-out.

The essence of mail questioning is that a questionnaire is sent around and then is returned to a researcher by post.

Questioning distributed through mass media is conducted by publishing questions in newspapers and those, who volunteer to answer them, fill in the questionnaire and send it to the editorial office address.

The most widespread way of distributing questionnaires is the hand-out questioning. In this case a questionnaire is handed to a respondent personally, he fills it in and then returns it. Questionnaires can be filled in either immediately, or at home on condition of returning them in good time. Immediate questioning is the most effective way of distributing questionnaires, preferred to other ways for two main reasons – it guarantees complete return of questionnaires, as well as enables a researcher to control the process of their filling in.

All questions are distinguished in accordance with three criteria: the content, the form and the function they perform.

Depending on their content, questions can be divided into two large groups for the purpose of convenience: a) questions about facts, actions in the past and in the present, as well as about products of life activity; b) questions about motives, estimations and thoughts of individuals. With the help of questions belonging to the first group, a researcher is able to attain objective data about a respondent, his/her knowledge and memories. Questions belonging to the second group enable a researcher to get to know respondent's attitude to certain things or objects, along with his intentions and motives.

First of all the first group includes the so-called demographical questions, determining the status of a respondent: his age, sex, level of education, marital status, profession, work experience, etc. As usual, these questions are arranged in one section, which is called "the demographical part of questionnaire" or "the passport section". It is usually put in the end of a questionnaire.

If a respondent has doubts as to anonymity of the questionnaire or he is apprehensive of his frank answers harming him somehow, then he may give untruthful information about himself. He also may not answer

those very questions from “the passport section”, which seem to him unreliable in terms of anonymity. In the first case a respondent knowing well which type of behaviour is encouraged and which is denied by society, is likely to hide the negative facts of his/her life and exaggerate or ascribe some positive actions, which he/she hasn't done. In opposite case, respondent can give inadequate information because of memory flaws or difficulties with mental reproduction of past events.

In comparison with questions of the first group they are more difficult to answer, so the answers are always less reliable and frank. In this case the researcher's primary task is to obtain necessary information using various technical means and methods.

Instead of putting “why” questions, provoking only respondent's unwillingness to answer and negative reaction, a researcher is supposed to make up a series of detailed questions. Taken together, the answers to them will let him/her understand the reason of one or another thought appearing in the respondent's mind.

Projective questions are also of great importance. In this case respondents are given a number of situations, which they might come across in their lives. They are supposed to indicate their own variant of behaviour or thought in certain situation. This type of questions performs the function of deeper and more precise penetration into respondent's motivation and determines his/her intentions and purposes. As a rule, they are formulated in the form of conditional sentences: “Imagine, that...”

According to their form, these questions can be divided into open and closed; direct and indirect. Questions are called open or free if they can be answered in any form without restrictions and a respondent can express everything he wishes. The question formulation is called closed if there are options for answers and a respondent has to select from one of them. The list of options can have qualitative character (multiple-choice questions). For example: What attracts you in your work?

- a) the work is various and interesting;
- b) the work requires quick wits and makes me deepen my knowledge;
- c) it is well-paid; good work organization.

Questions can have quantitative character (with an assessment that helps to estimate intensiveness of purposes).

Are you satisfied with your job?

- a) very satisfied;
- b) satisfied;
- c) not quite satisfied;
- d) very unsatisfied.

As to the drawbacks, firstly, it is necessary to state that with open questions probability of subjective, loose interpretation from respondent's side is too high and it finally causes impossibility to compare final data. Secondly, analysis of answers to open questions is an extremely difficult task.

The advantage of closed questions is that they are strictly and unambiguously interpreted, easily standardized and do not require special expenses for their processing and analysis.

While designing closed questions one should try to cover all possible answer variants, to mix all alternatives and to make identical parameters for positive and negative sides of quantitative questions.

While listing quantitative alternatives it is important to avoid deviations to either side.

The question that is aimed at receiving immediate information from a respondent is called direct. It is usually formulated in personal form: "Do you know that...", "What is your opinion about...". If a researcher is not completely sure that a respondent will give a frank answer to a direct question, then he should put an indirect question. It is aimed at hiding the essence of necessary information, for a respondent to consider the question collateral and unimportant. The answer to such a question needs obligatory interpretation.

According to the function they perform, questions are divided into filter and control. Filter questions are used for two above mentioned groups: according to the content, that is for questions about facts and actions; and questions about thoughts, motives and respondent's evaluations. Filter questions are aimed at separating one group of respondents (who are supposed to answer the given questions) from the other group (who are not supposed to answer these questions).

Sometimes while answering the second group of questions respondents may give evaluations, express thoughts about unknown things. The task of filter questions is to eliminate incompetent respondents and check how well they are informed. If it turns out that they have no knowledge about the subject of study, naturally enough, their thoughts will not be taken into consideration.

The function of control questions is to verify truthfulness of respondent's answers to main questions of a questionnaire. With their help one can evaluate the quality of information that is being received. Very often control questions constitute a significant part of all questions that is why they are formed in a special scale of "untruthfulness". When the answers "yes" or "no" exceed their stipulated number in this scale, the results are taken into consideration only on certain conditions, or they are rejected as being untruthful.

Basic Control questions are placed in the questionnaire in the order, preventing respondent from tracing direct connection between them.

The structure of a questionnaire is characterized by the following succession of its divisions: 1) Introductory part; 2) Basic part; 3) Demographical part ("passport section").

The Introductory part of a questionnaire is a sort of appeal to a respondent, where it is stated what organization conducts the study. The aim of investigation is explained as well as the way in which its results will be used. Moreover, the importance of participation of this very respondent is emphasized, and anonymity of answers is guaranteed. Clear exposition of questionnaire rules is stated together with the way of its returning.

The aim of the Introductory part is to win a respondent's favour, get him interested by the topic of questioning and make him want to take part in it.

The Basic part includes questions per se. At the beginning there are questions aimed at getting a respondent interested, motivate him to cooperate and assist his involvement in the process of work at the questionnaire. Then the most difficult questions are put directed at finding out purposes, evaluations, etc. Finally, in the end of this part there are the most intimate and control questions meant for deepening and defining more precisely the information that has been obtained from previous questions.

In the Demographical part of a questionnaire ("passport section") the questions concerning the objective status of a person – sex, age, marital status, profession, level of education, etc are placed.

Here are some rules of designing a questionnaire:

1. It must contain the most important questions, the answers to which will provide information necessary for solving the tasks of a study and which is impossible to obtain otherwise.

2. Formulation of questions from the conceptual and semantical point of view has to be clear for the respondent and corresponding to his knowledge and level of education.

3. Questions should be formulated so that respondents can answer them in general.

4. Questions must provoke respondent's positive reaction and willingness to give a full and frank answer.

5. The organization and succession of questions must assist in receiving the most necessary information for the study.

A complex questionnaire has to be tested and the researcher should first of all ask himself the following:

1. Have all language rules been followed, or maybe, the language of questions is too complicated or too primitive for some respondents?

2. Are all questions and their answer variants clear enough?

3. Are not questions formulated too abstractly or too specifically?

4. Are all units of measure from the questionnaire understandable for a respondent?

5. Will respondents be able to answer questions about past actions, or maybe, it is worth making sure they will?

6. Is there a possibility that respondents will answer stereotypically?

7. Are not answer variants too numerous and will the respondents be able to cope with many variants? If there are too many of them, may be it is worth breaking them into modules?

8. Will questions cause mistrust or negative emotions?

9. Do these questions touch respondent's self-esteem or intimate sides of his/her life?

10. Is everything correct from the questionnaire lay-out point of view: notionally important parts are not broken; questions and instructions are well outlined by the font; monotonous elements are avoided in questionnaire design.

Having checked out the questionnaire himself, a researcher has to approve it and after eliminating defects he is supposed to distribute it among respondents.

There are also some demands concerning convenient "layout" of a questionnaire for respondents to fill it in. Moreover, this layout should facilitate the encoder's work in case of computerized processing of data.

While analyzing the results of a trial questioning it is important to determine quickly the external signs of mistakes made while designing the questionnaire.

1. The absence of order in answers can be a clear indicator of a wrong choice of terminology. In this case it is obvious that respondents' cultural background together with their level of education and professional orientation have not been taken into consideration.

2. Questions like "all or nothing" are the example of an inapt formulation, which automatically causes stereotypical answers.

3. A large number of answers like "I do not know" or "I have not understood" indicate the unclear formulation of questions or their bad selection.

4. A large amount of inappropriate commentaries and remarks points to a low-quality formulation of questions or insufficient list of alternatives in answers.

5. A high proportion of questions without answers shows that the introductory part of a questionnaire has been composed not thoroughly enough, it gives indistinct rules of filling it in, does not guarantee anonymity or does not fully explain the aim of the study.

6. Significant divergence in answers is observed as a result of change in question order and variants of answers.

A questionnaire is considered reliable when a questioning repeated in some time holding to terms of the previous one, provides similar results.

A questionnaire can be considered well-grounded or valid when it estimates precisely what it should estimate and a researcher with its help receives the data he has been hoping for. The problem of questionnaire validity is reduced to a respondent understanding the essence of a question the way it was meant by a researcher and giving the answer proceeding from it. There exist three main types of questionnaires that are used in age and pedagogical psychology.

Firstly, there are questionnaires consisting of open questions which are aimed at revealing realized qualities of respondents. *Secondly*, there are questionnaires of a selective type, where a few answers for each question are suggested. Respondent's task in this case is to select the most suitable one. *Thirdly*, there are scale questionnaires, and a respondent is not only supposed to select an answer that suits him, but he also has to evaluate the correctness of each variant. There is no

considerable difference between these types of questionnaires. Questionnaires containing open questions consist of material that requires thorough analysis of answers, which in its turn makes the quantitative processing of results more difficult.

A scale questionnaire is the most formalized type of questionnaires, which permits to conduct a more precise analysis of questioning results.

An example of a scale questionnaire can be the questioning entitled "Teacher in the eyes of his pupils", which has been conducted in a number of Kyivan schools. The questions in it were organized as follows: there were listed certain personal qualities of a teacher together with some positive qualities that he/she should possess. The respondent's task was to determine the place and class of each of these qualities depending on level of their importance for a teacher. Results have shown that among students the highest level of value was assigned to such positive qualities and features: 1) ability to teach understandably and in an interesting way; 2) teacher's level of fairness and objectivity; 3) profound knowledge of the subject; 4) organizer's skills; 5) skills for maintaining discipline in class; 6) ability to understand pupils.

These qualities and features of a teacher's personality were named both by high school pupils and junior pupils, although the sequence of evaluations differed depending on their age.

Types of questionnaire methods include method of polarized profiles; evaluation (rating); double-comparison method; sociometrics; reference metrics.

Some researchers single out these methods apart from questionnaire method. But a lot of common aspects (questions, ways of filling in questionnaires, etc.) allow us to include them in the group of questionnaire methods, though there is no doubt that each method has its own specifics.

The conversation is a purposeful talk with an experimental person with the aim of clearing up of conception or understanding of nature and society phenomena, scientific questions, intercorrelations, causes and consequences, persuasions, ideals and ideological orientation. The questions are to be clear and intelligible aimed at the psychological phenomena. During the conversation it is necessary to get not only the certain answer, but the explanation, motivations, ie the answers to the questions have to be not only the phrases like «what is this», but «why?», «how?» etc. as well.

One of the conversation variants is **the interview**, which is used in psychological and sociological researches. During the interview thoughts, views, facts from the respondent's life, ie the experimental person, his attitude to the political events, situations, social phenomena etc. are revealed.

The interview can be of two types: *unstandardized* and *standardized*. During the unstandardized interview questions to the respondent are not formulated up to the end and they may be changed in the research process. But during the standardized interview the questions form a kind of a certain system and are formulated clearly.

The **questionnaire inquiring** is one of the methods of the psychological questionnaire. By means of questionnaire one can investigate professional, sporting, art, literary, interests and likes, motives, attitude towards the choice of actions, acts, labour varieties, some experiences, and their evaluation. The experimental people answer in written form. Besides the questions are formulated in such a way, that answers to them will be descriptive or alternative: eg «yes», «no», «don't know», «difficult to answer», or it is necessary to formulate questions with some variants of the answers (so-called "multiple choice questions" prepared beforehand) between which the experimental person has to underline one answer, which corresponds to one's personal views and interests. In the questionnaire the questions which are put may be of certified, and motivated character, as well as in the conversation and interview. The questionnaire may be nominal, when an experimental person mentions one's surname and name, gives some information about oneself and also the questionnaire may be an anonymous, the usage which aimed at getting more truthful answers.

With the help of the questionnaire research one can get a big portion of material, which gives the grounds to find the obtained answers to be sufficiently probable. The disadvantages of this method are subjectivism, answers chance, complication of verification of their correctness and sincerity.

The sociometric research, or selective method, is used for determination of the relations in collective, evaluative attitude of the experimental persons towards others, giving preference to one members of the collective or group concerning the leader or friend choice. The basis for evaluative attitude and choice is the sense of sympathy and antipathy to the others. In psychology the sociometric

method methodology is used with the purpose of studying of group differentiation, when group members are offered to answer the question: “Whom would you like to make friends with?”, “Who would you like to choose a group leader? ». The choice may be mutually positive, mutually negative or either positive (or negative) on the part of the group member and negative (positive) on the part of that person, whom he could choose.

The amount of the positive and negative choices is fixed on the matrix and then their percentage is calculated. With the help of the sociometric research a real personality role in the collective can be found according to one’s business qualities, popularity and interpersonal relations.

The method of activity products analysis is based on person’s work results which indicate one’s knowledge, skills and habits, abilities, attentiveness and observation, character traits. Thus, activity results give us an opportunity to be aware of person’s various psychic qualities and qualities, and also the level of their development.

Pupils’ activity results are their written works, hand-made goods, drawings, models, photographs etc. Comparing the various pieces of work, performed by pupil in different time, at the different teaching stages, one can define the very level of one’s development, perfection of skills and habits, accuracy, quick-wit, persistence etc. These very aspects should become the subject of activity results analysis, but not, for example, the cost of the created product.

Pupils’ activity results can also be analysed in the process of their creation. While observing this process, one can reveal not only its quality, but the dynamics, tempo of execution, abilities in acts and one’s attitude towards the task. The observation leading data help to learn mental, emotional, volitional, personality characteristics qualities more deeply and comprehensively.

The method of independent descriptions generalization is unification and generalization of the data of many observational learnings, carried out independently at different time, under different conditions and in different activity types.

The obtained independent descriptions namely mental data of an experimental personality, its moral discipline, education, interest’s orientation and abilities, cultural level, development rate of other qualities are generalized into a particular system from a certain point of view.

Using this method a teacher must have his/her own opinion about the pupil. The other teachers' data about pupils' success, their discipline, inclinations and abilities, activity should be used not mechanically, but seriously by checking out their probability. Such descriptions make comprehensive personality study, formation of objective descriptions about individual, determination of the ways of one's further development in the process of educational and upbringing activity possible.

By means of the **method of self-evaluation** one can determine the person's ability level to evaluate oneself in general or one's particular moral and psychological qualities – psychic processes, states and qualities, for example attentiveness, observation, retentive memory, ingenuity, truthfulness, honesty, adherence to principles, discipline, accuracy, level of culture, politeness, diligence, courage, success in studying, work etc.

Self-evaluation data are the important indexes of the personality consciousness development level, one's ability to critical attitude towards one's acts and the very comprehension of individual's role in the collective. There are several self-evaluation methods. In some cases an experimental person evaluates oneself or one's own qualities by the three or five-point scale, and in other cases this person is offered to compare oneself with each member of the collective, group, class (it is so-called pair evaluation) and to evaluate himself, choosing one of the answer variants:

- 1) «I am better than he»;
- 2) «I am the same as he»;
- 3) «I am worse than he».

By means of the self-evaluation method one can determine such person's typical peculiarities, as solicitous level, modesty or boastfulness, comprehension level of one's individual peculiarities. Evidence proved that one people evaluate themselves objectively, and others overestimate or underestimate themselves.

Data about adult's or pupil's self-esteem development level can be used in upbringing process.

The important thoughts about the methods of the psychological personality study were expressed by K. Ushynskiy. He writes that any human being who can understand his or her nature, is already so-called "completed psychology course". It is difficult to find a book without any

psychological fact or any specific point of view on psychical phenomenon or “inner world”. The whole history is about human soul history facts only; and not about the person’s body history; each biography, each narrative, each novel or poem cover a great number of psychological facts and the results of observational learning. There is no even the worst pedagogical course, where there is not the whole system of psychological thoughts. And the very pedagogical practice is the substantial base for psychological observational learning!

2.7. THE TASKS AND FUNCTIONS OF PSYCHODIAGNOSTICAL RESEARCH

The basic task of psychodiagnostics is to create such diagnostical methods, which would allow to estimate thoroughly the level of a child’s mental development. The majority of diagnostic methods are constructed on the principle of educational experiment, which is aimed not only at recording the present level, but also at forecasting a child’s development and his/her ability to learn. While designing methods, researchers usually take into consideration possibility to use them for the purpose of comparing different curricula.

In our opinion, there are equally important methods taking into consideration the “contribution to personality development”, stipulated by new knowledge acquisition. Without designing reliable methods of diagnostics it is impossible to solve the tasks of developing independence, initiative, self-regulation and other features necessary for carrying out any activity. Hence while creating specific methods, psychodiagnostics is based not only on the tasks of ascertaining, but also purposeful development of students. In the process of learning it is also aimed at forming personality features necessary for future professional activity.

It is impossible to reveal aptitude for arts without broad diagnostic research. The sooner this aptitude is evaluated, the better it will be for its optimal development. Psychodiagnostics can also assist in solving many other problems. That is why it is necessary to acquire knowledge about the level of children mental development at every age. And this is namely the subject of school psychodiagnostics.

Today the role of school psychodiagnostics gains more weight and demands improvement of diagnostic methods. It concerns both boosting reliability and objectivity of data received in the result of using

certain methods, as well as creation of new methods permitting to learn a larger number of mental phenomena. Different features can form the basis of psychodiagnostical methods classification. Methods of diagnostics can be distinguished according to the following criteria: whether there is a correct answer for the given tasks, or it just does not exist. The first type includes such methods as IQ and aptitude tests, personality test (the test of Raven), procedure of determining multi-dependence (Witkin), rigidity test (Latches). The other group contains the tasks, which are characterized only by answer frequency, regardless of their correctness.

According to another feature we can distinguish real and unreal methods that possess a verbal (linguistic, oral) form or any other form (written, using technical means, etc.)

Characteristics of the main methodical principle underlying the methods may belong to the features, assisting in conducting classification. We can distinguish objective tests, standardized projective tests (checklists, semantic differential test, role repertoire schemes), dialogic methods (talk, interview).

The so-called tests – short standardized trials of any mental qualities – can be distinguished as a separate group of methods. The results of these trials allow estimating personality's psychological characteristics. A test can be defined as an experiment in the form of some task, which stimulates corresponding form of activity. A completed test can go through qualitative and quantitative processing and display a certain level of function development. The tasks comprising tests usually have a short standardized form.

Thus, the aim of using diagnostic methods is to fix and describe psychological differences between separate individuals and groups of people according to one, or, more frequently, according to several features.

Among general problems of psychodiagnosics there are the problems of methodologies' validity and reliability. The easiest way of their solving is mathematical apparatus improvement, sample formation accuracy, and interpreting the received data. However, this may be not enough. A number of reasons reduce the success of test results. For example, one of them is conditions of testing: a respondent has to feel independent and comfortable, because frustration can significantly influence test results. But the main factor, causing

differences in results is that every test demands certain level of knowledge, without which it is impossible to perform any test successfully. We should pay attention to the fact that there are significant limitations and even impossibility to use the test created specifically for certain culture and environment. For example, very often some operations used in the test (generalization, abstraction, classification) are valued differently in various subcultures. It happens because they are connected differently with practical activity of individuals and representatives of some social groups. Besides, any word that is used in a test, is located in different systems of semantic connections with other lexemes. Due to this it is very difficult to keep to the condition of equal understanding of words, if not to mention that some tasks even lack abstract notions which are often used in tests. Thus, the use of foreign methodologies in psychodiagnostics has definite limitations and must be combined with thorough theoretical analysis of the studied subject as well as methodological statements underlying the methods.

In psychodiagnostics two kinds of research are singled out: result-based and method-based. For psychometrics result-based principle of study is a traditional way of diagnostics. It means determination of development level according to the quantity of points scored in a test. As a rule, result-based methods (the majority of intellectual tests), are not able to grab the process dynamics, having led to a certain result. A serious drawback of these methods is their formalism – a final score gives no information either about the way of achieving the result, or about the reasons of high or low scores. The opposite principle is so-called clinical approach, with the help of which a process of test results achievement is recorded, thus making it more considerable. However, the clinical approach possesses definite complexity in standardization of testing procedure and a score. First of all, it is caused by the fact that the process of task fulfillment is analysed in different aspects, admitting wide interpretation possibilities, thus creating a considerable disparity of diagnostic conclusions.

Method-based diagnostics is more productive and allows to get over formalism of a result-based score. This principle allows to determine “a zone of the nearest development” by regulating the extent of hints a respondent needs to achieve a desirable result and also it explains why one can leave out some mistakes (for example, when a

correct way of solving is accompanied by calculation mistakes). But in this case diagnostics faces certain difficulties, as various conditions influence the results of testing, and procedures may have several meanings. Hereupon testing results – as under traditional approach – can be formal to a certain extent. It can only be inferred that a respondent has performed the task in a certain way. Clearly, this “formalism” is of a higher order than in a “result-based” assessment, as a procedure here is more essential than the result itself. However, realization of such an approach raises the method diagnostic value, at the same time disregarding the objective sense of activity. Besides, result-based diagnostics has considerable advantages, as the simplest evaluation criteria are used here, thus final results are more unambiguous.

Logical realization of Marxist psychology of the consciousness and activities, unity is considered to be productive concerning psychodiagnostics methods design. Psychodiagnostic conclusions and results gain importance only in case of their explanation in terms of subject’s objective activity. Psychodiagnostics, oriented to the activity principle, proceeds from activity analysis and begins with the analysis of its subjective structures, and only then reveals the psychological structure of activity together with mechanisms of its regulation.

Recently, the so-called categorial approach has gained a greater value in psychodiagnostics. It is primarily based on genetic-modelling method of investigation. The theoretical sense of this genetic-modelling method is in the statement that the whole mental development is a result of human appropriation of socially established activity patterns. This approach enables to exceed the limits of personality individual experience, to model theoretically the history of mental qualities as activity form establishment and to organize the process of their formation. In its turn it demands:

- a) previous identifications of a subject’s real activity, within the limits of which a corresponding diagnosis is held;
- b) conducting a theoretical analysis of this activity;
- c) building its theoretical model;
- d) determining a definite form of diagnostic situation.

As the above mentioned short analysis shows, each of the described approaches has advantages as well as drawbacks to be taken into consideration while making the research.

Before characterizing certain tests methodics, one should briefly dwell on very important moments, connected with tests design, a choice of subject contingent, and also the process of diagnostic research. Let us examine the main demands, which are to be adhered to while conducting a psychodiagnostic research.

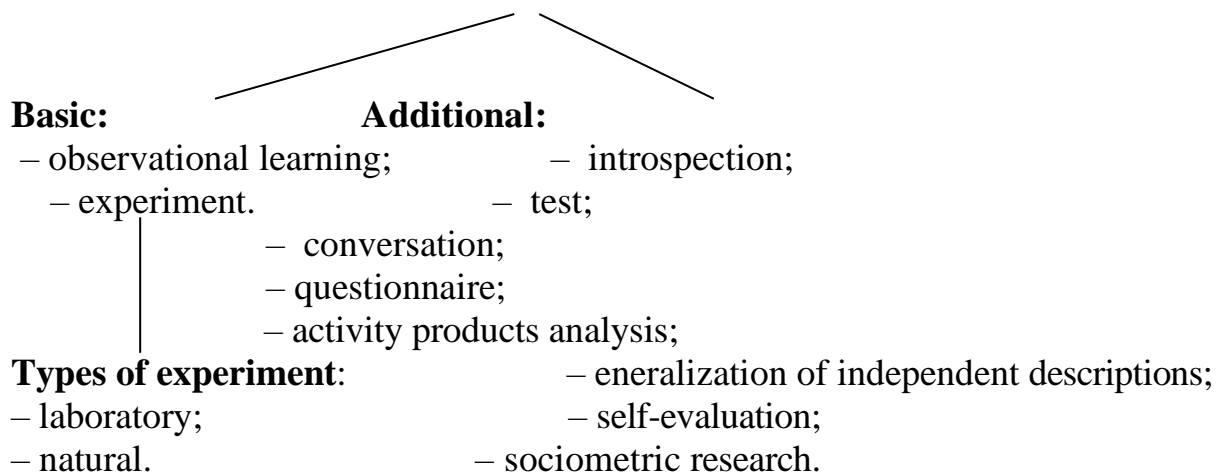
Theme Key Notions

↪ **Method, principle of objectivity, introspection method, observational learning method, method of experiment, conversation method, tests method, method of sociometrics, method of activity products analysis, questionnaire method, method of generalization of independent descriptions, self-evaluation method, genetic method, quantitative analysis of the research results, qualitative analysis of the research results.**

Formalized Structure of the Theme Contents

Method is the way of scientific cognition of phenomena and processes of objective reality.

METHODS OF PSYCHOLOGICAL RESEARCH



Questions for Individual Work

1. What is the method of scientific research?
2. Which methods are considered to be the basic ones?
3. Which methods are considered to be additional ones?

4. Name the requirements to application of the observational learning method.
5. What is the essence of the experiment method?
6. What is the main principle of the tests method?
7. What is the essence of the sociometric method?
8. What does the quantitative analysis of the research data give for the psychic phenomena investigation?
9. What does the qualitative analysis of the research data give for the psychic phenomena investigation?

Alternative Test Tasks for Self-Control

1. Must the application of the research methods always be based on the certain principles?
2. Do you agree with the idea that self-observational learning insolvency, as the method of scientific research, displays in interpretation subjectivism of its results only?
3. Do you agree with the idea that the experiment as a method can be employed for the research of any psychic phenomena?
4. Can one investigate the psychological conformities to natural laws by means of the tests method?
5. Does the method of activity products analysis give an opportunity to study all the spheres of human psyche?
6. Do you agree with the idea that the division of methods into basic and additional ones is based overwhelmingly on their possibilities to cover wider or narrower group of the psychic phenomena for the investigation?

Tasks and Problem-Solving Situations

1. What is the main difference between the natural experiment and observational learning? What are the positive aspects of the first and second methods?
2. Formulate the basic requirements to the conversation and questionnaire methods, which should be taken into one's account for providing objectivity and validity of research results.
3. What is the results interpretation correctness, obtained by the application of tests?
4. Which values must be determined during the quantitative analysis of the research data? What do they characterize?

Used and Suggested Literature

1. Блейхер В.М., Бурлачук Л.Ф. Психологическая диагностика интеллекта личности. – К.: Вища школа, 1978.
2. Гильбух Ю.З. Метод психологических тестов: сущность и значение // Вопр. психологии. – 1986. – №2.
3. Максименко С.Д., Назар М.М. Построение проукраинских ментальных карт для обеспечения информационной безопасности граждан Украины (Часть первая). Fundamental and applied researches in practice of leading scientific schools. Issue: 4 (10): Psychology. Economics / Ed. by S. Maksymenko, V. Lunov, A. Hall. Co-pub. Publishing office: Accent Graphics Communications – Hamilton, ON, 2015. P. 88-108.
4. Максименко С.Д. Теорія і практика психолого-педагогічного дослідження. – К.: КДП, 1990. 240 с.
5. Максименко С.Д. Основи генетичної психології. – К., 1998. – 218 с.
6. Максименко С.Д. Общая психология. – М. – К.: Рефл-бук, Ваклер, 1999. 528 с.
7. Максименко С.Д. Загальна психологія. – К.: Форум, 2000. 543 с.
8. Максименко С. Д., Соловієнко В. О. Загальна психологія: навч. посібн. 2-ге вид., стереотип. Київ: МАУП, 2001. 256 с.
9. Максименко, С. Д. (2002). Розвиток психіки в онтогенезі: Теоретико-методологічні проблеми генетичної психології (Т. 1). Київ: Ваклер.
10. Максименко С.Д. Загальна психологія. – Вінниця: Нова книга, 2004. 701 с. URL : <https://psycholing-journal.com/index.php/journal/part/view/715>
11. Максименко С. Д., Максименко К. С., Папуча М. В. Психологія особистості: підручник. Київ: ТОВ «КММ», 2007. 296 с.
12. Sergiy D. Maksymenko, Mykola V. Yevtukh, Yaroslav V. Tskekhmister, Kseniia S. Maksymenko, Olena O. Lazurenko. Psychology and Pedagogics: Text-book. – К.: Publishing house 'Slovo', 2012. – 520 p.
13. Maksymenko S.D. (2015). Genesis of Personality Existence: monography. Montreal: Accent Graphics Communication
14. Максименко С.Д., Орап М. Psycholinguistic Predictors of Health (Психологічні предикатори здоров'я) // Psycholinguistics. – 2018. – №24(1) –Р. 252-268.
15. Максименко С., Ткач Б., Литвинчук Л., Онуфрієва Л. (2019). Нейропсихолінгвістичне дослідження політичних гасел із зовнішньої

реклами. Психолінгвістика. Психолінгвістика. Psycholinguistics, 26 (1), 246–264. DOI 10.31470/2309-1797-2019-26-1- 246-264.

16. Maksimenko S.D., Serdiuk L. Psychological Potential of personal self-realization. Social Welfare. Interdisciplinary Approach, 6(1), 93-100

17. Maksymenko, O. Lysenko Modern methods of diagnosing virtual addiction among adolescents: relevance and prospects. Монографія/ за ред. Аніти Янковської, Riga, Latvia, IZDEVNICIBA BALTIJA PUBLISHING, 2019. С.-394-410

18. Maksimenko S.D. Principles of website design for professional psychological diagnosis in different specialities. Information Technologies and Learning Tools / Institute of Information Technologies and Learning Tools of NAES of Ukraine. –2019. – Vol. 73., № 5. – P. 284-294.

19. Максименко С.Д., Костюк О.В., Максименко К.С., Немеш О.М., Луньов В.Є. Мультилінгвістичний дискурс невротизації майбутніх лікарів: монографія. Київ: “Видавництво Людмила”, 2020. 171 с

20. Максименко С.Д. Психологічні особливості розуміння студентами Інтернет-текстів, Psycholinguistics.–2020. – Vol. 28(1),– P. 95-105.

21. Maksymenko, S.D.(2021) Genetic principles of creative personality confident as a propulsion of mental development. Ottawa: Accent Graphics Communications and Publishing. Glasgow: Society for the support of publishing initiatives and scientific mobility Limited.-615 p.

22. Максименко С.Д., Я.В. Руденко, А.М. Кушнерьова, В.М. Невмержицький. Психічне здоров'я особистості: посібник для вищих навчальних закладів. Київ: “Видавництво Людмила”, 2021. 438 с.

23. Максименко С.Д., Яланська С.П. Генетико-креативний підхід: діяльнісне опосередкування особистісного розвитку: монографія. Київ: “Видавництво Людмила”, 2021. 508 с.

24. Максименко С.Д., Піроженко Т.О., Пророк Н.В., Папуча М.В. Психологічний портрет особистості дитини: вікові періоди Київ: “Видавництво Людмила”, 2021. 104 с.

25. Maksimenko S.D. Features of the components of students' psychophysiological readiness to work as teachers, Idōkan Poland Association “IDO MOVEMENT FOR CULTURE. Journal of Martial Arts Anthropology”, Vol. 21, no. 2 (2021), pp. 11–18

26. Максименко С.Д., Руденко Я.В. Мультипсихологінчий дискурс вокалотерапії психосоматичних розладів особистості:

монографія / С.Д. Максименко, Я.В. Руденко. Київ: «Видавництво Людмила», 2021.904 с.

27. Максименко С., Деркач Л., Кіричевська Е., Касинець М. Психологія когнітивних проців: науковий посібник / Національна академія педагогічних наук України, Інститут психології імені Г.С. Костюка. Київ: «Видавництво Людмила» 2022. 420 с.

28. Maksymenko S.D., Viktor Burlaka , Oleksii Serdiuk, Jun Sung Hong , Lisa A. O'Donnell, Vitalii Panok and others. Child Internalizing Problems in Ukraine: The Role of Prosocial and Antisocial Friends and Generalized Self-Efficacy/ Societies 2022, 12, 144.

29. Максименко С.Д., Ірхін Ю.Б., Деркач Л.М., Марусинець М.М., Касинець М.М. Психологічна організація модульного формування когнітивних здібностей: генетико-креативний підхід: навчальний посібник. Том 1. Київ: «Видавництво Людмила», 2023. 384 с.

30. Максименко С.Д., Ірхін Ю.Б., Деркач Л.М., Марусинець М.М., Касинець М.М. Психологічна організація модульного формування когнітивних здібностей: генетико-креативний підхід: навчальний посібник. Том 2. Київ: «Видавництво Людмила», 2023. 356 с.

31. Максименко С.Д. Медична психологія: підручник / за редакцією академіка С. Д. Максименка. Том I. Київ: «Видавництво Людмила», 2023. 458 с.

32. Максименко С.Д. Медична психологія: підручник / за редакцією академіка С. Д. Максименка. Том 2. Київ: «Видавництво Людмила», 2023. 520 с.

33. Maksymenko S.D., Lunov, Vitalii, Matiash, Mykhailo and Subbota, Spartak and Tolstoukhov, Anatolii, Ukrainian Syndrome: How Ukrainian Youth Understands the New Norm of Life and Relates to Leraing in face to 2022- Full-Scale Russian/ SSRN. –2023–№1(January 15, 2023). – P. 1-10

34. Максименко С.Д., Ірхін Ю.Б., Деркач Л.М., Марусинець М.М., Касинець М.М. Психологічна організація модульного формування когнітивних здібностей: генетико-креативний підхід: навчальний посібник. Том 1. Київ: «Видавництво Людмила», 2023. 384 с.

35. Максименко С.Д., Ірхін Ю.Б., Деркач Л.М., Марусинець М.М., Касинець М.М. Психологічна організація модульного формування когнітивних здібностей: генетико-креативний підхід: навчальний посібник. Том 2. Київ: «Видавництво Людмила», 2023. 356 с.

36. Maksymenko S.D., Maksymenko K.S., Svitlana Yalanska, Nina Atamanchuk, Valeriy Zhamardiy, Viktoriia Donchenko Psychophysiological unloading with compliance taking into account: aeroapiphytotherapy resource. *Acta Balneologica*. – 2023. – № LXV (2), P.98-104

37. Максименко С.Д., Деркач Л.М., Розуміння сучасної когнітивної війни в глобальному вимірі, її генезис в українському контексті: огляд та напрямки майбутніх досліджень. Оборона і стратегія. університет оборони БРНО. Випуск: Том 23, №1 (червень 2023). С.126-148

38. Maksymenko S.D. The Historical Sense of Psychological Crisis: Modern Understanding of Genetical-Psychological and Integrative Approach. SSRN. –2023–№ 3 (May 9, 2023). –P. 1-10

39. Максименко С.Д., Носенко Е.Л., Експериментальна психологія: Підручник для студентів. К.: Центр учбової літератури, 2023. – 360 с.

40. Максименко С.Д., Загальна психологія. Навч. посібник для студентів вищих навч. закладів. – Вид. 2-е, перероб. та доп. – К.: Центр навч. літератури, 2023. – 272 с.

41. Maksymenko, S., Ivashkevych, E., Kharchenko, Y., Tarnavska, O., & Sinjavaska, N. Semantic and Pragmatic Meaning of Discursive Units in the Process of Communication of a Psychotherapist with a Client. *PSYCHOLINGUISTICS*, 34(1)2023, 129-172.

42. Максименко С.Д., Л.М. Деркач, Ю.Б. Ірхін. Диференційна психологія. Видання 2-ге, перероблене і доповнене: підручник/ за загальною редакцією академіка С.Д. Максименка. Київ: «Видавництво Людмила», 2024. 572 с.

43. Maksymenko, Serhii, Orthobiosis in Human Development: A Genetic Psychological Perspective on Personality Traits and Their Pathologization (January 29, 2024).

44. Генеза сучасної інформаційно-когнітивної (гібридної) війни в українському контексті та глобальному вимірі: наукове дослідження/ С.Д. Максименко, Л.М. Деркач. Київ: «Видавництво Людмила», 2024. 128 с.

45. Максименко С.Д. Методологічні принципи конструювання модульного психологічного супроводу і психічного здоров'я : навчальний посібник. Том. 1 / С.Д. Максименко. Київ: Видавництво Людмила, 2024. 718 с.

46. Максименко С.Д., Гришко О.Д., Психологічний супровід і психічне здоров'я: навчальний посібник. Том. 2 / С.Д. Максименко, О.Д. Гришко. Київ: Видавництво Людмила, 2024. 468 с.
47. Максименко С.Д. Методологічні аспекти психології навчання // Психологія. –1988. –Вип. 31.
48. Максименко С.Д. Методологічні проблеми вікової та педагогічної психології // Психологія. – 1982. – Вип. 21.
49. Максименко С.Д. Проблема метода в возрастной и педагогической психологии // Вопр. психологии. – 1989. –№4.
50. Максименко С.Д. Проблема метода в науке. – К., 1982.
51. Максименко С.Д. Психология у соціальній та педагогічній практиці: методологія, методи, програми, процедури: Навчальний посібник для вищої школи. – К.: Наукова думка, 1998. – 216 с.
52. Максименко С.Д. Психолого-педагогические аспекты учебного процесса в школе. – К.: Рад. школа, 1983.
53. Максименко С.Д. Розвиток психіки в онтогенезі. В 2-х т. – К.: Форум, 2002.
54. Максименко С.Д. Розвиток психіки в онтогенезі. Моделювання психологічних новоутворень: генетичний аспект. – К.: Форум, 2002. – Т. 2.
55. Максименко С.Д. Теорія і практика психолого-педагогічного дослідження.–К., 1990.
56. Максименко С.Д. Теоретико-методологічні проблеми генетичної психології. – К.: Форум, 2002. – Т. 1.
57. Максименко С.Д., Носенко Е.Л. Експериментальна психологія (дидактичний тезаурус): Навч. посіб. – К.: МАУП, 2002.
58. Психологія / За ред. Г.С. Костюка. – К.: Рад. школа, 1968.
59. Теорія і практика психологічного дослідження.–К., 1990.
60. Sergey Maksymenko. General Psychology. – Vinnnytsya, 2005

Part 3

PSYCHE AND CONSCIOUSNESS DEVELOPMENT

3.1. Psyche Origin and Development

Psyche origin and development are one of the most complicated questions. The scientific explanation of this question was developed on the basis of the achievements of biological and historical sciences.

On a certain development stage of the nature due to the interaction of mechanical, thermal, chemical, acoustic and light properties of the matter from the inorganic matter an organic matter appeared – the albuminous matter. In the organic world the reflection process has acquired new properties. In the inorganic matter the mentioned process is passive, but in the living matter it is active. The distinguishing feature of this process is the ability of the object (which reflects) to react to the reflected aspect. The first displays of that biological reflection are the interchange processes of matters – assimilation and dissimilation, which take place in the living matter and are the necessary life conditions. Complicated albuminous molecules, called coacervates, are capable of reacting to influences, connected with the metabolism.

The achievements of modern biology and biochemistry testify that **coacervates** react to influences, they are useful and harmful for assimilation of substances and those conditions, under which they take place. The indifferent influences do not cause the reaction. This property of coacervates is called *irritability*. Irritability of the organized matter is the basic property which occurs during the transition from the inorganic matter to organic one. Irritability is typical of the plant stage of the life development.

On the stage of life origin creatures begin react not only to biotic influences, which are included into the interchange process of matters, but to neutral, non-biotic influences, if they signal about the appearance of vitally important (biotic) influences. The ability to react to the neutral irritations, which signal about the appearance of vitally important influences, is termed *sensitivity*. The appearance of sensitivity indicates the emergence of psyche.

3.2. Development of Psychic Activity Mechanisms

The material substance of psyche is the nervous system and its peripheral organs – **receptors**. These psyche mechanisms are the result of a long interaction process of the living organisms with their environment.

Behaviour is an original activity, displaying of vital functions of living beings, due to which they fit to its encirclement and satisfy their biological needs. Animal behaviour is studied by physiology and psychology. Physiology outlines its physiological and biochemical mechanisms and conformities to the natural laws, and psychology studies psychological mechanisms.

As it was mentioned above, psychic reactions are connected with the appearance of sensitivity in living organisms, ie reactions to neutral indifferent for an organism irritations. Such reactions can be observed under the experimental conditions in some types of protozoa. It has been proved experimentally, that it is possible to cause the reaction of infusorian to irritants which are indifferent to them (eg the light), combining them with the irritants important for life (eg the temperature).

Thus, protozoa already possesses the original adaptation mechanisms to the environment as the life guarantee method. In the evolution process under the influence of complicated life conditions these mechanisms of multicellular organisms transformed into the nervous system and receptors gradually. The morphological and physiological phenomena, form and function in this transformation take place in unity, they are interdependent.

The behaviour regulation mechanisms of creatures and their function in the process of adaptation activity gained a phylogenetic foothold in organisms and are hereditary for the next generations, providing them with adaptation functions to the conditions of life in their ontogenetic vital functions.

One should distinguish such **basic stages of the development of the nervous system** as behaviour and psychic activity mechanisms:

- the diffusive nervous system;
- the ganglion (nerve-knot and chain) nervous system;
- the tubular nervous system.

The diffusive or **netlike** nervous system is an elementary form of the nervous system, appropriate to such multicellular living beings, as jelly-fish, medusa, actinia, star-fish. With the appearance of the diffusive nervous system the excitation conductivity is accelerated, reaching 0.5 metre per second; on the contrary to this the excitation conductivity speed on protoplasm, which inherent in protozoa, which do not have the nervous system, is only 1-2 microns per second. The acceleration of the excitation conductivity in the diffusive nervous system gives an opportunity for living beings with such nervous system to realize adaptation reaction more quicker. However the possibilities of the diffusive nervous system are limited: at this stage of the nervous system development there is no permanent encephalic end, the nerve-center, which would concentrate the obtained information and manage it, create a program of the differentiated behaviour, which is peculiar to organisms at the higher, ganglion development stage of the nervous system.

The ganglion nervous system appeared because of the considerable life conditions complication. The need in central mechanisms processing information and motion regulation emerged. Nerve-knots, *ganglions*, began to concentrate excitations which emerged in the nervous fibres, which were joined with the help of the ganglion and to direct motions-reactions to these excitations. **The ganglion** nervous system is the first stage of the nervous processes centralization; it can be observed in the lowest types – worms.

The higher stage of the knot nervous system is **the chain system**. When in the organism knots, connected in chains, or ganglions appear, among which the main knot concentrates excitation, processes them and regulates motions of the separate parts of the organism. One can notice the action of the ganglion nervous system in annelida, and it achieves the highest development in crustacea, spiders, insects.

So, annelida have nervous fibres at the front side and receptores at the end and perceive light, thermal, chemical, and humidity changes, which appear around them. The signals of these changes are conducted to the main ganglion and worked out in it. So-called «Behaviour programme», is formed which materializes in a kind of motions of the annelida separate body segments. The excitation conductivity in the chain nervous system is more higher, than in the diffusive one. So, the main ganglion realizes regulative vital functions of annelida. In the

chain system the new principle of the nervous system activity emerges – the integration of nervous impulses and central guidance of the organism vital functions.

At this development stage of the nervous system *receptors* appear, they are information recipients. The comparative anatomy and physiology data testify that contact organs were the first to develop and then distant, or telereceptors (sight, hearing, scent). Sight appeared under the certain conditions from the organism sensitivity to the light (electromagnetic) irritants. At first this sensitivity dispersed in the whole organism, but afterwards at the higher stages the organism evolution it centred gradually at the front in, its main part. Hearing appeared from the vibration sensitivity. It develops at latest, the majority of spineless don't have it. The olfactory sensitivity appeared from the undifferentiated chemical sensitivity, in which the olfactory and gustatory orientations of the organism were connected in the environment. Many spineless have undifferentiated gustatory and olfactory sensitivity. The receptors and their differentiation developed in vital functions and in motions. Living beings, which have differentiated receptors, orient in the environment better, securing their needs in food, reproduction, avoiding danger. Insects possess not only the impellent organs or receptors, but the secretory organs as well for producing web by spiders, producing nectar by bees, building pipes by annelida etc.

Creatures with the ganglion nervous system are capable of «teaching» and «re-education», creating due to a great number of attempts, of acquired habits to move in a given direction with the aim of avoiding painful irritation. Annelida needed over 150 attempts for them with lower number of mistakes to move in the labyrinth to the right, to avoid electric irritation, which effected it during its motion to the left. “To re-educate”, ie to change this «taught» motion, it was necessary to make more than 225 attempts. So, the ganglion nervous system of annelida enables it not only to produce the new forms of behaviour, but to preserve the produced acquired habits. It testifies to the presence of the primitive “memory” form in annelida.

The vertebrate animals got a more complicated nervous system stood because of the life conditions complication. The integration processes and action centralization of the nervous system appeared in the formation of the cerebrospinal nervous system, which consists of

the spinal and cerebral cord. The cerebrum was formed from the cerebral tube, that's why the nervous system of vertebrates is called **tubular**. In the development process of vertebrates under the influence of life conditions the oblong brain and cerebellum, the middle and intermediate brain and cerebral hemispheres were formed, where the most complicated for its structure and functions cortex of the cerebral hemispheres developed. The cerebral cortex of the big hemispheres unites, integrates, regulates all organism's activity. The higher sections of the cerebrum were generated gradually, and their structure and functions in different vertebral (the vital functions of which take place under different natural conditions) are not the same. Animals, which are at the higher development stage, have more developed cerebrum. The data about the development correlation of the cerebrum and spinal cord of the different animals and people are significant. If the development of the spinal cord is taken for 1, then the specific gravity of the cerebrum relatively to spinal is the following: for tortoise – 1, cock – 1,5, horse – 2,5, cat – 3, dog – 5, chimpanzee – 15, man – 49. With the evolution of the animal world the specific gravity of the cortex cerebrum increases and begins to play a leading role.

The researches proved, that extirpation (annihilation) of the cortex effects differently animals visual and impellent functions which are at different stages of the biological evolution. Consequently, as for a visual function birds after the cortex annihilation of the cerebral hemispheres continue to see, get onto a marked place, rats do not distinguish forms, react only to light, a monkey turnes blind. As for the impellent function: birds after the cortex annihilation of the cerebral hemispheres continue to fly, their motions are not upset; cats renovate their motions recommence after several hours; dogs can stand for 24 hours, but independent motions are upset; monkeys can stand only with the outsider help.

The extirpation of the cerebral hemispheres of fish does not influence its vital functions, of frogs – does not almost mark, of birds- it marks, in particular, after recovering, a bird begins to fly, but does not orient in the environment; a cat does not attack a mouse even if it is hungry; a dog becomes an invalid, it does not find food and recognize its master and gain the opportunity to get some experience.

3.3. Psyche Development at the Different Stages of Animal World Evolution

The typical sign of the psychic reaction is the organism sensitivity to indifferent irritants, which under certain conditions (their confluence with the biologically important irritants) signal about the possibility or necessity of biological organism needs satisfaction.

Sensitivity arises on the irritability basis. Sensitivity, as Leontyev O. considers [7], is genetically the same, as irritability to influences, which orient the organism in the environment, carrying out signal function.

Irritability is typical of organic nature in general. Due to it in the plant life the born reactions take place, which are called tropisms. **Tropism** is automatic motions of plants and protozoa organisms in a certain direction. These motions are caused by inequality of the physical-chemical processes in the symmetric parts of the organism, which are caused by one-sided irritants influences on organism. The theory of tropism for animals was developed by Zh. Leb. However, these animal reactions are not mechanical, as Zh. Leb considered. Under the experience influence they gain plasticity and changeability.

According to energy types, which influence organisms under the conditions of their existence, one can distinguish phototropisms, chemotropisms, heliotropisms, galvanotropisms etc. For example, sunflower moves under photo- and thermotropisms influence; in the root and stem germination orientation, in annelida and some insects behaviour, which hide in the soil or crawl to the plants tops, the action of geo-, photo- or thermotropisms is shown. Under the life conditions influence of the nervous system, the basic property of which is sensitivity to influences of the nearby environment, psychic reflection appeared, which complicated further because of life conditions complication, which caused the complication of the organism structure in its turn.

One distinguishes the following basic stages of animal psyche development:

- elementary sensory psyche;
- perceptive psyche;
- intellect.

The Stage of Elementary Sensory Psyche. A typical peculiarity of this psyche development stage is the following: animals behaviour is

caused by the action of separate objects properties on the organism, in their surrounding animals live ie, by chemical, light, temperature etc. properties.

This stage is typical overwhelmingly of spineless and those vertebrals, which live in the water, amphibious and reptiles, which do not have object perception. At this stage the sensitivity differentiation to light, touch, smells, impellent sensitivity takes place as a result of which the palpable, visual, olfactory and auditory appear and develop analysers. The level of development of analyzers and their receptor part depends on the life conditions peculiarities of a living being. So, spiders, insects have a well developed palpable sensitivity (on the tentacles, paws, porches). Chemical sensitivity is developed in spiders and other spineless. It is differentiated in them into olfactory and gustatory sensitivity. A May-bug has 50 thousand olfaction organs, and drone has over 30 thousand ones. Insects are sensible to insignificant smells. Bee distinguishes the smell of the orange peel from 43 essential volatile oils. Bees react to smell, they do not adopt a stranger bee. Insects are topochemical creatures ie they have zones in the organisms, which sensible to the chemical irritants.

Insects sensitivity to temperature changes and their visual sensitivity are well-known. Bees distinguish colours and forms, but not geometrical figures. The majority of insects are deaf. Only those insects have hearing, which by their own motions (by porches) call sufficient intensive oscillation of the sound waves.

The perceptive psyche stage. The perceptive stage of animals activity develops after the stage of sensory psyche and on its basis.

This stage is characterized by the object reflection as the whole, but not of its separate properties, as it is observed at the sensory psyche development stage. For example, if mammal is fenced from food, then it will react not only to the object, where its activity is directed (to food), but to the conditions, under which this activity takes place, that is it will attempt to overcome an obstacle. At the sensory stage such reaction to conditions, for which animal's vital functions take place, does not occur.

The perceptive psyche stage is typical of mammals. It is caused by the essential anatomo-physiological changes in the organism: by the development of the cerebral hemispheres of cerebrum, and especially their cortices and distant analysers (visual, auditory), by reinforcement of the integration cortex activity.

The conditioned reflex cortex activity of the cerebral hemispheres at the level of perceptive psychic activity is the foundation for the conceptions formation. The duration of memory images conservation increases with the evolution of vertebrates. For instance, at non-permanent excitation figurative memory acts: for a rat – 10 – 20 seconds, for a dog – to 10 minutes, for a monkey – to 16 – 48 hours.

The duration of memory images conservation is a valuable peculiarity of perceptive level of psyche development. This peculiarity is an important precondition of the intellectual animals behaviour emergence.

At the stage of perceptive psyche complicated changes in the distinction and generalization processes of the conceptions take place. Differentiation and generalization of objects images occur. These generalizations are not the sum of separate feels, called by simultaneous influence action, properties of different objects, but their unity, original integration, which is the foundation for transference of the operation from one concrete situation into another, objectively similar to it which, essentially complicates animals behaviour at this stage of psychic development.

Differentiation and generalization success depends not on likeness degree, but on the biological role of that which influences the animal.

At the stage of perceptive psyche generalization development is connected with the development of the integrative cortex zones of the cerebral hemispheres, which unite motions into the integral operation (impellent fields), feels – into the integral image (sensory fields).

The intellect Stage. Psyche of the majority of mammals remains at the perceptive stage. But for anthropoids – anthropoid monkeys – reflective activity rises at the higher step of its development. This higher step is called the intellect stage or “the stage of manual thinking” (O.Leontyev [7]). According to the evidence, the elementary mental activity, the element of visual – action thinking is typical of monkeys, especially chimpanzee. Monkeys, can learn and reeducate, indicate greater processes mobility of excitation and inhibition more quicker than other animals.

I. Pavlov mentioned that the analytico-synthetical cortex activity of the dog’s cerebrum is the concrete elementary thinking.

However, intellection and animals intellect are not the same as human's intellect. There are the great differences between them.

The solving tasks is typical of the intellect stage. A monkey (chimpanzee) could not immediately get food (banana, orange etc.) under the experimental conditions. In the cage, where it lived, there was a stick, by means of which it could get some food. The purpose of the task was to determine whether the monkey will guess to take the stick in order to get some food or not? At first the chimpanzee attempts to get food by the hand, but it fails. It begins to manipulate with the stick. If the stick and food are in the field of its vision the monkey directs the stick on food and takes hold of it, moving it to itself. Such researches were made in different variations. The monkey solved the tasks of the experiment successfully. The most complicated was a two-phase task: the food could be got by a long stick, but at first this long stick was necessary to be got by a short stick, which was within its reach. The monkey solved this task. Monkeys are capable of uniting two actions of successive operation into one act: the first action is the preparatory one for realization of the second decisive operation (two-phase tasks).

In animals vital functions it is easy to notice their mutual relations. These relations are typical of the original motions, poses, acoustic signals. At the different development stages of creatures these methods of relations and mutual influences are of various difficulty. By their means animals signal about danger, food, anger, fear and pass this or that information. But these relation varieties, so-called "animals language" are of instinctive character. These varieties are the expression of the emotional states. Unlike the human language the "language of animals" is not a means of broadcasting some individual experience to other animals.

The intellectual anthropoids behaviour is connected with the development of the cortex cerebral hemispheres, especially the frontal zones and their front-line sections. Speaking about monkeys, if one breaks the back part of these zones, then monkeys fail to solve two-phase tasks.

The intellect stage, which is typical of higher mammals and which has achieved the highest development level for anthropoid monkeys, is pre-history of emergence and development of human consciousness.

Fixation and individual changeability of behaviour are the typical features of all stages of psychic animals development. Fixed behaviour forms, that are hereditary, are **instinctive behaviour forms. Instincts** (from Latin "instinctus" – motive) are organism's interaction acts with the environment. Their mechanism is the system of unconditioned reflexes. Instinctive activity frequently covers mechanism of tropisms. The scientific explanation of instincts origin was given by Ch. Darwin (1809 – 1882), who proved, that the animals behaviour structure is an organic unity and the result of the natural selection, those changes in physical organization and behaviour, which were caused by the external conditions and fixed in the organism as a result of expediency for the organism vital functions. One distinguishes instincts of feeding, reproduction, self-preservation and other forms of the genitive or specific adaptation to the environment.

The instinctive behaviour forms are considered to be a great motive for the organism. Depending on life conditions and organism state this or that behaviour acts arise alternatively such as reproduction, defence, acts connected with feeding, etc. In individual adaptation of animals to life conditions instincts seem to be realized actions. If one breaks some chain in instinctive activity, animals continue to realize the following acts in the chain of instinctive action, though this action does not provide a success. Consequently a broody hen will continue to breed eggs, even if we take them away, and a bee, which began to stick by honey honeycombs, would continue to do it even if honey was taken. So, instinctive actions are unrealized, mechanical actions.

Instinctive actions in individual animals life can change. For example, one can secure "for peaceful" co-existence of a fox and a hen, a cat and a mouse. However, such individual instinct change is not hereditary.

Changeability in the fixed conduct forms originates in the acquirement of the new acquired habits and action methods which emerge as a result of reiterated natural expedient execution of motions and actions or in the training process.

3.4. Origin and Historical Development of Human Consciousness

Along with the development of sciences, especially History and Biology, the views on human origin and consciousness formed gradually.

The most important precondition for the origin of **human consciousness** was a peculiar life conditions complication, in which anthropoid creatures lived. Under the influence of life conditions their central nervous system became more complicated structurally and functionally. In the cerebral hemispheres parietal, the temporal and especially frontal sections developed gradually which realized the higher adaptive functions. They developed extremely noticeably in man under the labour influence. This fact is testified by the following: monkey's frontal sections comprise 0.4 per cent of the cerebral hemispheres, orang-outang's and chimpanzee's – 3.4, and man's – 10 per cent.

In the process of the biological stage of psyche development the preconditions for the origin of the higher specifically human psyche form appeared, ie consciousness. Knowledge of the biological psyche development stage as the beginning of human consciousness development gives us the opportunity to explain its origin from the scientific point of view.

During historical development in different activity types specifically human, consciously directed cognitive activity, imagination, human senses and will qualities, various psychic properties, which essentially differ from instinctive psychic animal activity were formed gradually.

Labour, social way of life are the basic preconditions for historical development of human consciousness as the higher psyche form, in which human attitude towards the environment, ability to change the nature and to fit it to one's needs become obvious. These psyche peculiarities are not typical of animals. They do not discern themselves from the environment, adjust to it passively.

Knowledge of the origin conditions and development of consciousness are of great importance for its formation.

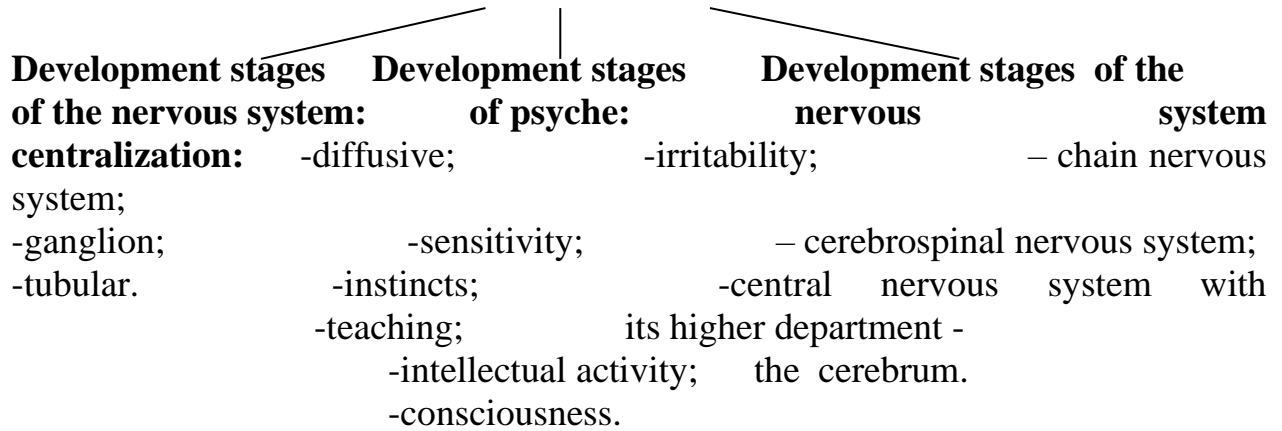
Theme Key Notions

☞ **Irritability, sensitivity, tropism, instinct, intellectual behaviour, conscious activity, diffusive nervous system, ganglion nervous system, tubular nervous system.**

Formalized Structure of the Theme Contents

Informative theme contents: psyche evolution at the all development stages of living creatures.

PSYCHE DEVELOPMENT AND ITS MECHANISMS



Questions for Individual Work

1. Why is the ability to reflection typical of living matter?
2. What is the essence of psyche signal role?
3. What are the development stages of the nervous system?
4. What are the psyche development stages?
5. In what way is psyche development connected with the environment and life conditions?
6. What is the role of labour in the origin of the human consciousness?
7. What is the role of language in the development of human consciousness?
8. What aspects are common and different in psychic activity of animals and human beings ?
9. What are the features of human consciousness?
10. Characterize the development conditions of human consciousness.

Alternative Test Tasks for Self-Control

1. Is the ability to reflection the essential characteristic of a living matter?
2. Is it possible to affirm, that the development of the reflection ability is the result of the struggle for the biological systems survival?
3. Is the following sequence of the development stages of the nervous system correct or not: diffusive, chain, cerebral, ganglion, cerebral spinal?

4. Is the following sequence of psyche development stages correct or not: irritability, sensitivity, teaching, instincts, intellectual activity, consciousness?

5. Can one affirm that the essence of difference between human and animal's psyche is in the following: for human it is a transformation instrument of the world with the aim of maximum satisfaction of one's needs, and for animal it is adaptation mechanism to the real life conditions?

6. Are the higher psyche forms without the sign systems, for example, languages, possible or not?

Tasks and Problem-Solving Situations

1. Why is the elementary sensitivity considered to be an elementary psyche form, but irritability is considered to be a reflection act only?

2. Why does a spider, placed in the jar together with a fly, not "recognize" it even when it is hungry, while under the usual conditions it catches flies into the web and eats them?

3. Why is complicated bees' behaviour not called labour?

4. What is the qualitative distinction between the intellectual behaviour forms of higher animals and human being?

5. Why has the human brain not experienced any changes during its evolution, while each new stage of psyche development of animals caused changes in the organism and nervous system?

6. What can be an index of the animal and human instinctive behaviour character?

7. Why can the exchange of signals, that happens among animals, not be identified with the human language?

8. Is it possible to attribute the psyche conformity to natural laws, revealed while investigating animals, to human psyche? Substantiate your answer, please.

Used and Suggested Literature

1. Загальна психологія / За загальн. ред. акад. С.Д. Максимен-ка. – К.: Форум, 2002.

2. Максименко С.Д. Розвиток психіки в онтогенезі. Моделювання психологічних новоутворень: генетичний аспект. – К.: Форум, 2002.

3. Максименко С.Д. Розвиток психіки в онтогенезі: Теоретико-методологічні проблеми генетичної психології. – К.: Форум, 2002.

4. Психологія / За ред. Г.С. Костюка. – К.: Рад. школа, 1968

Chapter II PERSONALITY. SOCIAL GROUPS

Part 4

4.1. Traditional approach to the problem of personality structure

Personality originates and is born in love; is self-realized as a whole spiritual being in the natural and social vectors of the noosphere and is the center, the genetically ascending unit of the universe.

Personality is a form of existence of the human psyche, which is a whole, capable of self-development, self-determination, conscious objective activity and self-regulation, and has its own unique and unique inner world.

Personality is considered in development and dynamics. It has its origins, its beginning, and is the product of the transfer of needs into one being of two people who love each other. In this context, the continuation of the family is the individual, from whom and from what depends the beauty, natural ability, spiritual delicacy of the individual.

Among the modern global trends successfully implemented in Ukrainian psychological science, the problem of personality development throughout life should also be mentioned. The personality must form a predominant attitude towards fruitful activity.

Among the modern global trends successfully implemented in Ukrainian psychological science, the problem of personality development throughout life should also be mentioned. The personality must form a predominant attitude towards fruitful activity.

Practice reveals facts related to the self-development of the individual, mechanisms of experience and psychological life in general. It is clear that they cannot be scientifically studied and interpreted in the traditional (and, in fact, the only) stimulus-reactive paradigm. Long-term and diverse research conducted by us in the context of cultural-historical theory showed that only the genetic approach can lead psychology beyond the specified paradigm, since any psychological

phenomenon can be understood from the point of view of its self-development.

We consider personality in two planes. The traditional approach gives the following definition of personality:

Personality is a form of existence of the human psyche, which represents integrity, capable of self-development, self-determination, conscious objective activity and self-regulation, and has its own unique and unique inner world.

We consider personality as:

Personality originates and is born in love; is self-realized as a whole spiritual being in the natural and social vectors of the noosphere and is the center, the genetically ascending unit of the universe.

4.2. Meaningful personality traits

Psychic phenomena of a person do not exist, in fact, separately and separately. Together, they form a unique and unrepeatable pattern – psychological integrity (interfunctional psychological system). Only an understanding of the structural and dynamic regularities of this integrity can reveal to us both an understanding of its individual components (psychological functions), and an awareness of the meaning of human existence and ways to optimize this existence. This integrity and inseparable unity of the human psyche is what forms a personality.

L. I. Bozhovych defines personality as "such a level of human development that allows him to manage both the circumstances of his own life and himself" [38, 228]. In various approaches, the quality of self-regulation and self-development is necessarily noted as fundamental for the individual.

It can also be said the other way around: a person's life in the world is a valid way (form) of the existence of a higher psyche. We do not find in the world other forms of existence of the higher level of the psyche, except for the individual. We can, of course, say that objects and phenomena of culture represent another, specifically transformed way of its existence. This is true, but they are the embodiment of personality. Objectification, i.e. the additional transfer of the mental (ideal) into the objective (material) is carried out by individuals, leaving in the object, imprinting in it all the unique originality of this particular individual – the author.

The individuality of the nature of the human psyche means, on the other hand, that any individual mental process acquires a very complex structure. It has its own regularities and qualities, but along with that it reflects the whole integrity of the individual. Therefore, when studying a separate mental phenomenon (thinking, emotions, memory, etc.), only a special and artificial abstraction allows the researcher to draw conclusions about it in a "pure", so to speak, form. In fact, it is always the thinking of this particular person, his emotions or any other phenomena. This influence of integrity (its design) on a specific phenomenon is not something "trivial", extraneous. After all, if we talk about thinking, in fact, its indicators are determined not only by the peculiarities of the intellectual sphere: motives of activity, goals, values, inclinations, stable and temporary emotional states, even somatic health – all this together determines the functioning of any -what mental function. It is especially important to consider this position in the field of practical psychology.

Let's thoroughly consider personality traits, since these qualities are complex and internally contradictory, and their understanding is necessary for a real understanding of personality psychology.

Integrity. Personality, of course, is an entity that consists of individual mental phenomena (processes, states, properties). But, at the same time, it is never just the sum of these phenomena, since personality cannot be understood in the logic of such a kind of "adding understandings" of its individual components. The integrity of the personality, in fact, is not determined only by its components. Moreover, each part never exists separately and independently, it is the carrier of the whole personality, as well as its reflection. K.-H. Jung's opinion that integrity never "fits" within the limits of consciousness, like any other mental function, seems important here. "Integrity has an immeasurable fluidity, it is more ancient and, at the same time, younger than consciousness and encompasses it in time and space" [323,47]. Personality lives, develops and is formed only as a whole. In this living movement of integrity, the interrelationships of individual components change, and these components themselves change. But these changes are secondary and tertiary compared to the changes of the whole personality. They arise as a result of a separate living movement of the personality and contribute to the subsequent holistic movements. This unique ability of the personality as a whole to be reflected in its every

single feature applies not only to mental features. And that is why we easily recognize a person, even by his physical features, since these are the features of this specific personality and contain all of him in a mysterious way. To make sure that this is so, let's listen to what the wonderful Russian philosopher O.F.Losev says about this: "When you observe a well-known facial expression of a person you have known for a long time, you definitely see more than just the appearance of the face, as something independent, not just like you say, for example, about geometric shapes. You see here necessarily something internal – but in such a way that it is given only through the external and this does not at all interfere with the immediacy of such contemplation. Therefore, personality is always a manifestation... The personality of a person is inconceivable without his body, of course, the body through which the soul can be seen... And how else can I know someone else's soul, if not through his body... The body is always a manifestation of the soul, therefore, in some sense, the soul itself... We can only judge the soul by the body" [156, 75]. Further, the philosopher just as vividly, simply and convincingly proves the identification of the entire personality in facial expressions, intonation, and movement: "I sometimes find it scary to look at the face of a new person and it is terrifying to look into his handwriting: his fate, past and future, rises completely, inexorably and inevitable" [156,175].

Thus, the integrity of the individual specifically covers all structural and dynamic manifestations of human life. It is determined not by the sum of individual components, but by the integrated unity of the three origins of a person's existence – biological, social and spiritual. This complex operational integration determines the fact that stating integrity as an attributive feature of a personality is insufficient for its real understanding. Yes, a person is whole, but each individual person has his own wholeness, in some ways similar to others, and in some ways fundamentally different. This is how another fundamental feature of the personality comes to light – its uniqueness (individual uniqueness). Some psychologists consider the problem of uniqueness in the context of the contradictory unity of the typical and the individual in the personality. In fact, this contradiction is somewhat artificially complicated. It is typical that before us is a person (simply speaking, it corresponds to the given definition), that it has all the listed fundamental features and all constituent parts. What is the uniqueness

of the individual? What is its nature? The well-known personologist H. Allport noted that "the outstanding property of a person is his individuality. Each person is a unique creation of the forces of nature. There has never been and never will be someone exactly like her" [210, 217]. His definition of personality is a reflection of the fact that for the author the phenomenon of uniqueness is central.

The uniqueness of the integral structure of each person's personality is due to two main factors: firstly, the peculiarity of the dynamic interaction of the three main sources of personality (biological, social, spiritual), and secondly, the constant self-movement, self-development of the personality, in the process of which the individual pattern of personal manifestations, acquiring an increasingly distinctive and complete form. And, meanwhile, the personality always remains unfinished, open to new changes. Incompleteness is an important parameter of the personality, which is inherent to it equally both at the beginning of the life path and at its final stage.

Let's consider the mentioned factors. What is the peculiarity of the interaction of the three sources (three real principles) of the personality? This problem is usually considered as a ratio of biological and social in the personality and its development. The partiality and artificiality of such consideration is now obvious, but one should know how it was decided.

Some scientists believed that the main factor in the existence and development of personality is the factor of biological heredity (biological, biogenetic concepts). Based on these beliefs, they developed their views on the existence and psychological structure of the individual. This is how the theory of recapitulation arose (St. Hall, Hutchinson, etc.), within which it is believed that the child who was born, in its development, gradually recreates all stages of the historical development of mankind: the period of cattle breeding, agriculture, trade and industrial era. Only after that she enters modern life. Overcoming a certain period of his development, the child lives, recreating a certain historical period. This is manifested in her inclinations, interests, aspirations and actions.

In "maid psychology" (V.McDougall), in psychoanalysis (Z.Freud), personality, let's recall, is interpreted as an ensemble of irrational unconscious biological drives. Behaviorism generally "removes" the

problem of personality, which has no place in the mechanistic "stimulus-reaction" scheme. With the exception of St. Hall's theories and J. Watson's behaviorism, the biogenetic direction, in general, correctly emphasizes the great importance of biological determinants for the individual. On the other hand, these theories either completely exclude the influence of social factors on the existence and development of the individual, or reduce them to negative pressure that the individual is forced to overcome throughout his life (Z. Freud). In this case, the specific unique nature of the individual seems to arise on the border of the opposition of biological and social factors (this is most clearly expressed in the views of V. McDougall: the instinct, which on the way to its realization meets the resistance of the social environment, turns into a feeling, that is, a purely personal quality). In fact, the interaction of social and biological determinants is not limited to opposition, it is much more complex and richer in content.

The opposite, sociogenetic, views were formed by those scientists who believed that social factors play a dominant role in the life and development of an individual. These views are expressed to the extreme in the so-called "clean slate" theory ("tabula rasa"), the essence of which is that no innate factors play a role in the formation and existence of a personality, everything is in it (configuration of integrity, typical and individual) caused only by the influence of social conditions of existence. We note again that, in general, sociogenetic theories correctly record the great importance of the social environment in relation to the life of an individual. But their one-sidedness, the idea that the social must overcome the biological, is a real weakness.

An interesting phenomenon of the study of personality psychology is that there are many modern views that do not pay attention to biological processes in their theoretical constructions (existential psychology, humanistic psychology, etc.). However, it is paradoxical that in the field of psychological practice, in which these concepts are currently achieving the greatest success, psychophysiological, in general, biological parameters of the individual are considered almost as a priority here ("organismic self" in K. Rogers).

As we can see, the impossibility of solving the riddle of the integrity and uniqueness of the individual is caused not by the fact that its biological or social basis is not taken into account, but by the fact that there is a tendency to emphasize one of the principles at the expense of

the other. In fact, the biological, social, and spiritual do not suppress each other, but interact in a complex and fruitful way, creating a unique "miracle" (O.F. Losev's term) – the human personality.

Psychology, if it wants to explain the phenomenon of personality in this world, should be neither a "natural" science nor a "social" one. She should remember that since ancient times, the word "psychology" meant "knowledge of the soul", and engage exclusively in this, without being distracted by important, but accompanying factors.

"A child is born as a purely biological being, an individual." This phrase of O. M. Leontiev fascinated psychologists, grew into a kind of reference point. But a person is born as a human child. And this means not only that it, as an organism, has all the biological prerequisites (genotype, potential and actual anatomy of internal organs, physiological processes, morphology, biochemistry), which allow, unfolding its functioning determined by the genotype, to give birth to this person even and as individuals. This is actually not enough. The unique complexity of a person's biological organization determines that immediately after the completion of the morphophysiological processes of organism formation, the individual as a system falls into a special internal state. This is a state of readiness to be a person. The complexity and nuance of connections in the body turns out to be surprisingly strong and plastic. So much so that even individual morphological or even psychosensory anomalies fundamentally do not block an individual's path to personality (bright works and experience of domestic scientists Meshcheryakov and Sokolyansky have proven that even deaf-blind children can become full-fledged individuals under the condition of specialized training). This mysterious, but also obligatory state for a person is what we call spirituality: it is the beginning of the inner world of the individual (consciousness).

That is why he is unique and integral even before birth, this individual is endowed with spirituality (a state of readiness for a personal way of existence). At the same time, personality is not determined only biologically. It should not be discounted that the biological in itself is the product, result and embodiment of human activity of two loving social beings – personalities. So we can talk, in general, about the social (and spiritual!) nature of the biological basis of the personality... And about the endless flow of transition of these

attributive determinants of human existence – biological, social, spiritual.

At the same time, a person's ability to learn, that is, to assimilate and appropriate cultural and historical experience, is just as important, although fundamentally different in nature, an attribute of the individual's existence. So the antinomy of biological and social is clearly far-fetched, artificial.

At the very beginning of life, indeed, the biological prevails in terms of motivation – the activity of a newborn child is determined in many ways by the action of instinctive motivational factors, and in this Z. Freud is certainly right. But already here, at the very beginning, these instinctive intentions act not simply, but complexly, indirectly through the specific state of the organism's system as the germ of the inner world. Z. Freud did not know this, did not think of it, and that is why his theory is the concept of a neurotic personality, according to L. S. Vygotsky's successful definition. Psychology does not know very much about exactly how instinctive needs are mediated by a specific spiritual state of the body system, and what this state is. But one thing is clear – this mediation opens the human child to a very special encounter with the social environment. The meeting is very different from the similar contact of higher animals, and it is not only about the absence or underdevelopment of certain morphophysiological features (just remember the experiments with deaf-blind children).

The social world is not at all opposed to a person, as some theorists understand it. He envelops and invites. S. L. Rubinstein very carefully noted at one time that a person not only opposes the world, he is also inside it, enveloped by it. And in such an existence, she is an integral part of this world. Existential psychology "grabs" this in a very emphatic way: for it, personality is "the existence of a person in the world." Although the following thesis regarding the "abandonment" of a person in the world was rightly criticized by Rubinstein: a person is not abandoned in the world, he is a part of it, a part that fundamentally reflects the entire world, including the one that is not currently given. Such a person becomes due to the meeting of the human individual with the social world. The latter exists in three main forms – other people, relationships between people and cultural objects as a special form of objectification – the embodiment of the inner world (spirituality) of other people. Activity (primarily biological at the beginning), mediated by the

spiritual state, forces a person to reveal himself and at the same time to appropriate the social environment, transforming it into his ideal (exteriorization – interiorization). This is how the original complex unity (organism – state), which exists as a potential (what can happen), acquires clarity and expressiveness: the real inner world of a person emerges – his self. This is a conscious world of thoughts and desires, aspirations, values, dreams. This is a personality. And in it there is no separate biological, separate social, separate spiritual. It is integral and unique. On the contrary, now already "her" biology (body) is separated ("I am not a body, but I have a body"), as the ideal is separated (I am not a dream and not a desire, but I have dreams and desires).

However, the emergence of the ideal does not mean the termination of the "relationship" between it and the material (body). A new complex form of mutual relations is emerging – pairing. The (biological) body, in addition to being an attribute (carrier) of the personality, also leaves a significant amount of independence – it continues to exist according to the laws of nature (biology). It is relatively independent, since its contact with the ideal is a necessity and a form of existence: it changes the ideal, but is itself changed under the influence of the latter. The same is observed from the side of the ideal. Connection is a contradictory, internally conflicting unity of two independent and self-sufficient principles, which, however, cannot exist without each other. Therefore, the existence of an individual is a real drama, as L.S. Vygotsky successfully expressed. It is this complex of material, biological and ideal that determines the integrity and uniqueness of the individual. Together, these two central properties give rise to a specific thing – a form of personality. Traditionally, in psychology, formation is understood as a set of means of social influence on an individual with the aim of creating a system of certain socially positive properties and traits in him. However, the concept of formation cannot be exhausted by this understanding. L.I. Antsiferova notes that formation "means the process of creating, under the influence of various factors, a special type of relationship within the integral psychological organization of the individual" [16,5]. Personality, developing, acquires a certain form – a way of organization. The form covers both the inner world of the individual and the system of its external manifestations. The form itself is a direct manifestation of the integrity and uniqueness of the individual: it provides plastic and flexible stability of the individual,

thanks to the dynamics of relationships between the units of the structure. Since the form is a manifestation, it is by it that we get to know this specific personality. Formation is a process that is not limited by time (it is limited only by the physical death of an individual, although unknown aspects, traits, and properties can be discovered in his personality for a long time after it; personality can continue to be formed even after the death of the body). The constant, continuous development of the form is a way of existence of the individual.

It is possible to distinguish the following levels of personality development (as "volumetric", "designed as a whole"):

The next fundamental quality of the individual is his activity. In domestic psychology, activity is considered as the antithesis of reactivity (reaction – action/behavior/ in response to irritation). Of course, the principle of reactive behavior, in this sense, is preserved in a person throughout his life, if only because the body operates according to this principle. (Recall that the reactivity of behavior is the leading principle of behaviorist ideas). But personality differs precisely in that, along with reactive, active behavior becomes predominant, that is, behavior motivated by one's own conscious goals and motives. This feature is noted in many theoretical representations. Thus, Z. Freud talks about the "reality principle" in behavior contrary to the "pleasure principle". In the latter case, we mean behavior that arises in response to an instinctive need, when neither external nor internal circumstances are taken into account (L.S. Vygotsky aptly calls such behavior "behavior bypassing the personality"). Behavior according to the "principle of reality" is conscious and considered, it is behavior according to the intention of the Ego. A. Adler [4], in order to emphasize the individual's ability to determine his own behavior, uses the term "creative self". Each person, according to Adler, can perform various actions under the influence of external or internal factors, including such as stereotypes and habits (reactivity), but not only... Personality differs in that it has a special instance – "creative self", which in the most important moments of life is able to generate exclusively its own goals and subordinate behavioral activity only to them.

This, according to Adler, is a key feature of a real personality. In domestic psychology, the activity of the individual (in this sense) is

considered in the terminology "arbitrariness – involuntarily". An important contradiction is recorded here: on the one hand, the personality is characterized by controlled, deterministic, conditioned behavior. That is, the behavior is limited (by the goal, situation, preferences, instincts – in this case it is not essential). On the other hand, as E.V. Ilyenkov observes: "Man is characterized by free, i.e., action that is carried out consciously, coordinated only with the universal goal of the human race" [118,204]. This contradiction is solved by L. I. Bozhovych in the study of the main stages of the development of volitional actions in ontogenesis. Initially, arbitrary behavior is formed due to a "natural" need that directly prompts the child to overcome obstacles on the way to its satisfaction. According to E. Kretschmer, this is the "hypobullic stage" of the formation of arbitrariness. It is characteristic of young children and patients with disorders of higher mental functions. At the next stage of personality development, a person in the struggle against strong and oppositely directed affective tendencies begins to use intellectual action plans. She weighs, evaluates, imagines the results of an act. Eventually, a decision is made, one's own goals are set, intentions are formed. Therefore, goals and intentions (K. Levin) represent mental neoplasms that arise as a result of the meeting of affect and intellect. According to Bozhovich, this is the second stage of the development of the volitional sphere. Behavior is carried out due to the conscious regulation of a person's own motivational sphere, and the most important motive is determined through intellectual operations.

The third stage, according to L. I. Bozhovych [40], arises as a result of the internalization of the means of organizing behavior and the formation of other higher psychological systems, which carry additional motivational forces that can directly, bypassing conscious regulation, encourage a person to commit an act. At this stage, the behavior takes on the appearance of involuntary. A person, for example, can, without thinking, instantly rush to the defense of another or defend his own preferences at the risk of his life. LI Bozhovych calls this behavior "post-arbitrary". It is the result of interaction in each situation of internal personal structures, the situation itself and the system of universal human values and meanings accepted by a given person. We see here the development along the "spiral": the behavior is not regulated, but corresponds to the universal principles of humanism. Thus, the

development of free will (activity) "extends" the personality to the spiritual treasures of civilization.

An essential feature of a personality is its ability to express its own inner content. We are talking about the fundamentally creative essence of the personality and its formation.

"Personality, if it exists," O.F. Losev emphasizes, "is generally thought of as always and invariably influencing and acting" [156,145]. Expressive existence, that is, personal existence, according to Losev, is always a synthesis of two planes of being – internal and external. The external existence of a personality is its appearance, face, what is perceived by others. The internal is essential, meaningful and what is assumed. We perceive a person, but already in this act we somehow grasp and take into account what is "not visible", but which is expressed from the depths. "The term "expression" indicates a certain active direction of the internal towards the external, a certain active self-transformation of the internal into the external" [156,145]. If the personal existence is expressive, it means that the personality has internal and external sides, they are in constant dynamic mutual transitions and the internal dominates here (if the external is dominant, we will not have a personality, but a simple set of social roles, a functionary or a "screw" in front of us).

The so-called role layer of the personality structure is formed. Role behavior, for example, professional, can be quite strong and rigid, stifling expressiveness. Then the personality depersonalizes, involutes. Development consists in the fact that expressiveness "passes" through the layer of social roles and personality, its essence is reflected in behavior and in the products of activity. The development of expression – the embodiment of personality is an acute pedagogical problem. As O. S. Arsenyev convincingly showed [19], in the pedagogical process, the goals of creative development (expression, objectification) and the traditional tasks of teaching and upbringing are antinomic. The pedagogical system, as a reflection of the state system, aims, first of all, to adapt children to the existing social conditions of life. This happens due to suppression of expressiveness (a layer of social roles suppresses expressiveness). This achieves the child's organic adaptation to social reality, but at the same time blocks creativity. Solving this dilemma, developing the creativity of children and adults remains a global problem of modern world education.

The issue of spheres of personal expression is serious. A person of the modern world can embody himself in the production sphere, artistic or scientific creativity, in the communication system. The issue of personal choice of sphere of self-realization is also a problem of education and upbringing. In theoretical psychology, there is an original hypothesis of V.V. Davydov [91] about the connective development of different aspects of human consciousness. According to this hypothesis, the subject's choice of the sphere of his realization (embodiment) is determined by a special psychological mechanism, which consists in the ability of the individual to choose the subject of his own activity. For example, when perceiving a piece of music (an act, of course, is creative), various "essential forces" of a personality can be expressed, depending on the subject of which activity the subject of perception makes the piece of music: educational (when he learns something on a given standard), cognitive (if perceived by, say, an art critic), moral (if the subject of perception is the educational potential of the work), utilitarian (if perception occurs solely for entertainment and recreation). Davydov's hypothesis [91], as well as the complementary concept of heterogeneity of mental processes by P. Tulviste [275], are definitely prognostic and interesting. But it should be recognized that even under the condition of their acceptance, the question of the reasons for such objectification (embodiment) remains. Here it is by no means limited to education, but one should also take into account the actual organismic (individual-typological) features of a person, because his inclination to a certain activity is actually largely determined by them.

The next essential feature of the personality is its fundamental incompleteness, openness.

M.M. Bakhtin once wrote: "... it is impossible to turn a living person into a voiceless object of completed knowledge in absentia. There is always something in a person that only he himself can discover in a free act of self-awareness and speech, which is not amenable to external absent-minded determination" [26, 255]. We are talking about the incompleteness of the "inner" personality of a person.

In a state of real personal activity, "on the threshold" of a real life act, the personality is always unpredictable due to the fact that no one (including herself) knows the real possibilities, depths ("peaks", as L.S. Vygotsky) of a personal nature. Dostoevsky renounces psychology for a reason: his modern (and current) scientific psychology is only on the

way to truly knowing the meaningful foundations of personality. The same spirituality, which in the form of a potential state initially determines the personality as a possibility, then, throughout life, strengthens and develops, raising the unknown layers of nature and making a person truly incomprehensible and infinite in his formation, which never ends. Incompleteness is, although unrecognized, a very important feature of the personality, which is absolutely necessary to take into account.

The ability to self-regulate behavior is another essential feature of personality. It is known that for quite a long time in ontogenetic development, the balance of psychological processes is achieved thanks to the unconscious mechanisms of the so-called basal emotional regulation. These mechanisms work regardless of a person's desire, and the meaning of their work is to ensure a psychologically comfortable and stable state of the inner world. They act throughout a person's life, but with the complication of the life situation (which is a direct consequence of development and socialization), their effect turns out to be insufficient - living conditions become too complex and ambiguous. Therefore, fundamentally new mechanisms are formed in the individual, which are consciously controlled by the person himself. The first known is the mechanism of volitional regulation of behavior. In the situation of the struggle of different, and often opposing, motives, volitional effort ensures a choice and a conflict-free further life movement. The emergence of such a mechanism is a real and significant personal asset. But it turns out that it only partially alleviates the state of uncertainty and confrontation. Experiments have proven that the internal conflict of motives does not stop completely after a willful action, and a state of psychological comfort, as a rule, does not arise (the theory of cognitive dissonance describes this very vividly). Tension and internal conflict accompany the operation of this mechanism all the time. Why, in this case, there are many situations when the tension really subsides and the personality turns out to be self-regulated. Indeed, such situations are the majority, because otherwise we would all be neurotic. And this is possible because self-regulation is carried out by completely different, complex and secret mechanisms. Some of them were investigated by B.V. Zeigarnik [108]. These mechanisms are based on a special experience, which the author understands as an active activity (living) to generate new life meanings. Involvement of

additional senses occurs due to the expansion of awareness and the discovery of new contexts of activity. This does not lead to the aggravation and suppression of the conflict, but to the harmonization of the sphere of intentions. According to Zeigarnik, the mechanism operating in this case is, according to Zeigarnik, "reflexive alienation of the negative meaning and inclusion of the action in a wider semantic context" [108,124]. So, we see that the process of self-regulation involves not just a willful effort, but the restructuring of meaning formations, the condition of which is their awareness. New meanings are generated only in the process of special experiences. It can be seen how at this point the three lines of personality formation that we identified in the previous analysis (arbitrariness, integration, experience) intersect in a unique way. As a result, what happens is what is called the mechanism of semantic linking, when an internal connection with the value sphere of the individual is established and the neutral to this content is transformed into an emotionally charged meaning. The result of this work is the emergence of new intentions and the harmonization of the inner world of the individual. B.V. Zeigarnik considers the most important conditions for the action of the mechanism of semantic linking to be "developed imagination, possession of a broad time perspective, the presence of a hierarchical semantic sphere" [108,128]. Thus, this mechanism can exist only in an integrated, mature personality, because in this form the process of self-regulation is purely individual and related to the system of values and motives of this subject, his perception of the world, etc. Zeigarnik provides an excellent example of how this mechanism works, which we will reproduce here. We are talking about H. Hesse's novel "The Resort". The main character (writer) came to the resort in Baden to rest and then work fruitfully. However, his plans ran into significant obstacles, as his roommate turned out to be a too boisterous and ill-mannered Dutchman. A crowd of people constantly crowded around him. For several nights in a row, the writer simply could not sleep. Sensitive to the slightest noise, he was forced to listen to unnecessary conversations and laughter of endless guests, heavy footsteps in the morning, which destroyed his sleep. All desperate attempts to rest and work in these conditions ended in complete disappointment. In the end, the writer began to feel real hatred for his neighbor, and his life turned into a real hell. Such mechanisms of self-regulation as willpower and attempts to

give vent to negative emotions in fantasies turned out to be ineffective. Then he makes a completely paradoxical decision - to fall in love with a Dutchman. The masterly description of a rather long process of generating a new meaning and the emergence of a new type of relationship to the situation is full of drama and contains all the components of this process: the destruction of aggressive feelings and the setting of a task for their replacement, the search for value for their reconstruction and an appeal to the evangelical commandment "Love your neighbor", giving this value a concrete form through the positive emotional saturation of the image of the Dutchman with the help of professional writing tools (the Dutchman becomes the main character of a literary work created at night). The difficult creative process ended, as the author writes, "with a complete victory over the Dutchman." He no longer caused those painful experiences that prevented the writer from resting and working. So, the hero managed to cope with the situation thanks to the action of the mechanism of self-regulation - semantic linking [80]. A crowd of people constantly crowded around him. For several nights in a row, the writer simply could not sleep. Sensitive to the slightest noise, he was forced to listen to unnecessary conversations and laughter of endless guests, heavy footsteps in the morning, which destroyed his sleep. All desperate attempts to rest and work in these conditions ended in complete disappointment. In the end, the writer began to feel real hatred for his neighbor, and his life turned into a real hell. Such mechanisms of self-regulation as willpower and attempts to give vent to negative emotions in fantasies turned out to be ineffective. Then he makes a completely paradoxical decision - to fall in love with a Dutchman. The masterly description of a rather long process of generating a new meaning and the emergence of a new type of relationship to the situation is full of drama and contains all the components of this process: the destruction of aggressive feelings and the setting of a task for their replacement, the search for value for their reconstruction and an appeal to the evangelical commandment "Love your neighbor", giving this value a concrete form through the positive emotional saturation of the image of the Dutchman with the help of professional writing tools (the Dutchman becomes the main character of a literary work created at night). The difficult creative process ended, as the author writes, "with a complete victory over the Dutchman." He no longer caused those painful experiences that prevented the writer

from resting and working. So, the hero managed to cope with the situation thanks to the action of the mechanism of self-regulation - semantic linking [80]. A crowd of people constantly crowded around him. For several nights in a row, the writer simply could not sleep. Sensitive to the slightest noise, he was forced to listen to unnecessary conversations and laughter of endless guests, heavy footsteps in the morning, which destroyed his sleep. All desperate attempts to rest and work in these conditions ended in complete disappointment. In the end, the writer began to feel real hatred for his neighbor, and his life turned into a real hell. Such mechanisms of self-regulation as willpower and attempts to give vent to negative emotions in fantasies turned out to be ineffective. Then he makes a completely paradoxical decision - to fall in love with a Dutchman. The masterly description of a rather long process of generating a new meaning and the emergence of a new type of relationship to the situation is full of drama and contains all the components of this process: the destruction of aggressive feelings and the setting of a task for their replacement, the search for value for their reconstruction and an appeal to the evangelical commandment "Love your neighbor", giving this value a concrete form through the positive emotional saturation of the image of the Dutchman with the help of professional writing tools (the Dutchman becomes the main character of a literary work created at night). The difficult creative process ended, as the author writes, "with a complete victory over the Dutchman." He no longer caused those painful experiences that prevented the writer from resting and working. So, the hero managed to cope with the situation thanks to the action of the mechanism of self-regulation - semantic linking [80].

We gave this example in order to once again draw attention to the fact that the highest and most complex mechanisms of self-regulation of behavior can be carried out only by the whole personality - whole and integrated. So, it is possible to single out the following successive stages of the formation of self-regulation in the system of personality integration:

Let's repeat: previous links do not disappear in the process of formation, they become auxiliary and secondary, but continue to exist. To some extent, it would be correct to say that the predominance of certain mechanisms of self-regulation of behavior should be considered

as an indicator of the level of development of the integrative processes of the individual.

Now the problem of meaning naturally arises. At a certain stage of his development, a person encounters a new experience for him – suffering, from the feeling of inner emptiness and lack of meaning in life. This is the so-called existential vacuum. The emergence of this experience means a very positive thing for a psychologist, no wonder – a person has a desire to discover the meaning of life. V. Frankl [36] called this aspiration the fundamental motivational force of a person. We need to find meaning in literally everything – in events, in the behavior of other people, in our own experiences. There is also the concept of a higher, vital or existential meaning, with which the individual seeks to endow human life – suffering, death, love and other terminal values. V. Frankl writes: "The desire to find meaning is the primary force in human life. This meaning is unique and specific for each person and can be realized only by him; only then does it become significant that the will satisfies a person's desire for meaning" [284,154]. The discovery of meaning means the opening of the personality to the outside world. This is a very important, fundamental and critical moment of human existence: a person ceases to be only within his own self, only within everyday situational interests – he goes beyond a specific situation and becomes a person of the whole world. Here, we see, the lines of integration and mutual relations with the world intersect – the world ceases to be "opposite" to a person, and on the contrary, he finds himself inside the world, "envelops" it and is related to it.

Interesting is the correspondence discussion of V. Frankl with A. Maslow and K. Rogers regarding what is more important in life and personality development – meaning or self-actualization. V. Frankl argues that self-actualization (as a person's desire to become what he, in principle, can become) is only a moment, an aspect of a person's desire for the meaning of life, and, therefore, the central direction of personality development is the discovery of meaning. At the same time, the absolute majority of modern theorists of personality psychology adhere to the position of Maslow and Rogers, believing that self-actualization is the main line of personality development. At the same time, some attention is not paid to the fact that these terms: "self-development", "self-actualization", "self-realization", "self-realization" are rooted in orthodox Jungian psychoanalysis. And all of them are

synonyms of Jungian "individuation", because "self-actualization" in reality does not mean "actualizing oneself" at all. And what this means is to "actualize the self", that is, the real sub- and then super-conscious basis of the human personality. We have already seen that similar ideas relate to the concept of "unfolding" the personality. There are no objections – these are beautiful, pleasant and elegant theories, but, unfortunately, they are unscientific. Rather, these are philosophical and cultural constructions. In Frankl's discussion with Rogers and Maslow, everyone is wrong. After all, they are looking for the central and essential not in the object of research (personality), but in their idea of this object. But these are completely different things. If we talk about the personality that needs to be studied, that is, about a living concrete person, then for her the whole life path is central, and everything that is on it is primary, dominant and over-essential: from conflict at work to existential problems of the meaning of being. Therefore, we believe that the scientific approach to the problems of personality development must adequately reflect this process, and not invent it. It is in such a setting that it seems to us that the logic proposed here may not be so beautiful and slender, but it is closer to the real life of a person. At the same time, the significant interest in self-actualization theories cannot be silenced or ignored. It is the logic of the holistic approach that is important. After all, no one disputes the fact that, say, the process of self-actualization, or the formation of a self-concept, or the search for the meaning of life are very important moments in an individual's life. But they are just moments, and that's the whole point! One logic is to study personality development as an integral process that follows separate lines, and to see important and essential points in this process. And it is quite another thing to artificially take some moment, make it central and say that this is the whole personality, and its development is the development of only this structure, taking into account its influence on others.

4.3. Personality development

The problem of personality development and upbringing belongs to the most relevant social aspects of public life and always requires a deep scientific substantiation of the psychological essence of the factors of this process.

The American scientist E. Thorndike claims, for example, that all the spiritual qualities of a person, his consciousness, are the same gifts of nature as eyes, ears, fingers and other organs of the body. All this is hereditarily given to a person and mechanically embodied in him after his conception and birth. The American educator J. Dewey believes that a person is born even with ready-made moral qualities, feelings, and spiritual needs.

Representatives of the theory known as the "biogenetic law" (Hall, J. Baldwin, etc.) believe that a child, after being born, in its development gradually reproduces all stages of the historical development of a person: the period of pastoralism, agriculture, trade and industry. Only after that it is included in modern life. Passing through a certain period, the child lives the life of that historical period. This is manifested in her inclinations, interests, aspirations and actions. Proponents of the theory of "biogenetic law" argued for the free upbringing of children, because, in their opinion, only with such upbringing can they fully develop and be included in the life of the society in which they live.

The second direction of personality development is represented by the sociogenetic concept. According to sociogenetic theories, a child's development is determined by social conditions: the environment in which a child is born and raised determines the direction in which his development takes place. Representatives of this direction, like biogeneticists, underestimated the inner activity of the individual as a conscious subject of activity, its inherent features.

At the beginning of the 20th century, a methodological concept of personality development emerged. Pedology adhered to the theory of two factors of development: biological, or hereditary, and social, believing that these factors converge, that is, interactions do not always find proper justification in the theory, leaving the question of the driving forces of mental development open to some extent.

The theory of mental development of the individual in domestic psychology is based on the recognition that the driving forces of its development are revealed in contradictions between the needs, which are constantly changing (complicated) in human activity, and the real (those that do not meet new requirements) opportunities for their satisfaction. Overcoming contradictions in activity through mastering the appropriate means of its implementation (skills, methods, techniques, knowledge) leads to development and constitutes its

essence. Education and training play a leading role in mastering new effective ways of meeting needs. The selection, development and cultivation of needs that have social and personal value is one of the central tasks of personality formation. This process is long, takes place throughout the entire conscious life of a person and is characterized by certain features.

Each age stage of personality development (preschool, junior, middle and high school) has characteristic anatomical, physiological and psychological features and opportunities. In accordance with these features, educational work in nurseries, kindergartens and schools is planned and carried out.

Continuity in education and upbringing plays a very important role in personality formation. Based on what the child has achieved in his development at the previous stage, nurseries, kindergartens and schools prepare the child for his assimilation of social experience and knowledge at the next stage of education and upbringing. Kindergarten prepares a child for schooling, and secondary school prepares a child for higher education and work.

Age-related features of development are not something permanent, static within the limits of age, which mechanically changes to features characteristic of the next stage of development.

Higher levels are born in earlier stages, but the features of previous age stages are also revealed in later stages. In order to contribute to the timely emergence and successful development of the progressive, new in the child at all stages of its formation as a personality, it is necessary to know the age-specific features of the child's physical and spiritual development.

When managing personality development, one should take into account the fact that the features of development characteristic of a certain age do not always coincide with the passport age of the child. Some children are ahead of their age in their development, some lag behind it. Sometimes this is due to the innate anatomical and physiological features of the body, but mostly the reason for this is the social conditions of the child's life and upbringing, which contribute to its development or inhibit it. The task of the school and the teacher is to identify these reasons or to strengthen what contributes to the successful development of the child, and to eliminate what negatively affects the upbringing of his personality.

Imitation of adults by a child plays an important role in personality formation. Children imitate both positive and negative things, because they do not yet have enough experience and do not have a critical attitude towards the actions and deeds of adults. Imitation is especially evident in children of preschool age. Children of this age do not show independence in their attitude to actions, behavior, thoughts, statements of adults and mechanically repeat them. With the development of the personality in adolescence and young adulthood, with the growth of its intelligence and independence, children critically evaluate the actions and behavior of adults, borrow the better, and deny and reject the worse. However, even at an older age, they can take over the negative from adults, if the positive experience of the surrounding reality does not become dominant in their lives and a moral and ethical attitude towards the actions of others and self-control is not formed.

Preschool age is a period of preparing a child for schooling and elementary self-care. During this period of life, significant changes occur in the child's anatomical, physiological and spiritual development, thanks to which he becomes able to study at school, acquire knowledge, norms of moral behavior and perform socially useful work assignments. This is facilitated by the fact that already at preschool age, children achieve significant development of language and speech, and on its basis, the ability to reason and draw logical conclusions under the guidance of adults. An important aspect of the development of preschool children is their desire for knowledge, mastering the first norms of behavior in a team, the ability to independently carry out simple tasks of adults, serve themselves, help others, direct their actions not only to those that are directly perceived, but also to imagined objects and situations. Although emotions in preschool age are still unsettled, the will is weak, suggestibility prevails, under properly organized conditions, preschoolers show persistence and attentiveness when performing interesting work, are able to perform the simplest work assignments.

The life and activities of children of primary school age are conditioned by their educational activities. In the process of learning, they successfully develop mental processes – perception and observation, memory and attention, imagination, acquiring a purposeful, arbitrary character.

Pupils of primary school age have a deeper understanding and are able to analyze language and speech: a word is understood as a part of speech, judgments expressed as a sentence, its members are understood in a sentence. This contributes to the deepening of judgments and reasoning, the formation of logical conclusions, the assimilation of abstract mathematical and grammatical material, the formation of speech culture.

Younger schoolchildren master the rules of behavior in a team, consider their actions and behavior not only from their own position, but also from the position of the team, critically evaluate the behavior of their friends, and become demanding of them. Younger schoolchildren develop such qualities as self-control, perseverance, purposefulness, endurance, and discipline. Based on these principles, the ability to manage one's own behavior and subordinate it to school tasks is formed. Younger schoolchildren are successfully involved in work, aware of its social meaning and significance.

Middle school, or adolescence, attracts attention with its anatomical and physiological changes in the child's body, especially those associated with puberty. These changes significantly affect the mental development of the adolescent's personality, his cognitive activity and behavior, and relationships in the team.

Adolescents' cognitive activity and mental development increase, their inquisitiveness grows, and their desire to learn the unknown, to look into the future. Pupils of secondary school age clearly show a desire for independence. But this desire in the case of improper upbringing can manifest itself in distorted forms – a negative attitude to assignments, advice from teachers and parents, unmotivated actions and bravado in violation of norms of behavior. This happens when a teenager is not included in the life of the team, does not perform socially useful tasks, does not see and does not experience the results of his activities, and teachers and parents do not encourage him to do this, do not take into account the age-specific features of his development.

A teenager's impulsiveness noticeably decreases and his will becomes stronger, his interest in work increases, relationships in the team change, moral feelings and aesthetic tastes develop and become more stable. In older adolescence, the ideological orientation, worldview and self-awareness of the individual are intensively formed. Activities become more targeted and socially motivated.

The new thing in the relationship between boys and girls deserves special attention: the gender division is more clearly defined, specific in the friendship and behavior of boys and girls, they have a mutual interest. These features of the adolescent period of development require great attention to the organization of group and educational activities of adolescents, friendship and companionship, and especially sexual education.

High school, or younger youth, age is a period of deepening mental and moral development of the individual. Self-discovery and self-criticism become the center of attention of a younger young man, which with improper upbringing can acquire negative traits of self-confidence, narcissism or insecurity, lack of faith in one's own abilities. At this age, cognitive interests are clearly defined, a tendency to engage in certain scientific activities, sports, and professional inclinations are determined. But these features are not always deep and stable, if they are not directed and strengthened by the school, teachers, and experienced elders. Younger youth is the period of formation of stable friendship and companionship, in particular between boys and girls, establishment of strong-willed qualities, character traits, application of learned moral and political positions. Inherent in the high school age, the focus on the desire to realize one's ideas together with the team is an important factor in the moral and mental formation of the individual in this period.

The structure of social life, the achievements of science and technology, the wealth of information received through cinema, radio, television, books and newspapers are influenced by the development of personality. Therefore, it is not possible to be limited to purely school means of teaching and educating the younger generation.

In recent decades, there has been a noticeable acceleration, or acceleration, of children's physical and mental development. Studies have proven that maturity comes 2-3 years earlier than it did at the beginning of the 20th century. Accordingly, puberty begins earlier. At the same time, there is a discrepancy between mental development and the inability to manage oneself, which causes a violation of the norms of social behavior. Acceleration of personality development requires a significant restructuring of the educational process in terms of content, means, and organization of children's lives.

Human activity and behavior depend not only on age, but also on individual characteristics.

Individual characteristics of the personality by nature and origin are born and acquired during life. Congenital include the physical characteristics with which a child is born.

Born and acquired during life, individual characteristics change under the influence of education, but most of them have a stable character, and therefore they affect the activity and behavior of the individual.

Successful management of personality formation requires a thorough knowledge of the psychological characteristics of a child's development and its use in educational work.

4.4. Personality activity and its sources

However, human activity is fundamentally different from animal activity. In animals, it is a manifestation of the instinctive biological needs of the body, and in humans, conscious and purposeful aspirations are the driving force behind its activity.

Human activity and forms of its manifestation have developed historically and have a socially oriented character.

Regarding the source of personality activity in psychology, there were different views.

For the first time, the issue of personality activity was raised by the Austrian psychiatrist Z. Freud, the founder of the theory and practice of psychoanalysis. The main provisions of this theory justify the opinion that the source of human activity is the instinctive urges that he has from birth and which are inherited. This is the world of instincts, biological and physiological drives, unconscious impulses, the nature of which is "unknown". Fundamental to his teachings is the recognition of the priority of the biological in man. His appeal to the realm of the subconscious in the human psyche, which significantly affects his life, can be considered positive in the teaching of S. Freud. Neo-Freudians, guided by the main postulates of S. Freud about the subconscious, went in the direction of limiting sexual drives in the elucidation of the human psyche and the search for new driving forces of human behavior. Neo-Freudianism proceeds from the recognition of the decisive role of the environment and mechanisms of a social nature. In the subconscious, the place of unrealized sexual drives is occupied by the desire for power

as a result of the individual's awareness of his inferiority (A. Adler), the impossibility of achieving harmony with the social structure of society and the resulting feeling of loneliness (E. Fromm), etc.

Developing the problem of personality activity, domestic psychology starts from the recognition that the source of personality activity is its organic and spiritual needs – in food, clothing, knowledge, and work.

Human needs develop in activities together with the development of social conditions of life, production, scientific and technical progress. The very process of satisfying a need contributes to its development and reproduction of new needs, which are inevitably generated by various spheres of people's social existence and their activities. The higher the level of society's civilization, economic and spiritual development, the richer and more diverse are its needs. Motives, which are the result of the individual's awareness of his needs and are manifested in specific aspirations to their satisfaction, become internal incentives for action. A motive is a real urge that forces a person to act in a certain life situation, under certain conditions.

Common motives of human activity are interests. Need expresses necessity, and interest is always connected with personal interest in the object, with the desire to know it more, to master it. Interest can be manifested in sympathy and attachment to a person, in enthusiasm for a certain activity, literature, sports, science, etc.

Beliefs are rigid regulators of behavior. The peculiarity of beliefs is that in them knowledge appears in unity with feelings, capturing the whole personality. Conviction is where there is suffering and pangs of conscience when principles are violated in actions and deeds. The power of beliefs as motives for behavior is aptly described in a famous saying, where they are compared to bonds that a person cannot break without severing his heart. Beliefs of an individual can be manifested in various areas of his life and activity and, depending on this, can be divided into moral, intellectual, aesthetic, etc.

Beliefs become a powerful driving force when the actions that are prompted by those beliefs become habitual. K. Ushinsky called a good habit moral capital, which a person invests in his nervous system. The capital of the habit grows from use and gives a person the opportunity to more and more fruitfully use his precious power – the power of

conscious will, without wasting his consciousness and will to fight against difficulties that have already been overcome.

An important perceived motive is an ideal. Attitudes can play the role of personal motives.

The attitude towards various facts of life can be manifested in standardized judgments, uncritically learned by a person during communication with other people, in bias, in singling out what is of vital importance to him. That is why a person can see in the objects and phenomena of life what he wants to see, and not what is actually there. Settings can be positive, if they are based on trust, sympathy, approved public opinion, and negative, when they have the character of bias, non-objectivity. A special form of attitude is intragroup suggestibility as an unconscious group opinion.

The purpose of the individual's activity is always revealed in the perceived motives. An object that can satisfy the needs of an individual appears in his mind as a goal. If the individual is clearly aware of the life goal and foresees the reality of its achievement, then the perspective of the individual is revealed. The perspective makes a person's actions confident, purposeful, feeds them with energy. The lack of a life perspective or its loss can cause a state of frustration, i.e. disruption of plans, despondency, hopelessness, despair. Having fallen into such psychological discomfort, a person loses the ability to objectively assess the facts of life, shows aggressiveness, irritability. The state of frustration can be caused by an individual's overestimated self-esteem, when he shows a tendency to choose goals in life that are too difficult, impossible for him, as a result of which he fails. With adequate self-esteem, a person chooses goals that correspond to his capabilities and successfully implements them. Self-esteem can be underestimated, which is caused by a person's lack of confidence in his abilities, as a result of which he focuses on choosing too simple goals. With low self-esteem, the psychological potential of the individual is not realized, as a result of which its development slows down and related traits can be fixed.

An integrated indicator of the social value of a person's orientations is his orientation. Self-awareness plays an important role in shaping the orientation of an individual. Self-awareness by an individual of the changes and processes occurring in it contributes to deeper self-

knowledge, objectivity, criticality of their assessment. Such manifestations as self-love, self-praise, modesty, self-deprecation, sense of self-worth, arrogance, etc., are connected with the emotional realm of self-awareness. In them, in the form of certain experiences, a person's attitude towards himself compared to other people is reflected. Such manifestations of self-awareness as self-restraint, self-control, self-control, self-discipline, initiative are related to the volitional aspect of a person's mental activity. The main forms of self-awareness of an individual are closely related to all aspects of his life and activities.

Personality as a social being is formed in the process of learning, upbringing, work and communication with other people. At the same time, innate features play an important role in the formation of a personality. External influences act on a person through his internal, innate, previously acquired. Therefore, in order to get to know a person, his psychology, it is necessary to find out the specific conditions of his life, education, work, features of the environment and interaction with it.

4.5. The latest approach to the problem of personality structure

The original methodology of genetic psychology determines the main lines of research in personality psychology and the central questions: "How does personality arise?", "What are the psychological mechanisms of its existence and development?". The answer to the first question is that the personality is created, and therefore it is – a work. This is a very special work, which is in its own formation all its life. He continues to create himself, complicate (or simplify), self-realize, improve. It is self-existent. And in this sense, the individual is his own author. But the real miracle is that the individual is not only the author of himself – as a work: he is potentially and actually the author of another, new personality – the human child. This absolutely unique act of co-creation between two personalities, two loving people, is the real beginning...

"Personality begins with love" – this thesis contradicts the original position of domestic psychology regarding the ontogenesis of personality, which was embodied in the title of O. M. Leontiev's part "The beginning of personality is a concession" and gave impetus to the whole direction of Ukrainian "psychology of the act". An act, if taken in

the understanding of O. M. Leontiev [149] and V. A. Roments [249], can never be the "principle of personality", since in order to carry it out, one must already be a person: to be aware of one's own "I", to realize "IOther" and somehow relate to him.

"Without love," says P. Florensky, "personality crumbles into small psychological elements and moments." Love is the connecting link of the personality" [282, p. 173]. O.F.Losev noted that the main aspirations of an individual are absolute self-affirmation, inner freedom, integrity and harmony. "She wants to exist as the gods exist, who contemplate the infinite world and the intelligent silence of their independent, bright existence" [156, p. 155]. And this existence becomes possible in love. Losev continues: "And so, when the sensual and motley-random history of an individual, immersed in a relative, half-dark, powerless and painful existence, suddenly comes to an event in which this initial and rooted, bright destiny of the individual is revealed, the lost universal state is remembered and thus the tiresome emptiness and the motley noise of empiricism are overcome – then this means that a miracle is being created [156, p. 155]. Love, its experiences and its aspirations are this true miracle. R. May notes that love carries immeasurable psychological energy. And this is the most powerful force for influencing and transforming a person [187, p. 81].

The creative nature of the individual and its existence as coexistence was emphasized by M. Berdyaev. He believed that personality is not a substance, but is a creative act and is unchanged in the process of change. In an individual, the whole precedes the parts and is not something self-exhaustive, self-centered: it turns into something other than itself, into another "you" and continues in this way, realizing the universal content, which is a concrete life [27].

Modern psychology, surprisingly, pays little attention to the study of love, instead focusing on the study of destructive needs and human qualities, although H. Allport emphasizes that "affiliative desires are the necessary basis of human life" [210, p. 117]. Psychology turns out to be simply not ready to study phenomena of such a level of complexity and comprehensiveness as love, but this does not mean that these phenomena should not be studied.

In love E. Fromm [292] sees the most radical and, in fact, the only proper exit of a person from destructiveness, alienation and isolation. But what is love? Let's turn to E. Fromm's thoughts. Love, he writes, is

"a passionate desire for unity with another person, stronger than all other human desires. This is the most important passion, it is the force that unites the family, clan, society, the entire human race into a single unit" [292, p. 109]. In fact, two opposite forms of love are distinguished – passive ("merging love") and active. The latter is actually what we call love as such. Fromm writes: "In contrast to a symbiotic relationship, mature (active) love is a relationship that involves preserving the integrity of a person, his individuality" [292, p. 111]. This is a very important moment for us – the status of individuals in love relationships. It was analyzed quite thoroughly by J.-P. Sartre, to whom we will turn a little later.

"The most general definition of the active nature of love," notes Fromm, "can be formulated as follows: to love means first of all to give, not to receive" [292, p. 113]. Here is a central point and a rather subtle nuance. This "giving" does not at all mean "giving away" in the sense of sacrificing, being left without something, suffering losses, etc. Only people who are focused exclusively on receiving understand what "giving" means. Such an orientation denies love, reduces it to an exchange: "gave – received." Fromm means something completely different: for an individual who is productive, whole and open, "giving" means showing one's own strength, giving another person oneself, one's world and ... becoming even more enriched, complete, and strong at the same time.

It should be noted that this nuance is very often not taken into account, and it is precisely because of this that E. Fromm's theoretical views are criticized and understood somewhat simplistically and vulgarly. It turns out that the reader himself should overcome the consumer-commodity orientation in order to understand. An immature, dependent, unfree, simplified person cannot love by giving: after all, only a rich person with a diverse and complex inner world can "give". In love, a person not only gives, but also "gives" the most precious thing he has: he gives life. And this is not a metaphor. To love means to give one's life and give birth to a new life. "When two people give, something is born, and then both are grateful for the new life that was born for both of them" [292, p. 115]. Very often this phrase is perceived quite abstractly. We want to take a risk and point out that it is literal when it comes to sexual, erotic love. We give a loved one our body, our soul, ourselves. She gratefully accepts this gift and gives us her life. And this

meeting of two devoted, gifted existences should end with the appearance of a new life (not in the sense of a new color of our life together with her. But in the direct sense – a new life, a new person should be born). And that is why love is creativity. Therefore, the logical and productive end of erotic love should be the appearance of a new being, a work in which love is originally embodied as a need to live and continue. That is why, for example, O.F.Losev calls personality a miracle.

But E. Fromm rightly believes that not every person can love like that. Such love "presupposes that a person should form a predominant attitude towards fruitful activity, overcoming addiction, narcissism, tendency to accumulate and to manipulate others" [292, p. 115]. A person must believe in his own strength, be self-sufficient in achieving his goal. And in addition to the fact that to love always means to give, "it always also means to care, bear responsibility, respect and know... these are the most important features of love inherent in all its forms" [292, p. 116]. Now it is clear that only a mature, open and productive personality is capable of truly loving. But why then do we consider love to be the beginning of personality? We can strengthen the thesis: love is not just the beginning of personality, it exists before personality, and it generates (determines, determines) the process of its creation (as a miracle).

Love is, if we use the terms of A. Maslow, one of the forms and directions of self-actualization of the individual. That is, in the experience of love, a person becomes "what he can become." Here we are talking about the so-called essential love (B-love), which is fundamentally different from deficient love (D-love). In general, these two types of love identified by Maslow are similar classification of E. Fromm. However, A. Maslow examines an interesting phenomenon that is very important for our research. It is about "peak experiences". Full disclosure and exaltation, the peak of creative activity, contemplativeness, frankness and tension of the emotional state – this is how you can describe this phenomenon. "Peak experiences" are inherent exclusively to physical love, and here are their key characteristics. First, the perception of the object of love changes (in our case, we will be talking about a loved one, since we are interested in love for a person of the opposite sex). "During love experiences," A. Maslow notes, "it is quite possible to "dissolve" in the object so much that our "I" literally disappears" [181, p. 111]. We can even talk about the

identification of the perceiver and the object of perception, about their complete connection in a new and higher integrity, in an extremely complex organized metasystem. And then a new quality is born – a new being. Secondly, in the "peak experience" of love, the self-perception of the individual changes. From E. Fromm's point of view, there is an active (and "giving"!) penetration into another being. The urge to know is satisfied through connection. "In connection, I know you, I know myself... I know the secret of all living things in the only way possible for a person – by experiencing this connection, and not by reasoning" [290, p. 119]. So, in love, I get to know (discover) and – release, allow a completely different me into an active life, one that was unknown to me before this experience. And this is the release of the vital energy of my original inexhaustible need. A. Maslow writes about this: "During peak experiences, people are most identical to themselves, closest to their true "I" and most unique" [181, p. 139].

Thirdlyyes, the peak experience of love is what in modern psychology has received the name "flow experience". A person is picked up and captured by the flow of life itself, goals, aspirations, properties and predictions disappear as such – everything obeys the current, the movement, which in itself becomes the most important, the most essential. It reveals the meaning of existence, which becomes easily and directly perceived. A person does not control the flow, does not control himself in it – he exists passionately. We could say that the flow, the flow of the peak love experience represents that rare moment in a person's life when the initial need really declares itself, when it becomes stronger than the personality, stronger than everything in this world, when it – leads

The fourth characteristic of a peak experience emphasizes its creative nature: this experience is insight in its pure, so to speak, form. The world with its constants and conventions literally disappears, as lovers in a joint peak experience create for a short time their own special, unique world, in which not only social, but also natural laws do not operate, instead, their unique laws of love operate. They create a new world, a new self, a new life. And as the most intense, open and frank point of peak experience, a new being arises – a human child.

...We need to take a step back and discuss two things that are very important for our readers to understand us correctly. The first of them is partial, and it concerns the need for a clear distinction between the

peak experience of love and the experience of orgasm (since we are talking about erotic love). A. Maslow strongly insisted on this distinction. These two experiences are united by their belonging to sexual contact. But this association is very external. About this type of association, at one time, L.S. Vygotsky said that there are behavioral manifestations or inner feelings that seem very similar, but in terms of mechanisms of occurrence and psychological content, they are very "far" from each other, since they are part of composition of fundamentally different cross-functional psychological systems. By its origin, peak experience is a special form of continuation of the flow of material love. Let's emphasize – continuation and strengthening, not completion and discharge of tension. (E. Fromm, criticizing Z. Freud's theory of erotic love, quite rightly noted that the essential need for love is connection, not tension relief, as Freud believed [286]). Primordial, biosocial by its nature, need gives birth to love, as the realization of two needs rooted in it – in complete connection with a loved one and the birth of its continuation – a new being. These are dominant, "meaning-making" motives, and they are not "deficit", that is, they do not disappear during their implementation. The latter, by the way, is also impossible, because the process of penetrating another, comprehending it, the process of creating a new life is, in fact, endless (in any case, it is much longer than the life of one person). It is the moment of discrete satisfaction of these two motives in the peak experience that conditions it, colors it, floods it. And if we are talking about sexual intercourse as an "operational aspect" of this experience, then the release of tension really causes an additional feeling of psychophysiological pleasure, fully harmonizing and, at this stage, completing the experience. This "additionality" of orgasm is, in fact, very well noticed by people who truly love each other, i.e., physically (A. Maslow) or actively (E. Fromm). The results of surveys conducted by A. Maslow [181] and some of our empirical data confirm this.

In a person's life, however, it can happen that the orgasm itself, as a release of tension and pleasure from it, can "create its own interfunctional system", taking a leading place in it. But this is not about love at all, and we will still have the opportunity to talk about it.

The second point concerns the style of presenting the material. In the so-called "properly scientific" psychology, it has become customary to criticize the texts of A. Maslow and E. Fromm for their metaphorical

nature, for the lack of rigid paradigmatic logic, for the impossibility of "scientifically" verifying the facts they write about. Giving the report that our exposition is very similar in style to the style of the specified authors, we must note the following. A simple reduction of complex meta-phenomena to separate separate elements using mathematical logic does not mean their better understanding and comprehension at all. The great Goethe said about such studies through the mouth of Mephistopheles:

Striving to eavesdrop on life in everything,
Rushing the apparitions will demoralize,
I forgot that if they break it
Enlivening connection,
Then there is nothing more to listen to. [80].

If modern psychology considers as objective knowledge what arises as a result of generalization of empirical facts, which, in turn, represent certain human responses to artificial stimuli created by the researcher, then certainly the works of Maslow, Fromm and others like them are not relate to such knowledge. Of course, it is not only inappropriate, but also in no case should such phenomena as personality or love be studied in the indicated way.

But how to be? In order to maintain your belonging to "real science", you should... replace the terms. Yes, those ordinary and clear, beautiful words that describe these phenomena and ideas related to them should be replaced with dry, "scientific" words: "love as a correlate of "something out there" – this wording is more to my liking. But if we recognize the above-mentioned styles as non-scientific (that is, phenomenological, metaphorical, mythical), and the last type as scientific, then what do we have? O.F. Losev said about it as follows: "When "science" destroys a myth, it only means that one mythology is fighting another mythology" [156, p. 33]. In fact, such a "science" really only needs its own hypothesis – that's all, that is, it is a complete mythologem of the researcher, which he will "dress" in a certain area of reality and give new abstract terms.

This problem was interestingly and vividly highlighted by J.-P. Sartre. In his opinion, if you consider a person "as one who can be analyzed and "brought" to primary data, determine his motives (or desires), see him as a subject as a property of an object", then it is easy to conclude by developing a fascinating system of substances, which we

can later call mechanisms, dynamisms, patterns, etc. But a dilemma arises, since human existence has become "something like amorphous clay, which can accept desire passively, or can be reduced to a simple connection of all these unsurpassed drives ortrends In any case, the person disappears. We can no longer find the person with whom this or that experience took place" [258, p. 143].

We are trying to depart from the tradition, which has been formed almost since the Middle Ages, and try to conduct an analysis not according to postulates, but according to criteria adequate to the object of research. Genetic modeling analysis allows us to isolate the original meaningful unit of the individual as an open system that develops itself, creating itself. We established that such a unit is need as the universal energy force of life itself, which represents the contradictory unity of the biological and social. Genetic-modeling analysis allows you to connect ontogenesis and creativity: it turns out that the real force that creates a personality and determines its existence is love as an objectified need. Revealing the specifics of this extremely complex process cannot take place in the logic and terminology of reduction, because then we lose the essence of the phenomenon. On the other hand, the principle of reflexive relativism means that the knowledge obtained about this level of complexity of the system can never be unambiguous and final.

Now we can continue our analysis. The study of peak experiences can lead to the formation of the idea of the presence of peculiar "flares" within the boundaries of material love, sensory aggravations, which are replaced by a calmer course of life of people nearby. Such logic is possible if you look at the phenomenon from the perspective of human behavior and experiences and if you take into account that psychophysiologicaly, the "flare" must always pass, that it is very "energy-intensive" and there must be a rest and replenishment of the spent energy so that there is no breakdown. However, all this is just an idea. The bio- and psychoenergetics of love remain unknown, and nothing prevents us from talking about its complex and mutually enriching nature, because "giving" means, at the same time, "receiving". If you try to look at this process from the point of view of... love itself, it turns out that the discreteness of the flow, in fact, does not correspond to its nature. This is the ontological state of the individual's existence, the state as a special coloring of life and those related to itexperiences, and the state as a constant flow of this life. This, in other words (using

the terminology of A. Maslow), is a constant and fluid peak experience as a sign of existence. Another thing is that emotional outbursts and calming down are possible within this flow – because only "within this flow" – the ordinary life of an ordinary person continues.

The psychological features (parameters) of essential love, which E. Fromm, A. Maslow, and other researchers of this phenomenon point to, actually do not tell much about the essence of this human miracle. Heuristics here will be determined by the coverage in the study of dynamics – the emergence, existence, development of love.

Yes, a fundamentally original way of knowing each other by people, if they love, has already been determined. This phenomenon attracts the attention of many scientists. Thus, R. May notes: "An encounter with the existence of another person (love) contains a force that can cause a strong shock to a person and cause a surge of anxiety in him. But it can also be a source of joy" [187, p. 143]. It can be noted that even the etymological connection between the words "to know" and "to love" is very close. In ancient Greek and ancient Hebrew, the verb "to know" simultaneously meant "to have sexual intercourse." Serious material in this regard can be found in religious texts: "Abraham knew his wife and she conceived"... there are many such expressions in biblical texts.

All this can mean that to truly know another person, as well as to love him, means community, creative and dialogic participation in the life of this person. Existential psychologist L. Binswanger calls this a "dual modus": "to be able to understand another, a person must be ready to love him as a last resort" [32, p. 143]. Why does the knowledge of another in love acquire new qualities and become limitless in terms of the degree of penetration into the mystery of the personality (that is, it becomes adequate to its actual infinity)? Let's pay attention to the following fact: in a loved one, we see features that we did not notice before, about the presence of which neither she herself nor those around her know. What is the reason for this? We are told that it is we who endow our beloved with beautiful features, create them under the influence of feelings and desires. But is it necessarily so? Perhaps this is the ontological state that is caused by love, and which is, in fact, the most justified and most naturally appropriate state of a person (it was created for him!); this state for the first time and for the last time, finally reveals us to each other, reveals our very essence, our very being. We do not

create it, but see it with eyes not clouded by thirst, but enlightened by the pure necessity of existence.

How does this phenomenon occur? The human being, in fact, has been preparing for it for a long time. Potentially, it turns out to be prepared for this "enlightenment" from the very beginning of existence, still being a small cell, which, at the same time, is the work of two lovers and the objectification of their need for existence, their love. In this cell there are not just complex chemical substances and biostructures, it is the embodiment of the age-old experience of human existence as a social being, that is, one who, by definition, is a work and creator of love and life. (The fact that we do not yet know in what concrete forms this imprint-incarnation exists does not at all mean its absence, but only means that they must be sought and found).

That is, love is already in this being, which has only just begun. The entire period of prenatal development – the experience of love-openness, protection, comfort and growth (of course, no one here is talking about consciousness and the higher psyche in general – it is about what happens in reality). The child in the prenatal phase is fully exposed and fully protected by the love of the mother and father, whose love protects the mother and, indirectly, her fetus, their joint creation. Not to talk about what positions you are in, but experience is gained, and it is love. This is how the love of generations, embodied in a child at the level of "social heredity" (P.P. Blonsky's expression), and love-reality, as a special construction of biosocial relations, are connected. An essential stage is the act of birth itself. Psychology knows very little about this, except that the child's "transition" into the world is traumatic (although this is quite problematic: it must be so, we think, because the environment is already very different, well, of course, and the devices can record appropriate autonomic reactions. But that's not psychology).

Meanwhile, special research is not needed to record the huge psychological component of this act. We cannot discuss this problem in detail here, but we know the impressions of many women who gave birth to a child expected, desired and conceived in love. Yes, they talk about fear and pain, but not only that. They talk about frankness and openness – more disclosure, more naturalness and trustworthiness to the world – up to the literal feeling of "openness" in it – they did not know. They note the aggravation of love for the husband and boundless love, care, fear for the life of the child and their own. It seems to us that

this act is a mandatory component of human love, and it should be studied in psychology as an essential stage of the ontogenesis and transformation of needs. Psychoanalytical and related directions understand the importance of this phenomenon and only thanks to them we have at least some scientific information. But psychoanalysis is a rather narrowly specific, partial and, as has been repeatedly noted, not focused on attributive personality traits.

One way or another, the presence of a human being already at the moment of birth of the experience of existence in love, disclosure in it, must be recognized. We would like to emphasize once again that we are very far from being metaphorical. We are simply recording the facts. Another thing is that the essence of these phenomena requires serious research, which is possible in the conditions of a new synthesis of natural, social and psychological sciences, which would be based not on psychoanalysis, but on the positions of genetic modeling. In particular, from these positions it is possible, in our opinion, to evaluate and fully understand the phenomenon of children's sexuality, which Z. Freud brilliantly noticed, but which he interpreted very narrowly and primitively.

A child begins to experience actual love in the first year after birth. In a correspondence discussion with J. Piaget, L. S. Vygotsky absolutely correctly defended the thesis that early ontogenesis (traditionally it was about the first months after physical birth) is the period when social factors are of maximum importance for the child's development (the child simply cannot survive as a human being without a social environment). But Vygotsky did not say that this is the main thing.

In our opinion, the determining factor in this period of life is love – love between parents, and the love of a mother for her child. Intonations, gentle touches to the most fragile, most secret places, coziness, satisfaction of deficient needs and – development, joyful discoveries, new impressions through beloved people... All this is an important phase of the formation of love and, at the same time, the acquisition of its experience. When E. Erikson emphasizes the importance of this period of ontogenesis, saying that a basic trust (or mistrust) in the world is formed here, he is absolutely right, regardless of his initial theoretical and ideological positions. Now it is impossible to assert, since this has not been studied either, but it is quite logical to imagine that for a child with a basic mistrust of the world, material love will be "closed", or it

will take inhuman efforts of this person and, most importantly, of the person who will love her, so that she took place, was fulfilled in this being as well.

We see that personality really begins with love. And here a completely valid question may arise about what will happen to a person if he does not start in love, grows up without parents and does not know love in the early stages of development? The answer to this question is in many ways decisive for the affirmation of our concept. We will give it, based on the methodology of the genetic modeling approach to the study of personality psychology, taking into account the existing theoretical ideas and based on the experience of therapeutic work in the field of age and family counseling.

Biologically, the appearance of the human body is due, as is known, to the phenomenon of fertilization – the fusion of male and female haploid germ cells and the formation of a single diploid cell – the zygote, which has a complete set of chromosomes and, accordingly, genes. Hereditary traits of maternal and paternal organisms, fixed in genes, form a unique individual combination, and their manifestation is determined by the organismic features of the child. The moment of fertilization is, in fact, the beginning of the separate existence of a new creature and, at the same time, it is the completion, the biological objectification of a biosocial need. The processes that occur during fertilization and after it should be considered as constituent elements of some single phenomenon: the need, originally embodied in the human embryo, organizes and directs maturation in such a way that at the moment of physical birth there is a human being, according to its level of complexity, differentiation and integration is ready for the personal path of further development.

Modern biology, in fact, does not know how processes and individual trends are organized in ontogenesis, and the awareness of wholeness as a starting point, that which does not qualitatively coincide with the sum of individual parts, has the same level in biological science as in psychology. In any case, no biologist will give an exact scientific answer to the question of what is the source and integrator of the dynamic phenomena of human ontogenesis.

We are interested in several key points here. The creature, which is a self-developing system, is not only ready for "planting into culture", it is also very plastic, flexible and complexly compensated, so that the

presence of rather significant morphophysiological deviations does not stop this path. Of course there are limits.

But numerous data from pathomedicine and defectology testify to a very high compensability. This means that there is something important, which we do not know for sure, but it also determines this flexibility and the huge desire of the body system (albeit unconsciously) for continuous development, for existence and socialization. This is a necessity. The amount and variety of human genetic material is impressive. Hundreds of thousands of genes located in chromosomes are not all: there is cytoplasmic inheritance, there are biochemical processes that continue to exist in the zygote, and they also combine the uniquely specific and the universal.

On the other hand, there are genes with different functions, and not all of them synthesize informative RNAs on themselves as a matrix with subsequent biosynthesis of the corresponding protein macromolecule. There are regulatory genes, and finally, there are so-called "silent" genes whose function is completely unknown. It should also be borne in mind that changes in the structure and functions occur much more often than we imagine, because the replacement of just one nucleotide means that another amino acid will stand in the corresponding place in the protein molecule, the spatial configuration of the molecule will change, and therefore, its function. So, a lot can change. And the set of genes is far from fatum. Only the main and integral should not change: if a being is preparing to become a person, then the system must be preserved.

If we are looking for a piece of DNA that "controls and determines the propensity to commit crimes or the ability to love" – it will be really funny... in such a formulation of the question. And that's not what we're talking about. If the human body, the biological constitution, makes sense to consider as the "carrier" of the mental and at the same time as its mandatory content component (substructure of the personality), then here we are talking about a change in the form of existence and the interaction of two factors: biological and social. Outside the personality, around it, they exist as different forces, and in the personality itself – they turn into one – into the otherness of each other, into an inseparable unity. Development creates a new quality. But the same can be said about hereditary material. The reproductive cell, which carries heredity, is not only "flesh from flesh", but also "spirit from spirit", it is an inseparable meaningful unit of the unique unity that is the human

personality. Otherwise, if it did not carry the entire personality in a modified and simplified form, it would not be called a "cell". Not a set of individual genes (pieces of the DNA molecule), but a whole integrated set of hereditary material, combined into a single system with other components of the cell's vital activity, forms that qualitatively new structural and functional unity, which in a changed form, as a new existence, carries within itself and informational experience, and the original need for the existence of the whole personality.

If you understand the matter in this way, it becomes clear that the separation itself the division of human heredity into biological and social is an artificially arbitrary intellectual operation of the researcher in order to better understand... But he loses everything at the same time... And again, Mephistopheles must be mentioned. When Vygotsky proves that the real features of the higher psyche as a whole are determined not so much by the level and content of the development of individual functions, but by the specifics of the connections between them, their interaction, why can't this logic be used? Then it should be said that the features of human heredity as a whole are determined not only by which genes and how many act as its elements, but also by how they interact, what integrity is formed here. And it becomes clear that the groundbreaking achievements of modern genetics in the field of decoding individual genes are, in fact, a very preliminary, tentative step towards the problem of heredity, and not an attempt to solve it.

Such a point of view explains the fluidity, infinity and continuity of the individual in history. After all, hereditary material as a structural and functional integrity is not synthesized by a person during his lifetime. It is transmitted, preserved in a certain form throughout the history of mankind and supplemented by the life history of a particular person. From here, the eternity of love becomes clear: if this particular being appeared (began) without love, this does not mean that it does not carry it in itself at all. The heredity of parents has, carries within itself love beyond their actual feelings: love as the embodiment of the life of thousands of human generations.

But consideration of love only in the context of personal relationships is partial, incomplete and, therefore, does not provide a real understanding of this unique and all-encompassing phenomenon and awareness of its full significance in human existence, in the birth and course of life in general. Teilhard de Chardin said in his time: "For

the science of man, it is of great importance that a zone of thought arose and grew in a specific space of the Earth, where real universal love was not only born and proclaimed, but also life evidence was given that it is psychologically possible and implemented in practice" [301, p. 102]. For in order to reliably state the presence of love in people, one should, according to the general rule of the genetic approach in research, imagine and investigate the possibility of its presence (even in an embryonic, undeveloped form) in all living things that exist. Philosophers noticed this a long time ago and expressed themselves accordingly. Thus, in one of his dialogues, Plato defines: "Love is the desire for integrity and the desire for it" [222, p. 112]. It is further stated that the god of love, Eros, is spread throughout the world, and lives not only in the human soul and its desire for wonderful people, but also in many other things – in the bodies of any animals, in plants, in everything that exists, since he is God is great, wonderful and all-encompassing [222].

Another philosopher, M. Kuzanskyi, noted that love, as a bond of unity and existence, is to the highest degree natural. "Nothing is devoid of this love, without which there would be nothing stable, everything is permeated with a stable spirit of connection, all parts of the world are internally preserved by its spirit and each is connected to the whole world by it" [141, p. 386]. This spirit of love, according to the philosopher, connects the spiritual and the physical into a unique unity. Philosophers of genius have observed in contemplation what is now more and more attracting the attention of positive science: life arises and exists in defiance of entropy, and this means (since it nevertheless arises and exists!) that it is a force opposite in direction and adequate in power. We don't know what it is, but maybe we do...

Considering the initial foundations of life, T. de Chardin notes that the first, simplest manifestation of love is already the phenomenon when physical or chemical parts begin to attract each other and strive for integrity. This is how the mechanisms of development are "launched", the evolution of matter and then life begins. This force of connection is at the same time the force (energy) of being, it means the urge to exist, and we call it need. Adopting such a position means recognizing the non-accidentality of biological evolution, its directed nature. This is a kind of antithesis of Darwinism, but it is accepted in science, at least in certain directions. We are not talking here about

metaphysics and spiritualism, we are talking about a completely serious scientific opinion. V. I. Vernadsky pointed out that "the process of the evolution of life has always gone backwards, albeit with stops, in the same direction – towards the refinement and improvement of nervous tissue, in particular, the brain" [60, p. 59]. He says that this is obvious, but he refers to empirical data obtained by J. Dan back in 1855 [60]. And then V. I. Vernadsky emphasizes: "The most characteristic feature of this process is the orientation from this point of view of the evolutionary process of life in the biosphere" [60, p. 59]. This revolutionary thought of our great compatriot is not very "noticed" by modern science due to its theoretical weakness. After all, you can't accuse V. I. Vernadsky of mysticism and spiritualism. "Life, taken as a whole, is considered not as a collection of living organisms, living natural bodies, but as a special manifestation of something that in nature is clearly manifested first of all in living organisms, but perhaps not only in them" [60, p. 169]. The scientist considers this position very promising in terms of theoretical analysis of the problem of life and emphasizes that this "something" is still unclear.

In general, V. I. Vernadsky is inclined to the idea that the energy (force) that causes, supports and develops life is a universal force and has cosmic origins. These ideas were picked up by T. de Chardin, who introduces the concept of orthogenesis, emphasizing that this is a general characteristic of the directed complexity of the evolution of living things. And it is directed towards the development of mental ("consciousness"). We are talking about the presence of a powerful energetic force of life (the need for existence), which determines the desire for integrity, harmony and has a lot of modifications-branches ("fan" – in Chardin's terminology), crystallizes into love in a person. Thought, consciousness arises between two beings, emphasizes Teilhard, and this "closes the circle" – only love as a desire for connection could give birth to thought: a person arose. "For the world to come to its completion under the influence of the forces of love, the fragments of the world seek each other. And here – no metaphor and much more content than in poetry. Whether it is strength or curvature or the universal attraction of bodies, which we are so impressed with, is only the reverse side or a shadow of what really moves nature. [301, p. 209]. It seems that Teilhard comes very close, and he only has to name our term – "need". And in order to find the key cosmic energy (V.I.

Vernadskyi), one must rise to the heights of the personality, the human spirit, because "love in all its nuances is nothing more than a more or less direct trace left in the heart of the element by psychic convergence to the universe itself" [301, p. 209].

Only love, and this is evidenced by the experience of life, is capable of truly completing human beings as such, since it alone connects these beings by their immediate essence. "Indeed," observes Teilhard, "at what moment do two lovers achieve complete mastery of themselves, if not when they lose themselves in each other?" [301, p. 209]. But the connection will be an act of creation at the same time, when it does not happen as a connection "with anyone" and "in any way", because love disappears in contact with the impersonal and anonymous. Love creates in the individual a sense of wholeness, a sense of the universe, and one can understand and share Teilhard's astonishment when he exclaims: "How could psychology ignore this fundamental vibration, the timbre of which to the trained ear is felt at the base, or rather at the apex, of any strong emotion?" [301, p. 210].

This question is not rhetorical at all: it contains real explanations of the destructiveness and "confusion" of modern society. After all, if we accept what has been stated (and it must be accepted, because it is not only obvious, but also thought out by many creators and even researched in empirical science, even if it is not enough), a puzzle arises: why then do people love so little, and why is there so much cruelty and destructiveness? We return to a concrete plane. Love presupposes the freedom of its subjects, and, therefore, the roots of the problem lie in the real unfreedom of the individual in the modern world. Paradoxically, but quite competently and thoroughly, E. Fromm solved this question: a person, in fact, can have freedom in any society, but he does not want it and "runs away" from it. And therefore – runs away from love. Many Western personologists have studied this phenomenon. E. Fromm himself [291] proves that a person, in fact, "runs away" not so much from freedom and love, but from responsibility, which is rigidly and unambiguously connected with them, and for which a person is not ready at all.

Another aspect is considered by K.-G. Jung. Self-development and self-realization of the individual (necessary attributes of love) appear to him not only as "wonderful" qualities and tendencies, but also very difficult. A self-realized personality refuses conformity and exists as if

on a mountain top – it is very beautiful there (the spirit is enraptured with delight), but it is very dangerous – there are harsh winds, cold, high altitude... Therefore, Jung notes, "the vast majority of people choose not their own way, but conventions, and as a result, each of them develops not itself, but some method, that is, something collective at the expense of its own integrity" [323, p. 73]. The action of personal development turns out to be a rather "unpopular" event, an unpleasant way of evading the highways of conformity. V. Vysotsky expressed this in an artistic and original way in "Ballad of Love":

And weirdos – there are still such -
Inhale this mixture with a full chest
And they do not expect rewards, nor punishments, -
And, thinking that they breathe just like that,
They suddenly hit the beat
The same uneven breathing [73, p. 395].

J.-P. Sartre was able to express a very interesting and subtle view of love as a relationship. He defines what is essential in this relationship as follows: "I should not now be considered against the background of the world, as "this" among other "these", but, on the contrary, the world should be revealed thanks to me" [258, p. 215]. That is, a loved one really becomes the background object in the light of which the world is perceived. But this position turns out to be quite difficult and vulnerable. The love that is expected from another should not demand anything, it is "pure devotion without reciprocity." However, it turns out that it is related to freedom, and related in a contradictory way. "He who loves first of all demands (! – author) freedom from his beloved decision. In order for another to love me, I must be freely chosen by him as a beloved" [258, p. 216]. And we do not notice this subtlety – I demand freedom, and therefore, since I am loved, I already make a person unfree. And I don't need such a non-free person as the object of my love: if I was not chosen freely, it rather scares me, or provokes aggression or manipulation, but it in no way promotes love.

Sartre does not solve this paradox, and it seems to us that it is quite adequate to modern possibilities. I want a free person to love me, to be her free choice – by this I "drive" my loved one into a very difficult trap. In life, this often leads to serious problems that can end in a breakup. We are talking about jealousy. Leaving aside their other numerous reasons, let's consider only this aspect: I want my loved one to be a

person who is free and faithful to me, and faithful not because I want to, but because she cannot and does not want otherwise. And this can translate into a real "sadistic" (Sartre's term) attitude towards a loved one. And this is something we are not ready for. Let's end with a long quote from Sartre without comment: "We know that in the everyday terminology of love for a loved one, the term "chosen one" is used. This choice, however, should not be relative, made in relation to the circumstances: the lover feels inferior and is overcome with anxiety when he thinks why the loved one chose him among others. "Yeah, so if I hadn't come to this city, if I hadn't visited so-and-so, you wouldn't have gotten to know me, wouldn't you have loved me?" This thought is torture for the lover: his love turns out to be one of many others, limited by the chance of meeting; it becomes love in the world, an object that presupposes the existence of the world, and perhaps, in turn, existing for some other objects. And he demands something completely different... [258, p. 216].

Researchers see the big problems of love relationships in the phenomenon of self-disclosure. We have already indicated the opinion of R. May, who emphasized that a meeting in love can become a source of a surge of very acute anxiety. Closer all this was approached by K. Rogers [248]. Deep self-disclosure and self-awareness, complete openness to others in love can really be dangerous for people who do not accept themselves. Rogers explains this rejection, incongruence, with a significant difference (sometimes antagonistic) between the "self-concept" and the "organismic self" of a person. "I-concept", as a set of realized and "allowed" information about oneself, is formed in a situation that Rogers calls "a condition of value". What does this mean?

Starting from an early age, a child learns what he should and shouldn't be. Its real features, which correspond to this "should" – are realized and in their totality constitute the "I-concept". The same ones that a person has, but they are from the "can't have" field – they don't "pass" into consciousness and are hidden even from themselves. Together with the "self-concept" they constitute a complete "organismic self". A fully functioning personality (Rogers' term) is marked by the practical absence of a difference between the self-concept and the organismic self.

But there are few such people. The tension from the presence of hidden, unaccepted properties and needs greatly interferes with

existence, giving rise to symptoms, which in general means "mental illness". But this problem is repeatedly exacerbated if a person finds himself in a situation where it is not just necessary to fully open up to oneself and realize oneself, but to open up to another person "to the bottom". But this is a love relationship: nothing can be hidden here, because the loved one will immediately feel it, and on the other hand, it is impossible to show it. This is how fear and untruth are born – the greatest enemies of love. Of course, love is a phenomenon of non-evaluative perception – that ideal of therapy, which, as Rogers proved, allows a person, in the end, to get rid of tension and accept himself. But love is not therapy, and a loved one is not a doctor or a psychologist. She is passion itself, naked interest and all-pervading activity. And then concealment, manipulation begins, and love disappears, leaving room for pragmatism and sexuality. The worst thing is that it is modern society seems to facilitate such a turn of events.

...In one very authoritative modern mass publication, a huge pompous part was recently published about how advanced modern surgery provides a young woman with the "renewal" of the physical signs of virginity. Everything written is, in fact, very primitive and boring, but one question arises: why do it? The journalist honestly asked this question to several "interested" persons, and their answers are quite symptomatic, and boil down to a simple: "I don't want to hurt a loved (!?) person. Of course, these are the answers of 100% of the psychotherapist's patients. What kind of love is it all about? ...However, we are not solving the problems of consultation here, we just wanted to emphasize a rather strange orientation of society, although, perhaps, not so strange, because in this society everything is a commodity.

Love can indeed be disturbing and frightening, and very often this fear is overcome through sexuality. We have already mentioned the complex relationship between these phenomena: it is of interest to us in the general context of our problem of studying the ontogenesis of personality. Conception is a phenomenon that, as it were, does not depend on the feeling that the future parents have for each other and for the future child. But then why do we emphasize that this is not the case, because personality begins with love, not with fertilization? The problem is complex and voluminous, and we will only outline it by touching on one aspect related to the conception and birth of a child.

You can turn to religious texts, in which the concepts of "sexual" and "sexual" are quite clearly distinguished. The first is considered in the context of the love of a man and a woman not as heterosexual beings, but as spouses and future parents. The second concept is more complicated. Sexual acts as a necessary constituent element of sexual relations and as such complements and harmonizes them. But only in this quality. Religion is absolutely and radically against sexuality outside of sexual (marital) relations and outside of love. Given the age-old existence and vast experience, we can assume now that the concern here is not only about observing ethical norms of behavior: religion is concerned about the future, and the future here is a child, a new miracle. And not only religion. This is what V.V. Rozanov says (who, by the way, was not very accepted by religious figures): "From this feeling, generally of cosmogonic origin (not only earthly), they are the most fruitful, hereditary of all, they create and continue to infinity "in his own image and likeness"... Soul from soul, like a spark from fire: this is childbirth" [245, p. 41].

What does genetic psychology see as the essence of the problem of the ontogenesis of a child that begins and is born outside of a love relationship between two people of different sexes? We think it is important to note the following positions.

Firstly, the heredity of the future child as a whole is determined, among other things, also by the specifics of selection – people's choice of each other as future parents. In the history of each culture, certain criteria for such sexual selection have developed, and the signs by which it passes are certainly related (rooted) in heredity, both biological and social. But this selection is determined not only by cultural and ethnic standards, but also by the personalities themselves. And this last very much depends on what, in fact, a person of the opposite sex is chosen for.

One thing is superficial, short-term sexual contact, and then we focus on one group of signs, and quite another – love, modeling a joint future, imagining and predicting a loved one in it. It seems that there is no point in doubting that in these two cases there will be orientation towards fundamentally different signs (although, of course, purely morphophysiological properties will remain important in both cases, but how many others exist!). Thus, already at the stage of selection and

establishment of contact, we significantly influence heredity, and therefore, the formation of the future of our "work".

Second, we dare to assert that in the absence of love between persons who start a new life, the potential all-human and all-natural love, which is embodied and reflected in these persons, will not be fully revealed and crystallized in the new creation. The special condition of people always reveals and actualizes the deepest and most secret things. Therefore, on the one hand, our previous remark is true, according to which this potential universal love will be embodied in a new human being, but this nuance is important – we can talk about the degree of this embodiment.

Thirdly. Sexual without love means – simplified (using the terminology of Z. Freud, this is a relationship in which a lot happens according to the "pleasure principle" and very little (very little) – according to the "principle of reality"). In reality, this means the absence or extreme primitiveness of the relationship. One of the outstanding psychotherapists (I. Yalom) [325] notes that significant experience of sexual relations without a feeling of love has a severe impact in the future – a person cannot build a relationship, even when he really wants to – stereotypes appeared, and they did not about that... Lack of relationship means lack of care, respect, interest, awareness, etc. This factor acts most negatively in the first moments of existence (prenatal and, especially, after physical birth).

After all, the love of parents for each other can only give birth, revive, actualize the love of the child itself; only it will mean the complete unconditional acceptance of the child and the formation of basic personal formations in him, such as trust in the world, etc. It may be that love will arise after conception or the birth of a child. In this case, the relationship that will be created will largely compensate for its absence during conception. On the other hand, this factor determines that the lack of love is psychologically equally bad for the future child both in cases of so-called "unexpected" pregnancy and in cases when a woman engages in sexual contact with the sole purpose of having a child.

Finally, we must not "discount" the phenomena of the psychosomatic sphere. Mental states determine in many ways the peculiarities of the functioning of the somatic sphere, and we are well aware of this in relation to cardio-vascular, digestive, respiratory system. What prevents us from imagining that they also affect the

human reproductive system? The lack of empirical data in this case is not an argument. Therefore, such a hypothesis has the right to exist. We have shown that the "peak experience", which is the peak of creativity in love and, in fact, orgasm, are different states, different experiences. So, most likely, they will have different effects on the reproductive system, that is, on its productivity, the quality of the cells secreted, the precise mechanisms of fertilization, etc. All this may indicate that conception, according to some essential parameters for the future child, will be different depending on the mental state of the parents.

In general, our opinion regarding the influence of love on the formation of personality in ontogenesis, although largely hypothetical, is based on serious premises. A specific question may arise: what exactly can be negative about the lack of love between people when they "create" a new life? Without going into the details (which would be irresponsible in the absence of empirical scientific facts), we dare to speculate: fear of love and "escape" from it, inability to build relationships, refusal to grow and self-realization – isn't all this a consequence of the birth of a person? in love?! And the circle closes again.

There is one more important aspect. We do not want to say that everything in the life and formation of a personality is determined by the initial act of its creation and the state in which the parents were. This is not true at all. The existence of the individual as a social phenomenon that develops itself by integrating itself into the culture, actualizing one's own biosocial potentials and creatively comprehending the world has many opportunities to compensate for the existing deficiency and grow in love from others and for others. At all stages of an individual's ontogenesis, such opportunities are potentially provided, and it is her own business to use them. Although experience teaches that it is very difficult to compensate for the lack of love in early childhood.

In conclusion, it should be noted that the material of this section is very extensiveimportant, but at the same time acutely problematic. A genetic modeling approach to understanding the actual mechanisms of personality ontogenesis determines the need for a scientific and psychological analysis of such a complex and important phenomenon as human love. At the same time, the lack of empirical research (and, therefore, data) forces us to combine the initial theoretical and philosophical positions, observations made in consulting work, and life

experience in the analysis. Hence the problematic and debatable nature of what has been presented, in which we fully report to ourselves. But discussion is not the worst way to develop science...

Ontogeny of personality

Genetic psychology is based on those logical-methodological foundations, which, as has been repeatedly noted, real knowledge and understanding of the object of research is possible only on the condition of tracing the origin and formation of this object. So, from a genetic point of view, in order to understand what a personality is, it is necessary to explain and show (reproduce in models) the process of its formation, to determine how and as a result of the action of which laws and mechanisms the personality as a whole emerges and develops. This path of search ultimately leads to the opportunity to answer the questions: "What is developing?", "What is the object of development?".

At first glance, more than enough attention was and is being paid in psychology to the study of the problem of personality development [15; 40; 136; 68]. However, this is really only at first glance... A careful analysis of a large body of literature proves that in the absolute majority of cases the task of studying personality development is specified and implemented as the study of the development of individual mental phenomena or their group (reductionism). The goal of understanding the psychological essence of the individual through understanding the ways and mechanisms of its formation is not even set. One of the consequences of this is a fairly clear and surprisingly easy logical division of theories of personality development into the so-called "biological" and "sociological" theories. It's just that the first group of theories is based on the generalization of empirical facts about the formation of individual mental phenomena that are (allegedly) more influenced by biological (hereditary) factors, and the second – studies mental phenomena that develop more under the influence of the social environment. Of course, these theories record the actual state of affairs: after all, a person, indeed, matures as a biological being, and on the other hand, it is formed as a social being. Both maturation and formation are components of the process of personality development, but they are not this development, and do not "give" it even when they are combined with each other. (The latter is in itself a rather problematic moment, and since O.V. Zaporozhets noted that the relationship between maturation and formation has not been studied in psychology, nothing has

changed). We can note now that psychology does not have a theory of the development of a complete personality due to one essential point: the lost "third component" of development, namely self-development. At one time, H.S. Kostiuk noted that the inadequacy of the existing opposing approaches for a true understanding of personality development should be overcome by "scientific understanding of the process of formation of the human personality as a "self-movement", which is determined by the unity of its external and internal conditions" [136, p.130]. For 30 years in a row, the same opinion has been expressed by V. I. Slobodchikov and E. I. Isaev: "We should talk about development not only in the essence of nature (maturation), not only in the essence of society (formation), but above all in the essence of man – about self-development: as a fundamental human ability to become and be a valid subject of one's own life" [261, p. 13]. So, nothing positive in this direction has happened in personality psychology over the years... The genetic modeling method, as it was shown, includes the principle of self-development, so our further analysis will be carried out precisely within the limits of this method.

It seems to us that it makes sense to ask a fundamental question that was not asked by G. S. Kostyuk or V. I. Slobodchikov (as, in general, by other researchers): this is a question about the origins, the driving forces of the self-development of a complete personality. Genetic logic is at work here again: ascertaining the presence of a phenomenon (self-development), its description does not at all mean its real understanding, when we do not decide how, thanks to what origins this phenomenon arises and develops. WITHon the other hand, attention to the phenomenon of self-development is not accidental – because it is an essential, key function of the individual. You can even say this: the personality exists as a whole structure that ensures the realization of the function of self-development, self-movement. So, how does this feature appear? A comprehensive in-depth analysis of human existence, as well as numerous theoretical ideas about it, allows us to determine this aspect: the origin of self-development (and, therefore, of the individual as a whole) is need as an energy-informational essential quality that ensures the expansion of life in ontology and phylogenesis. The need acts as the only original intentional force, the activity of which "launches" the complex system "personality" and ensures its development as self-development. She, this force, is a unique carrier of

the dynamics of life, in particular, human life. Need generates not just existence, and not just ontogenesis; it is necessity that determines the unique phenomenon of life and its development: the evolution of life is directed, and it is directed towards constant complication and progress. Thus, necessity determines the presence of a determinant in biological evolution: development is determined by a non-existent level of morphological, anatomical structure or functioning, it is determined by the future – it is a movement towards complication. This phenomenon has received the name "orthogenesis" in modern science. The need in this understanding is the source of existence and development of any living being, not just a person. However, we imagine that, by its very nature, need is dynamic and open to self-change. Therefore, it is able to be modified within the systems where it operates, and this modification gives rise to new, more complex functions and, accordingly, the structures designed to implement them. Self-change and the ability to evolve means that plant, animal, and human needs are the only energy-informational carrier in their deep nature, but the changes that he received while being within a separate link of life (for example, plant life) lead to the fact that its further action, its further universal existence requires and necessarily generates more complex systems that implement it.

It is not for nothing that we touch upon and emphasize here the global nature of the need. After all, it allows us to understand the inseparable unity of all living things that exist on Earth. On the other hand, such an understanding contributes to the solution of the theoretical and logical problem of determining the actual place of this phenomenon among the known intentions of a living being and, of course, a person. The proximity of the need to the Freudian libido most easily and quickly catches the eye, and therefore there is a desire to identify these intentions. But this closeness is imaginary and completely untrue. If we talk about Freud, then for him libido means only sexual drive "in the primary medical sense". Libido is really a force here, the manifestation of which ensures the action of the procreation instinct and, through it, the expansion of life. So, according to Freud, libido is an energy formation of an exclusively narrow sexual orientation; and on the other hand, it is generated and at the same time manifests itself in instinctive, i.e. simplified, schematized, biologically programmed behavior [287, c.35]. Such an understanding is really very far from our

idea of need, although it should also be noted: in the very sense of the word, according to its etymology, libido, in general, is fully adequate to our understanding of need, although not identical. The reduction of the term, most likely, did not satisfy the author himself, who in his later works was increasingly inclined to the universal meaning of this phenomenon, ultimately deciding to introduce a new (for himself, of course) term "Eros", which means fundamental life force, rather even "cosmic beginning of existence". However, a careful analysis of the works of this period proves that Z. Freud, working really with this concept, still remains within the purely sexual-instinctual boundaries. It is important for us to note the paradigmatic position of Freud regarding the opposition of the social to the libidinous energy, with an exclusively conflictual basis of the development of the structure and dynamics of the personality.

K.-G. Jung developed the concept of libido in a much more meaningful and interesting way, bringing it to a real philosophical and worldview sound. Noting that "the concept of libido is given in a functional relation the same meaning in the field of biology as the concept of energy has in physics" [322, p.117], Jung develops the concept of libido to mean the universal psychic energy, life force inherent in the entire organic world. Next, Jung proposes his own "genetic theory of libido" and develops it to a philosophical level [319]. He believes that libido ensures adaptation of the body to the surrounding environment, appearing here as an "extra-sexual" branch of the originally single stream. "This consideration leads us to the concept of libido, which in its expansion goes beyond the limits of the natural-scientific formulation to the philosophical worldview, to the concept of will in general" [322, p. 116]. Jung draws attention to the fact that in his interpretation the concept of libido becomes close to such concepts as Plato's Eros, the world soul as the energy of Plotinus' mind, Schopenhauer's will, etc. Jung especially emphasizes the libido's ability to divide, which is a prerequisite for any development and creativity: "the soul of the world is the "infinity of all life" and therefore exclusively energy, it is an organism of ideas that acquire activity and reality in it" [319, p. 116]. It is noted that the "will of libido" is embodied in the multicolor of natural phenomena in the most diverse application and formation. In this general philosophical part, K. Jung's idea is very attractive because it corresponds to the actual state of affairs. But only

in this abstract form. Further analysis proves that only in this part Jung managed to understand the essence of the human psyche "from above", that is, from the point of view of global natural and cultural phenomena. When it comes to interpreting the specific mechanisms of action of this universally global libido, Jung, imperceptibly for himself, explains them in traditional psychoanalytic (Freudian) logic – "from below". He quite rightly, although, let's note in parentheses, and without discovering anything particularly new, believes that the appearance of the human psyche, consciousness is connected with a specific doubling of the natural world, thanks to the ability of man to create symbols. "New" here was assumed in the discovery of the mechanism: for Jung, the symbol arises as a consequence of the action of the universal libido energy. But, unfortunately, the new was only foreseen: K. Jung explains this mechanism, starting not from the libido, the nature of which he described philosophically, but exclusively from the Freudian libido: the unrealized sexual instinct "branches out" and is embodied in a specific movement, object or image, symbolizing ... sexual intercourse. And then Jung, using his truly phenomenal erudition, tries to prove that both fire-making, and drawing, and writing, and speech and ... everything else purely human are symbols created due to the "deflection" of the libido, but exclusively as sexual instinct. So, Freud remains undefeated. When Jung transfers his logic to the field of ontogenesis, he finds himself even closer to Freud. By the way, we could imagine here with interest, what is the problem of Jung the researcher? Paradoxically: much earlier than Freud, he began to develop the idea of libido as a universal (and not only narrowly sexual) carrier of life, including intelligent life. He surpassed Freud in terms of philosophy and methodology, but when he returned with his own (really interesting, deep and promising) position in psychological boundaries, he had to "move" on Freud's ideas... It seems that this is a problem not only of the scientist, but also a personal position, or rather, an interpersonal one: it is scary to take a step that will overtake the founding maestro... This is evidenced, among other things, by the fact that Jung does not introduce a new term: after all, the phenomenon that he postulated, philosophically described and proved, is completely unlike Freud's libido, which by that time had grown so much with the name of the author that Jung's personal position turned out to be a losing one from the beginning: he wanted to expand the field of the favorite concept of the creator of psychoanalysis, but it turned out

that he found another phenomenon, more interesting and deep. There was a double negative effect here: on the one hand, we are sure that the readers did not really care about the content of Jungian theorizing when they encountered the term libido, and on the other hand, Freud must have felt this anticipation of Jung and, apparently, for their relationship it would be better if the latter was not afraid to introduce a new concept. But Jung was consistent in his position – he "glued" the old Freudian mechanism to the new phenomenon, and then refused to describe the actual psychological (not philosophical-worldview) nature of this phenomenon: thus libido remained just a sexual instinct, and Jung's bright constructions "hanged" outside of psychology. and Jung's bright constructions "hung" outside psychology. and Jung's bright constructions "hung" outside psychology.

And yet, Jung's theoretical explanations attract us already because we do not find in the history of psychology a similar concept that would so deeply and masterfully touch on the nature of the original driving force of personality ontogenesis. And that is why we will try to compare our ideas about need with this theory.

Need is certainly a flow of life energy, but it is not a sexual instinct. And it is not an instinct at all. The latter in the strict sense represents exclusively biologically programmed behavior. Such behavior can be determined by need, and it happens only in the most elementary, separate acts of organismic functioning. As G. Allport rightly noted at one time, exclusively instinctive, purely biological behavior is an anomaly, it is a pathological phenomenon. The thesis requires an explanation.

Traditionally, the term "biological" is used to describe the anatomical or morphological structure of an organism and its purely natural functions – movement, nutrition, growth, reproduction, excretion. Therefore, the biological is exclusively natural, and it is motivated by the same "purely" natural needs that ensure the existence of the organism. It is clear that in this tradition, the original energy essence of the organism, which generates specific needs, has an exclusively natural nature. This is where the unresolved social problem arises, which should somehow be "added", "included" in the existing energy system. But we would like to draw attention to an interesting fact: within the living nature of the Earth, we do not come across a single case when an organism would exist alone, separated, isolated from

other organisms. The understanding of this fact as fundamental led V. I. Vernadskyi and T. de Chardin to create the theory of the biosphere, and then the noosphere as a unique unity of earthly life. In fact, this fact speaks about a very essential thing: the existence and expansion of life at all its levels is ensured not only by the infinite energy of reproduction, but also by the same infinite desire for coexistence. Need is the original combination of these two forces, which in their unity create the mighty flow of endless existence. The roots of the social, of course, lie in the simplest interaction of living beings, which is an absolutely necessary attributive fact, just as important in importance as reproduction. Thus, need is initially a combination of two global aspirations – reproduction and interaction ("biological" and "social"). One is not possible without the other, and this is, if you will, an imperative for the existence of living things. And it turns out that just as an organism needs to fight with its environment in order to live (at all living levels), it also needs to be together with another living being, and this causes the development of appropriate forms of behavior. Why Freud noticed only the struggle, only the confrontation is anyone's guess, but this is exactly what led him to reduction. We can turn again to the evolution of life and note that there is a very small and evolutionarily unpromising group of organisms (albeit very numerous) that do not need another organism to reproduce. The absolute majority can realize this fundamental need only if they meet another. Thus, meeting and interaction becomes not only "next to" reproduction, but turns into its prerequisite. This is the "cell" of the process when the social (interaction) is transformed (incarnated) into the biological – a new living being.

The second answer option is about socialization: cultural needs are formed in a person by the social environment. Nothing is clear here for psychology: exactly how and, actually, "from what" are these needs formed? And what does it mean that the need for a person is formed by someone else? In the third variant, an attempt is made to combine "need" (in the traditional sense) with cultural needs: "needs" meet the social environment and turn into personal needs. And in this sense, it is not so important what exactly happens at this meeting – collision and confrontation, as Freud believed, or assimilation and appropriation, as Vygotsky thought. The main thing is that the very transformation of "need" into a cultural formation is not recorded by anyone and anywhere.

As you can see, no answer option can satisfy us, since all of them presuppose the original "duality" of a person – the organism and the social being (personality) coexist in the best case in some strange, clearly made-up space. Here, the principle of continuity (non-disjunctiveness) of the existence of the mental as a process is not simply violated, but something worse happens – the mental is somehow lost, lost between these superphenomena – biological and social. (And here he is – the real moment of truth: by and large, in fact, no one departs from Freud, in whom the psychic is "between" instincts (biological) and the super-ego). And even O. V. Brushlinskyi, who very seriously, competently and thoroughly defends the principle of non-disjunctivity, cannot stand it and makes a caveat: "At any of its ontogenetic stages (except the first), any psychic is formed and develops from the psychic same. Somewhat roughing up the essence of the matter, one can even say that in any infant, the mental arises only "once" – at the very beginning of ontogenesis, and then it only forms and develops on the basis of already existing mental formations" [47, p. 121] (underlined by us – S.M.). A great specialist makes a small, it would seem, relaxation, but this one time is worth a lot: it crosses out the whole concept, which in itself is absolutely correct and heuristic.

We ask a very simple question: can any (in general – any) internal intention be considered non-psychic, that is, one that does not appear as a result of a reflection and does not further direct this reflection, one that is not self-regulating? And here there is only one (and also a "simple") answer: of course not! The simplest, most "biological" intention is mental by definition, it is the psyche (though, of course, the psyche is not just an intention). Thus, need, even in its traditional understanding, is definitely a mental formation. Therefore, there is no "meeting" of a purely biological nature and the psyche is not born, even "once" – it is already there, it is always there, and need is its carrier. Man is a living being, and this means that his original intentional nature cannot differ significantly from the intentional nature of any other living being. It differs fundamentally, but not significantly. Therefore, we do not see the need to abandon the original concept. On the contrary, we return to it its real wealth: need, in general, reflects a root, thorough need, and besides, it means expressed dynamics – movement. It is an insatiable dynamic trend. (In this sense, "need" is a much weaker term from the point of view of active dynamics).

On the other hand, we do not imagine the possibility of understanding the mechanisms of personality ontogenesis outside of the psychodynamic aspect. After all, to "take out by the brackets" the most essential thing – the movement of the system, which only exists in self-motion – means dooming oneself to complete failure, or, in the best case, to inventing another static scheme that has no relation to the real there will be no state of affairs.

As already mentioned, we consider personality as a complex, self-developing open system. The direction of personality development (phylo- and ontogenesis) does not fundamentally differ from the general direction of evolution – complication, differentiation, dominance of internal development compared to external, self-regulation, integration.

The past (scales, samples, standards) cannot directly and directly determine the development of the personality, since it is "lower" in the composition of the personality – "higher". And this past, "lower", changes and transforms as part of the personality, losing the original guiding tendencies. S. L. Rubinshtein noted: "... with the appearance of new levels of existence, all its lower levels appear in new qualities" [250, p. 259]. Thus, the original trends and benchmarks do not actually disappear, but themselves become different, mediated by a new level of existence and the future of this existence. Let's consider two determining tendencies of the ontogenesis of the personality from the "past" side – hereditary and genetic and actually historical (as the history of a generation). At first glance, it seems that the code of heredity (genotype) most clearly and rigidly determines the existence of a person, since it contains information about all possible structures and mechanisms. It turns out that there is a kind of matrix (of a completely material nature) that determines the existence of everything that will arise on it (but only on it! And this is a limitation). And again – we have a vulgar and simplified logic of a rough division: the matrix is material, and all that it generates are its functions, properties, that is, it is not material, ideal (let's remember: the psyche is a property (function) of the brain; very similar to, that the smell is a property of acetone). This logic, which is literally "imposed in my teeth", does not correspond to reality at all. A person's genotype turns out to be completely unlike any cliché matrix. Molecular genetics confidently shows that the genotype itself is simply brilliantly flexible and mobile: there are quite reliable data that the number of working genes of an adult increases in

comparison with a newborn child by hundreds of thousands of times (300 trillion against 30 thousand). This growth cannot be explained only by an increase in the number of cells in an adult. The increase is due to the fundamental limitlessness of human capabilities, and the genotype through feedback with life conditions (social) seems to provide an opportunity to realize this limitlessness. Although, we are talking about a fundamental, not an actual life situation: in actuality, a person is always limited by the conditions of life.

Another fluctuation is that during the 12 years of life after birth, the volume of a person's brain increases sharply and significantly (by 100% at the end of the first year and by another 100% in adolescence). And how strongly (and throughout life) the surface of the cortex of the large hemispheres increases! This increase is indeed structurally infinite. Therefore, the human genotype is fundamentally different (both in terms of structure and functions) compared to the genotype of other living beings. How did this difference arise? It arises from mediation: the interaction of biological structures with social factors. Our genes are not purely biological formations, they, like a holistic need, represent a biosocial unity from the very beginning. Just as the biological becomes social in its manifestation (signs, traits, behavior), so the social becomes biological, which is already noticeable in the existence of animals, not to mention man. And since we cannot even consider the genotype as a purely biological component, it cannot be said that the development of the personality is biologically determined to any extent. The conditioning process is different: some biosocial tendencies (genotype, need) meet with other biosocial tendencies (surrounding natural and social world) and, mediating each other, determine the development of this integrity, which is the human personality. In this sense, the most controversial aspect is the ratio of gifts and abilities. To us, on the contrary, it seems to be the most vivid confirmation of our idea. When they say that with all theoretical judgments, one must agree that "a person cannot go beyond his abilities", then they say that it is true. But let us answer one more simple question: what is a down payment? Who saw, observed at least one deposit? Answers to such questions are very imprecise: they say that predispositions are related to the morphoanatomical structure, they are hereditary and, therefore, not psychological, while abilities, on the contrary, are psychological and not hereditary. But as far as we know, no one has ever unequivocally

investigated any deposit. And this is not accidental: a deposit is not something that exists in reality, but something that exists as a term, as a concept – that is – in the head of the researcher and nowhere else. Is there any reality to this concept? We are certain that in the strict sense of the word, such a clear, defined, concrete reality (such as material, morphoanatomical) simply does not exist. The morphological structure of a person's vocal cords can be called a gift of speech ability, but, on the other hand, you can safely not call it. Because the ability to speak, in fact, does not consist in the division of sounds: it consists in something completely different. To endow sound sequences with meaning and meaning, to understand this meaning, to convey it by "entering" the context of the addressee's personality – what does the morphology of the human throat have to do with this? Of course, it somehow has. But the ability is generally a phenomenon very far from anatomy and morphology: does a deaf-blind person who understands and transmits thoughts, but does not speak or hear, have the ability to speak? The sensitivity of human skin to color, which was formed experimentally by O.M. Leontiev, is determined by what predisposition? Did Ludwig van Beethoven lose his musical ability when he became deaf? We can ask many such questions. It is not so difficult to answer them, you just need to move away from scholastic logicization and dissection of everything into elementary parts. Biosocial unity, which is the human body, does not determine the development of the personality, but, on the contrary, is itself determined by this development – it changes, varies, including changing "social heredity".

Just as the development of a personality is not limited by its genotype, it is not limited by the history of a generation either. Children always differ from their parents from the point of view of social existence, even if they continue labor dynasties, perform the same social roles and do not go beyond social stratification, occupying the same places in it as their parents and grandfathers. Undoubtedly, genetic heredity also plays a role in the continuation of the social "business" of parents, certainly the microsocial environment in childhood is important here. But here there is no rigid determinism and framework: a person still chooses the path of life himself, follows it himself, reaching his own peaks. There are children who continue the work of their parents (although there are not so many of them), but they are not "set" on this path, and they are not a simple mold – a copy of the parents'

personality. They follow this path because they have their own motives and values.

Jung [324, c.325] highlighted this point very vividly. Personality development in childhood and especially adolescence, as the beginning of movement through life, is accompanied and guided by an archetype (maturity, wisdom, awareness). Jung writes that for him personally in adolescence, the image of a wise stranger, to whom the boy often turned in difficult moments and always received an answer, attention and advice, served as such an archetype. (Of course, the place of such an archetype can be occupied by a real person -father, grandfather or one of the prominent relatives). But following the archetype (here, as we can see, the archetype determines and, at the same time, limits, "standardizes" development) ultimately led to a sharp conflict with it. Jung painfully experienced this conflict – the separation with the "guide", but at a certain limit a person must decide for himself.

Therefore, personality development is not determined by the past (in any form) and is not limited to it. At the same time, continuity is preserved in this process – each new stage is the result and consequence of the previous one. This is what ensures the continuity of mental existence in general and of the individual as his human form of existence, in particular. We are interested in the limits of continuity in time. The concept of need allows one to abandon discreteness in understanding the existence and development of the individual. Finally, we begin to understand the meaning of the metaphor, according to which the development of the individual is a continuation of the biological and social existence, and therefore has historical characteristics. It is possible to interpret our idea in such a way that we replace the metaphor with a scientific concept: the personality in its formation continues history, because it turns out to be a function of the biosocial need that materialized in it and thus continued its energy-informational existence. Thus, a personality, in fact, does not arise, but is born by two personalities, continuing them, and therefore all other people. And that is why it is the bearer of history as the universal evolution of the universe. This is where universality and self-worth come from: the world reflects itself in the individual, in this sense, there is no more self-sufficient and meaningful goal of existence and creation.

We have already noted that the diagnosis of development, at least in the sense that L.S. Vygotsky has, is absent in modern psychology. No

branch of our science can boast that it has, however fragmentarily and partially, developed diagnostic procedures for the development process itself. Even the experimental-genetic method cannot be considered properly diagnostic, since it does not solve the problem posed by Vygotsky: is what is formed in the process of applying this method, by the same thing that is formed even without its application.

The lack of a methodical research procedure forces us to talk about the reasons for this. It seems to us that the main reason lies in the fragmentedness of the personality analysis – partial elements are considered essential and meaningful, and this deforms the subject of research.

Personality development – deployment or new formation?
Concepts of personality development, such as the unfolding of certain "structures" or "plans", which from the beginning exist in a special collapsed state in a person, have a long history and are relevant in modern philosophy and psychology of personality. One of the reasons for their stability is the arbitrary and, we would say, convenient transfer of the laws of the organism's development to the individual as a whole. Biology cannot free itself from epigenetic ideas about the development of a living organism, even though these ideas contradict new scientific facts. The absolute majority understands the process of development of a biological being as the deployment and implementation of a genetic program.

After the tumultuous and victorious for E.V. Ilyenkov and his colleagues in the literary philosophical and psychological debate of the 70s, literal and direct transfers of ideas of biological epigenesis to the development of personality became unpopular in domestic science. But it should be recognized that the genesis of certain personal structures is often considered within the framework of this paradigm (the development of abilities is a direct result of the development of aptitudes, the development of character is the development of properties of the nervous system). Although these theoretical views are not declared in most cases, the construction and methods of analysis of experimental studies and applied psychological (corrective) work testify to the methodological basis of such works. We are no longer talking about the field of practical pedagogy, where ideas about biological programming and fatality of not only abilities and character

traits, but also value orientations of the child are the absolute and only principles of building the learning and upbringing process.

However, it is not only about the biological program and its deployment. Modern Western personality psychology makes extensive use of the deployment principle. Officially, only E. Erikson's theory is called epigenetic, but, as the analysis shows, it is far from alone. According to Erikson, personality development has a clearly staged character, "these stages are the result of the epigenetic unfolding of the "personality plan", which is inherited genetically." The role of the social environment is to perceive the inherited stages and facilitate their passage by the child. What these "plans" are, remains unclear. The position of humanistic psychology and phenomenology is exactly the same. Thus, L. Hyell and D. Ziegler note: "Rogers postulates the natural development of people to the "constructive realization" of their innate capabilities" [294, p. 513]. A. Maslow talks about the development of the self, and the process of development, in his opinion, consists in the actualization of this self (self-actualization). It is interesting that humanistic psychology, which is called the "new wave" and which arose as an opposition to psychoanalytic theories, left the same principle of epigenesis that was the guiding principle of psychoanalysts. Only she changed programs: if in psychoanalysis, development is interpreted as the unfolding of the subconscious (instincts, drives, archetypes), then for humanistic psychology, development is the unfolding of the superconscious.

The attractiveness and apparent comprehensibility of the unfolding phenomenon raises, however, many questions and is very different from the real life of the individual. The main thing is not even that "plans" and "programs" remain incomprehensible and unknowable phenomena. More important is too rigid determinism, which does not correspond to reality at all. Experience shows that a person chooses his own path, experiences his own aspirations and finds ways to achieve his goal. She often makes mistakes and gets disappointed, changes her life, finds a different environment, gives up habits, etc. All this is somehow incompatible with programmability. It should be recognized that no matter how complex programs are, they are still limited. Instead, the diversity of human individuality as options for development individuals – unlimited.

In addition, there are actual scientific facts that testify that a significant number of separate psychological structures of the personality do not unfold during its development, but on the contrary – collapse. Thus, with the emergence of indirectness, the cognitive sphere of a person specifically collapses: thanks to indirect memorization, for example, a person can "afford" to store in actual experience not huge literal information, but its sign. Collapse is inherent in all the higher mental functions of the individual.

In the cultural-historical theory of L.S. Vygotsky, the process of personality development is understood not as the unfolding of something condensed and coded, but as the emergence of fundamentally new psychological qualities – new formations that occur in the active activity and interaction of an individual with the cultural environment and other people. In this process, the biological (subconscious) plays its role. "Biological connection," notes E.V. Ilyenkov, "which is reflected in the identity of the morphophysiological organization of individuals of the species homo sapiens, is only a prerequisite, only a condition of the human, "ancestral" in a person, but not the "essence", not an internal condition, not a specific community, not a community of personality and personalities" [118, p. 330]. The same prerequisite, on the other hand, is the presence of a spiritual and cultural environment – the carrier and custodian of universal values (superconscious).

In order for personality development to take place (a person's life took place), between these subconscious and superconscious prerequisites, the purposeful activity of the individual himself must be "placed", which will lead to the appearance of neoplasms.

So, there is not even a contradiction, but a contradiction: on the one hand, the understanding of personality development as the unfolding of an internal plan (program), which in a certain form exists in a person now. On the other hand, there is a vision of development as the acquisition of mental neoplasms in active distributed activity. These two positions can be dialectically combined: developmentpersonality represents the acquisition by an individual of mental neoplasms in his own activity. The appearance of these neoplasms means the development and complication of the personality as a whole.

Personality development takes place through the appropriation by the individual of the cultural and historical experience of all mankind.

But the mechanisms of melting this experience into the experience of the individual are not completely clear. On the other hand, how does the appropriation of experience connect with the internal process of development and with the activity of the person himself? In other words, personality development occurs only in the processes of education, upbringing and other forms of interaction, but it does not occur only in these processes. This contradiction is purely epistemological and arises due to a simplified understanding of the process of appropriation, equating it with socialization. The latter is an adaptive "external" process of human adaptation to social conditions of existence. This is the process of the emergence of the ideal. Encountering the social environment in the process of realizing one's own activity, a person creates from these objects (material or ideal) special means-signs that help him realize his activity. These means are transformed into mental structures of consciousness, developing and changing it. This is the connection of one's own essential mechanisms of development with the movement of the individual in society. In fact, as L.S. Vygotsky pointed out, personality development is not socialization, but, on the contrary, individualization, since in this process the personality becomes more complex and acquires uniqueness and inimitability. So, the contradiction is overcome in the fact that, as E.V. Ilyenkov writes, "an individual should not "appropriate" ready-made results of cultural development, but only results together with the process that generates and continues to generate them, i.e., together with the history that creates them" [118, p. 331]. There is a process called "deobjectification", when a person, in his own activity, reveals the human efforts and mechanisms that led to the appearance of cultural objects. This is, in fact, quasi-research, quasi-creativity. But this "quasi" is relevant only from the point of view of the social value of the result. For the same personality, internally, this is true creativity. This thesis is very essential for the pedagogical process. She testifies that the attitude that prevails in pedagogy and psychology is fundamentally incorrect: as if the development of intelligence is a consequence of mastering ready-made knowledge, as well as the skills and abilities to use it. "In this case," notes F.T. Mykhaylov, "development will be minimal and random" [196, p. 111]. Instead, a truly developmental education consists in the fact that a person is not presented with a ready-made object of learning, but a special educational situation is created in which the subject has his own

task and his own creative activity, aimed at mastering the medium and the situation as a whole. L.S. Vygotsky wrote about this: "Only when a person masters this or that form of behavior does he rise to a higher level" [69, p. 226].

An important problem is the relationship between the development of a complete personality and separate mental structures. This is, in fact, a question of the ratio of the whole and the parts in development. Theoretically, thanks to dialectical logic, it is solved quite easily: "The development of each individual function," Vygotsky notes, "is a derivative of the development of the individual as a whole" [69, p. 237]. So, it is clear: the development of personality is decisive and anticipatory in relation to individual mental structures and mechanisms. It is clear that only the study of the development of a complete personality can explain the peculiarities of the development of its parts, and by no means the other way around. The same applies to pedagogical management of an individual's development: a decisive and predictable result of education and upbringing can be achieved only through interaction with a complete personality, but not in the way of influencing individual mental functions.

This contradiction, however, is quite acute in the field of practical-psychological and pedagogical. Indeed, if we assume that personality is not innate, but emerges, it is necessary to recognize the presence of a certain period of the child's development when personality is not yet there. Here, the development of each individual process is crucial, and the derivative of their development will be a complete personality. It is clear that this logic requires peculiar system-experimental work and pedagogical activities (teaching and education).

Personality development consists in the organization and integration of a person's inner world. This is the way to oneself, the way of self-discovery and self-awareness. Strictly speaking, mental development becomes personality development only when it begins to be a reflection of a person's own experience. From this moment on, a person himself determines the direction of his own development, controls it and bears responsibility for it. This is what modern psychology calls self-development.

But at the same time, personality development cannot be reduced to reflection. In fact, and S. L. Rubinstein wrote about this very deeply,

personal development is carried out exclusively in the sphere of active interaction of a person with the surrounding world.

The solution to this contradiction lies in the simultaneous "maintenance" of these two lines of development. A person who focuses on himself, withdrawing from the world, is a disharmonious personality, and his development is deformed. But a person who is not capable of deep reflection and self-regulation is also disharmonious and superficial, irresponsible and unpromising. After all, such a position leads to insufficient self-regulation and a crisis of responsibility. In the end, the whole personality can be reduced only to external manifestations, representing a simple set of social roles-masks.

The continuity of personal processes means that in each period of its existence, a person should be considered as a result of past existence, its true nature is based on the history of development, is a derivative of this history. The experience that a person acquires during his life journey is decisive. Therefore, the personality, its actual present state, and its future can be understood and explained based on the history of its development. This provision is very widely used in certain areas of practical psychology, especially in psychoanalysis. Its absolutization leads to the acceptance of the thesis that an individual's past determines his life path (Z. Freud and A. Adler). However, life experience and scientific facts indicate that a person, the patterns of its development and forecasting the future, in fact, cannot be understood only on the basis of experience and the past in themselves. In particular, it has been proven in cognitive psychology that the reproduction of material from memory occurs only in the context of the current situation and current problems. Moreover, the reproduced material is not pure as it was remembered. He himself is different, as a person sees him now. Practical psychologists and psychiatrists often encounter this phenomenon when investigating premorbid conditions: not only the patient, but also his relatives interpret the past from the point of view of the fact that the person became ill. It is as if they are looking for confirmation of the development of the disease in it (or, on the contrary, they interpret it as if there simply could not be any disease. This is in the case when relatives do not accept the patient's painful condition). H. Allport, debating with psychoanalysts, established the presence of so-called "autonomous complexes" in humans. These neoplasms of a motivational nature are formed in a person at a certain stage of life and are

completely unrelated to the history of development. At least the functioning of the autonomous complex and its emergence is completely determined by modern human life.

The listed and some other contradictions in the interpretation of personality development emphasize the complex and ambiguous nature of this process.

The analysis proves that personality develops in the form of formation. It is this concept that reflects the essential features of this process to the greatest extent. The term "formation" is most often used as a synonym for "development" or "formation". Meanwhile, in the theoretical researches of O.F.Losev, we find a careful development of this concept as such, which reflects the specifics of development not in general, but only of individual complicated systems, to which the individual belongs. Formation, according to Losev, is such a form of development, "when new and new qualities emerge from simple quantitative maturation, incomprehensible if the previous quantitative maturation is understood only in abstract quantitative terms" [156, p. 432]. So, development is relative to certain structures and systems occurs in the form of the formation of quantitative and qualitative structures.

Formation, defines Losev, "is a continuous process of change, when not a single point can be established that would violate the continuous continuity of space" [156, p. 250]. Any deviation, even a person's mental illness, should be considered only in the context of a holistic process of becoming. A person's life, writes Losev, "is first and foremost formation... Life formation cannot be made up of only discrete points. Motion is not the sum of fixed points at all. This, as mathematicians say, is a continuum." Further, the philosopher draws attention to the fact that "in order to become, one must first be something, and this "something" must remain unchanged in the process of all change: then what changes, if there is nothing constant?" [156, p. 432] This is a very important and deep thought, and O.F. Losev returned to her many times, formulating differently each time. Thus, the concept develops and deepens. According to the fundamental rule of dialectics, he explains elsewhere, becoming can only take place when there is that which is itself becoming and which remains unchanged in all its changes that actually take place. "As soon as this "what" breaks down and changes in its essence, it can be said that its formation has also stopped, the

formation of something else has begun" [156]. This observation makes it possible to understand and perceive the entire continuum of human development in a different way. If we proceed from the fact that personality arises, exists and disappears, we should, following Losev's position, recognize that we have not one and only one, but three different processes of human development. The development that gives rise to the formation of the personality (before its appearance), and the development that continues this process in completely different forms (after the death or complete destruction of the personality). Unfortunately, this opinion is not reflected in psychological studies of personality, even in genetic psychology and cultural-historical theory. It seems to us that it can open a fundamentally new and productive way of research in the future.

So, Losev concludes, "personality is first of all some unchanging unity that seems to exist by itself without any change" [156, p. 73]. However a real personality is a historical personality. It is constantly changing and becoming. This is what our logic of personality research is based on: it itself, as a whole, always exists and is unchanging (because when it is not so, then what happens), at the same time it is constantly and eternally changing and developing along certain lines of development. We have already said above that each of these lines represents a separate line of development of the entire personality. Now it is worth adding: this very formation provides two essential and, at first glance, opposite things – it determines the single movement of the personality while preserving it as a whole and unchanging unity (it is unchanging only in this wholeness and unity).

Thus, O.F.Losev's understanding of personality formation is that it is a constant movement of something single, integral and unchanging. Despite the fact that it is, at the same time, a constant flow and change within the limits of individual lines-manifestations. The characteristic of becoming as self-movement and self-development is also essential.

We can give here only a general description of the main lines of personality development, since, as you can easily see, they correspond to the directions of personality research. At the same time, we would like not to make an analytical review of research and theoretical constructions, but to outline a conceptual vision of the life movement of a complete personality along separate lines of development. So, what is the development of an individual's relationship with the outside world

(first line)? If you answer in one phrase – the development of this sphere consists in overcoming the rigid opposition "subject – object" or "subject – another subject" and achieving a state of harmonious unity with the world without losing subjectivity, that is, without "dissolution" in this world. It means becoming as a dialectical movement along a spiral and negation of negation (B.M. Kedrov, 1983). Before the emergence of personality, the human organism is not in subject opposition to the external world – an object, since it is itself an object among other objects "dissolved" in this world. The birth of a personality means the emergence of a subject, that is, a reflective, responsible, aware and passionate person. People who accept themselves decisions, guided by their own motivational experiences, and builds their own behavior. Her movement now becomes a way of life. Subjectivity, in addition, presupposes detachment, demarcation from the surrounding (from the "non-self"), turning it into an alienated object. This is how personality began in history, this is how it begins ontogenetically in every person. The well-known crisis of three years (the "I myself" crisis) has precisely the above-mentioned transformations in its inner essential content. At first, for a child, O. M. Leontiev testifies, the attitude towards people and objects is undifferentiated, that is, it does not separate one from the other. But these attitudes in both cases have a pronounced objective, detached character. In the future, these attitudes become different, but their objectivity remains. During further ontogenesis, relationships with people change in some places, overcoming alienation begins to appear in them, and sometimes equal "human" subject-subject relationships can arise with individual people. With the rest of objects and phenomena, objectivity is most often preserved throughout life. But the real progress of the formation of the personality, its exit to the higher turn of the spiral is connected with the possibility to overcome this alienation in oneself and to "allow" the world to one's self, to enter into a relationship with it, which M.M. Prishvin called "family attention". The fact that a person is capable of this, we know from our own experience – each of us at least once in our life felt this kinship and deep insight into the world.

This experience proves that such a state is indeed a higher level of human existence compared to alienated objectivity. It is fundamental that one or another attitude of a person to the world is determined by his own activity, his actions. The starting point here should be the

philosophical and methodological position of E.V. Ilyenkov: "Not only thinking cannot exist without matter, but also matter cannot exist without thinking" [117, p. 420].

As a line of formation, the development of personality expressiveness can be imagined as follows. The expressive activity of a person's inner world causes the vital movement of an individual, in which he encounters social reality. Social behavior is built as the assimilation and fulfillment of a large numbersocial roles. The so-called role layer of the personality structure is formed. Role behavior, for example, professional, can be quite strong and rigid, stifling expressiveness. Then the personality involutes.

If we talk about professional activity, then in this case we have the essence of mastery. A professional craftsman who does not just correctly perform labor operations: he embodies his own personality in them, as well as in the product of work. In general, it makes sense to talk about a special human need to embody oneself in this world. The development of personality is largely determined by the development of this need. Traditionally, in philosophy, this need and the activity generated by it is described by the category of "objectification". In his activity, a person constantly seems to "dissolve" cultural and natural objects and phenomena, thus transforming them into his own personal essential forces (deobjectification). But she embodies these forces in the outside world. A person objects himself as an individually unique social whole. "The result of its objectification is its work." A work is what makes our life and our personality eternal (and "work" here should be understood broadly, it is, in fact, everything that a person leaves behind). "The true existence of a person... is his action," Hegel wrote, "in the latter individuality is real ... only the work should be considered its true reality" [78, p. 232].

The development of expression – the embodiment of personality is an acute pedagogical problem. As O.S. Arsenyev convincingly showed, in the pedagogical process the goals of creative development (expression, objectification) and the traditional tasks of education and upbringing are antinomic [19]. The pedagogical system as a reflection of the state system aims, first of all, to adapt children to the existing social conditions of life. This happens due to suppression of expressiveness (a layer of social roles suppresses expressiveness). This achieves the child's organic adaptation to social reality, but at the same time blocks

creativity. Solving this dilemma, developing the creativity of children and adults remains a global problem of modern education.

Let us now consider the line of development of personality integration. Progressive changes in the system of human relationships with the outside world lead to the fact that the individual turns into a subject not only of his own behavior, but also of his own inner world, that is, himself. The transformation of a person into a subject of his own life and his own formation means a certain doubling of the development process. After all, there is management and control by the individual himself over developmental processes and mechanisms. Self-development is inherent in a mature, integrated personality. What is this movement? An important component of the line of integration is the expansion of awareness, that is, approaching the balanced and integral inner world of the individual (the self, or "syntonic ego" – in the terminology of K.-H. Jung). Most foreign personality theorists see the essence of integration precisely in the expansion of consciousness.

Another essential component of the integration process is the emergence of a sense of belonging and intrinsic motivation. This motivation means that the individual seems to carry the reward for performing certain actions within himself. A person who acts gets satisfaction, feeling his own competence and self-respect. This gives rise to a sense of one's own effectiveness and a sense of oneself as a source of change in the surrounding world. Such motivation creates a sense of personal involvement of a person in what he does, and external rewards become not so important and seem secondary. We consider the development of intrinsic motivation and, accordingly, a sense of belonging, not only the consequences of the processes of integration of the individual, but also important conditions for the development of these processes. Thus, it can be assumed that the weakness of integrative processes at school age is caused by the orientation of the assessment of educational or behavioral actions of students almost always on external rewards.

Research shows that external rewards block the development of a sense of belonging and inhibit intrinsic motivation, and the individual remains internally indifferent to his actions and successes. But the delay of these processes also means the delay of the integration of the personality in general. Moreover, in such a pedagogical situation, another essential element of the unification process is not formed. We

mean responsibility and, in particular, integral locus of control. Externally oriented, stimulus-reactive pedagogical management of development gradually accustoms the individual to the fact that external conditions, and not internal aspirations and experiences, are decisive in life and activity. This is how externality, irresponsibility arises. This greatly harms the completeness of the personality, because the lack of responsibility means that the inner world is not realized and not formed by a person.

Traditionally, the beginning of the ontogenesis of a person is associated with the physical birth of a person, although in this case, at least, domestic psychology stipulated the thesis: "one is not born a person – one becomes a person", pushing the birth of a person even further in time (OM Leontiev generally spoke about "double" birth of personality). Empirical studies of the behavior and features of the development of the human embryo allowed us to make generalizations at the current stage, according to which it makes sense to say that "fertilization is the initial stage of the ontogenesis of a person. However, it seems to us that this moment, in fact, cannot be considered initial, since in this case the original bio-social unity of need as a factor of preservation of real continuity in the existence of an individual as a representative of the genus "man" is broken.

The first stage of ontogenesis personality, we consider a special social situation of interaction between two loving persons of the opposite sex, which is ultimately aimed at creating one's own continuation, represents the most vivid and complete manifestation of need as a universal genetic "unit" of the existence of a human being. This is a unique case of its objectification, which coincides in time for two people. In love relationships, all the essential signs of the personality, its life meanings and values are most openly, deeply and vividly reflected; there is mobilization and activation of all spheres, including the actual organismic one. It is here that the optimal conditions for self-expression and, at the same time, the expression of all those depths and layers of human culture, accumulated over generations, which are the carriers of each of these loving beings, are formed. Manifestation – and embodiment. This is where a desire, a plan, and an image of the future existence of the result and the organic continuation of love – a unique creation (work), which is the future personality – is formed. There are numerous (albeit only primary) empirical data obtained in various

fields, unfortunately excluding psychology, about the great importance for the development of the future child of the features of the relationship between its parents, which preceded its conception. We will examine this issue in more detail elsewhere. The relationship between two loving persons is an important component of the objectification of a need and, at the same time, a means of its continuation in a new being. On the other hand, the specifics of this relationship have a decisive influence on the implementation of the next stage – actually, fertilization. They not only mobilize all forces and truly "open" individuals towards each other and... towards a new being, their joint creation. In these relations, if we consider the purely psychological limits of the phenomenon, a special mental state of people arises, and it, according to the mechanisms inherent in the existence of any state in general, affects the activity of all systems of the being, including the biochemistry and physiology of the sexual system. The mental state of future parents determines the next stage and indirectly determines important features of the child's further development. Thus, the first stage of ontogenesis takes place, at first glance, without a given personality. But he is, in many ways, decisive for her. Time is connected here: the past, present, and future are concentrated in moments and the future becomes decisive. The ideal (psychic, social) has much greater power in this case, it becomes biological, being embodied in material processes and ordering, structuring, directing them. We see that we are actually talking about an important mechanism of ontogenesis: need actualizes the inner (ideal), gives it the qualities of a valid real force, which, united with a similar force of a loving being, decisively changes material processes. In addition, the factor of information is very important in this mechanism – the dynamics of needs ensure the transmission of historical and hereditary information through parents (updating in their special state) into the future through the child. The described mechanism of ontogenesis ("need", -initial intention -> relationships in a special mental state, - "social" -> sexual contact, - "biological" -> a new creature, - "personality"), as can be seen, is such that directly contradicts the mechanism discovered by Freud and the mechanism of internalization. In contrast to Freud, we believe that what is truly primary is precisely the social, the contact of two personalities, that is, exclusively cultural and historical beings. As for internalization, we can note that what is primary and initial in the birth of a personality is not

internalization, but exteriorization (if we use this terminology), i.e., the manifestation of the inner world (internal conditions – S.L. Rubinstein) and the design in this turbulent reveal a fundamentally new formation. This means that personality begins with love.

The second stage of ontogenesis is, in fact, fertilization. We already see that this is not an exclusively biological, natural process, because it is rooted in the previous, social relationship and through it, in general, in all generations, in history as such. The fertilization process itself is an interesting model for understanding different levels of interaction. After all, it actually represents interaction (that is, social) at the level of cells. Two "units" of life, male and female, interact. At the same time, the fertilization process is not the only act of interaction of "pure" units in nature (after all, we are used to the fact that "unit" is necessarily something abstract, not existing in reality as a fact). The interaction is caused and directed by the need of each of the loving personalities, because neither the male "unit" nor the female "unit" will by themselves give continuation, they must become one. (It is important for this presentation that before the egg and sperm form a zygote (become one), two individuals become one for a certain time, both physically and psychologically). As an interaction, the phenomenon of fertilization should be considered, not surprisingly, a social phenomenon. It is complicated and conflicting in its own way: just imagine – out of 300,000 spermatozoa, only 1 (!) enters the egg cell. So, there is selection, and this is also an aspect of interaction. In this case, it is not so important which agents influence the interaction and determine it. Yes, here these agents are mostly purely chemical. But this interaction does not cease to be so. And if we talk about "equals", we should not forget that the interaction of adults is also under the influence of chemical agents (for example, pheromones) and physical agents in general – because visual and auditory stimuli have, ultimately, a purely physical, wave nature . Thus, the first two stages take place "under the sign" of interaction aimed at the birth of a work.

The social aspect of need clearly prevails and (back to Freud) the social in no way suppresses, does not "squeeze" the manifestation of the natural. On the contrary, it is the only possible way, the way of this manifestation.

It may seem that we started the consideration of ontogenesis long before personality appears and becomes a fact of existence. But it only

seems so. Love relationships, generated, including, by the desire to continue (the desire to have a child), cause the emergence of expectations. These are desires, images, dreams, planning; and they already have a future personality. Yes, in the real, purely material processes described here, it is not there yet, it is an expectation and a potential, but this, no matter how strange it sounds at first glance, does not make it less real! Existential psychology proves very thoroughly and with arguments that the inner world (Eigenwelt) is no less real for a person than the external, material world that surrounds him (Umwelt). This is her world, which means it is the most real. And the child that already exists in the worlds of loving beings is not a phantom or delusion, it is the very reality for these people: it exists. And this means that the beginning, indeed, is right here, and there is no contradiction: after all, when talking about a mature personality, we very clearly and boldly say that the main thing in its signs is not the appearance, but what is behind it, that is – ideal, psychic. So why shouldn't this logic work in this case? After all, when loving people think about their future child, they... feel it, experience it, somehow relate their life to it – future, plan its future, think about its name, gender, where it will live, how it will be raised, how their life will change etc., etc. This is the whole world, and the external behavior becomes as if she, this child, already exists.

Another important remark regarding the first two stages of personality ontogenesis. Undoubtedly, in these processes, chance has a certain importance (acquaintance and contact of two people, their social characteristics and affiliation is, so to speak, the macro level of interaction; the environmental conditions inside the mother's body, hereditary traits, the genotype as a whole is the micro level), but no in which case we cannot say that here order is born from chaos. In fact, everything is ordered – socio-historical experience, organismic tendencies, and parents' genotypes. That is, orderliness is born from orderliness. It is certainly new, but it is, at the same time, a continuation. Therefore, the currently fashionable expression "order out of chaos" does not refer to the genesis of the human being at all.

The third stage represents the process of embryogenesis (prenatal development), which includes two phases – the development of the embryo and the fetus. At this stage, significant changes take place, and it is not for nothing that it continues for quite a long time. Need appears here for the first time in its new, individual form. Its manifestation

marks the beginning of the self-development of a new individualized living being. In recent years, psychology has paid quite a lot of attention to the study of the prenatal development of the human child (mainly, it is about foreign empirical works). The facts obtained in these studies testify, in general, that mental functions appear in a person already in the intrauterine period (sensory, emotional, rudiments of behavioral reactions). For us, in the context of applying the genetic modeling method of analysis, it is important to note the following. During this period, the variety of forms of interaction of the developing human being increases dramatically. The need, as already mentioned, prompts self-development, which is realized, on the one hand, in a chronologically balanced and structurally determined sequence of the establishment and beginning of the development of organs and their systems, which, when functioning, give rise to mental reality itself. This chronological and spatial arrangement has long been noticed by biology, but its mystery remains unsolved. Where does such a clear synchronicity come from? We believe that the answer should be sought by combining this phenomenon with another, also noticed a long time ago: according to the Haeckel-Müller law, embryogenesis is a short repetition of phylogenesis. Again we are dealing with the information branch of need, now as an independent individual force: synchronicity is due to historical roots and experience. In fact, a new form of manifestation of need leads to the differentiation of the initial unit of a new life (zygote), the process of complex interaction between individual components of a structured integrity that is born and develops begins.

This integrity is, at the same time, in a complex interaction with the mother's organism. And here all channels of mutual relations are already involved – chemical, physical, biological, mental. Birth and development appear to be synchronized in time with interaction with another being – the mother. This is the first level, actually, of social contact, because the "contactee" is a social being, a mature personality. Perhaps a qualitatively new level of development of the class of mammals is connected precisely with the fact that the child very early acquires a literally organic and completely safe experience of social relations – inside the mother – with her. Apparently, this is not realized and not understood by the fetus, but experience in some forms is certainly acquired and remains: and the joint use of necessary substances, and neurointeraction, and much more. At the same time, the

mother also acts as a mediator of the first acts of interaction of the person maturing in her with the external environment. Empirical data show that around the sixth month of prenatal development, the child hears sounds and reacts emotionally to them. And she hears, first of all, her mother's voice, and its intonations and volume turn out to be correlated (biochemically) with the mother's mental state. This is how readiness for further interaction appears.

The described stages of ontogenesis are a process of interaction between phylogeny and ontogeny, and a specific transition from the first to the second due to need. This is the beginning of personality (in the form of an individual), the mechanisms of which are related to the functioning of need as an initial force, which determines the combination of heredity and interaction. The social is primary, and therefore the psyche is also primary (because the social is always a product of the psychic). Thus, we cannot talk about the emergence of personality as a separate act: it has deep origins in phylogeny and heredity, which are transmitted through the loving interaction of the parental couple. In addition, the personality "goes through" a number of specific interactions and metamorphoses during prenatal development. Therefore, it "begins" long before physical birth, and therefore a newborn child necessarily has a certain history of its existence and development. And, most importantly, this is a human child (personality) from the beginning: the world of culture is the object of its interaction already in the prenatal period, and, at the same time, it itself is the object of the influence of this world already in the first two stages of ontogenesis. It actually begins as a work of human needs, people.

We consider the development of the child's readiness for life in the world outside the mother's body to be an interesting consequence of this complex path. She is ready for this not only physically, but also psychologically. In recent years, Western psychology has received many facts testifying to this readiness. Let us list some of them [333]. Newborn babies, born just a few minutes ago, stick out their tongues and open their mouths wide, imitating their mother's movements. Complex facial expressions, expressions of joy, fear, surprise are also imitated (so far, this is unconscious, but it is there!). Imitation turns out to be an important innate quality that contributes to the establishment of a complex two-way interaction with the mother. From the beginning, babies focus purposefully on the mother's facial expressions, her

intonations and movements. Their reaction is initially adequate: gentle and soothing actions of the mother cause a smile and pleasant, gentle sounds ("murmuring"). The impatient tone and threatening facial expressions of the mother lead to the appearance of an expression of fear and despair

As soon as he is born, the child immediately prefers his mother's voice, defining it according to those features that he established while still in his mother's womb.

In general, familiarity with foreign sources attests to revolutionary changes in the empirical study of the psychology of newborn children, and all the data testify to one thing – not just a living being of the mammal class is physically born – a person, a personality, is born. She is ready to meet the world, and it seems to us that this meeting is welcome. In the light of what has been said and new empirical data, we look skeptically at the tragic and dramatic intonations of the "birth crisis" description. To put it mildly, the tragedy is clearly exaggerated and negatively metaphorized. It hurts for the child to come out into the world, and it screams a lot at the beginning... But does it really hurt? And doesn't she scream, declaring her right to this world and leaving in it with this scream the first imprint of a new self? It seems that the technique of experimentation (Western psychology) will allow us to answer these questions very soon (for example, the degree of acuteness of pain sensations, or the parameters of emotions), and for some reason we imagine that we will not find any strong tragedy – if only a living mother would be nearby!

Maria Montessori very aptly called the child who came into this world a "spiritual embryo". The first real contact of the child with the outside world... "In this case," Montessori notes, "we can talk not just about a difficult, but about a decisive moment in a person's destiny. It is during this period that forces awaken in a person, which will have to direct the large-scale creative activity of a child – a spiritual embryo" [199, p. 123]. But these forces must be evoked, and in this case we should talk about the fact that we, the people surrounding the child, evoke them. "Social insemination" – yes, albeit somewhat metaphorically, but precisely, we call this important stage of the ontogenesis of the personality. Yes, the child turns out to be prepared for this stage, in addition, right from the beginning of his life in the world, the cognitive sphere develops violently (explosively!) but that's

allis not an entity. Necessity gives rise to another new form of interaction, and a surprising form. Although the child becomes an autonomous being, it retains all the forms of interaction that existed before birth. And the physical separation from the mother does not at all mean the termination of the interaction that was there – it remained in the experience, took on new forms. But the need begins a new round of the spiral – the appropriation of the world begins (appropriation as a transfer into one's own).

The new form of interaction is a direct and open relationship with other people, first of all with parents. This turns out to be decisive. The need begins to branch into needs, "meeting" with the corresponding objects, and these needs are immediately human. This is the first. Let's emphasize – all the needs of a newborn are immediately human, which is why they become socially regulated needs.

The second is the world of relationships with people. The mother shows anticipatory initiative – she sees what is not yet in the child's behavior, but, reacting to the actual behavior, correcting it, showing the child with her state, attitude, speech – what is expected of her, she actively shapes the movement and, therefore, the personality itself. The mother involuntarily puts the child in a dialogic, active position in relation to herself, because otherwise, it turns out, is simply impossible. Personality is revealed in interaction and is formed in it. Yes, it is initially self-intentional, it is self-developing, but very quickly it turns out that it is necessary to go together. And it is pleasant, effective, interesting and convenient. The child very early shows the joy of contact, because only in him it is carried out. Actively, sharply directed at adults, the child appropriates social experience, imitating their relationships, but in the aspect of these relationships, the child enters a subject-centered position and treats adults "from himself", as from the center of activity, and it is here, in in this process, she becomes a real person as a subject for the first time; the self begins to form. In this sense, from the point of view of the social position of the child (it is still impossible for her to realize attitude of an adult to oneself, but it is already easy to fix relationships between close adults), we say that the interpersonal relationships of close adults are more essential for its development – because they are the object of appropriation. This is more important from the psychological background of development – it is adults who can create an atmosphere of love. The child actively covers the world,

"capturing" and accumulating impressions that make up the experience and are the basis for the inner world. But this world will not arise without language. A being becomes cultural due to the fact that it is "fertilized" by this world indirectly, through a symbol. The main ability of a person – to symbolize the world – is learned through contact and communication with another person. This is how the inner world is created and the self emerges: a socially reproduced function of the interaction of adults who were the child's ancestors. The emergence of I means that the child has understood the essence of other people as I, he entered the context of this life. The course of the child's life acquires a reflexively and subjectively colored state. The expression "I myself" means that the child has realized himself and the balance of the dichotomous pair of biological and social in need has been disturbed. This means that social fertilization has taken place. Now there is a need for autonomous interaction with the world – because the development of the psyche is not carried out in any other way. And the child actively reproduces the world using cultural means, primarily speech. This is the way of growing into culture, and we believe that it is most adequately understood by the cultural-historical theory. The most important thing that happens in this case is the emergence of new psychological organs – special interfunctional systems (Vygotsky called them higher mental functions). Personality is structured. I wonder what that means in reality. We will show this phenomenon only on the example of the cognitive sphere. In fact, the emergence of a psychological organ means that the mental function ceases to be tied to a certain sensory system. It is very primitive and incorrect when perception, for example, is associated only with the relevant analyzer: personal perception (perception as a higher mental function) is carried out with the help of the whole psyche, that is, the personality.

This stage of ontogenesis continues until adolescence. From the point of view of the original genetic contradiction – biosocial need, it is a continuous period of accumulation of sociality. This period is very well researched, and we will not dwell on it in detail, but we will note that at the end of it, his need again "comes on stage" and in a completely new important role.

In adolescence, the integrity of needs is revealed again in a unique and amazing synchronization of biological and social. Puberty means the "exit" of an individual to an essential stage of development –

readiness for one's own continuation: through a love relationship with another person, need can now materialize into a work – another organism – and continue. This cardinal readiness, it turns out, exists in a single ensemble with rapid psychosocial development: the emergence of developed self-awareness, the assimilation of social roles, readiness for life self-determination, the presence of prospective life plans – this is far from a complete list of essential psychological neoplasms of the age period of development, which coincides socially in Western culture with the child's education in middle and high school (adolescence and early youth – in the conceptual thesaurus of domestic science). Again we meet with a unique unity of needs: we should not argue about what is more important in adolescence – sexual maturation or the emergence of essential psychological neoplasms. They are balanced and coordinated in time and space, because it is about a very responsible thing: the readiness to continue oneself as a being coincides with the readiness for a full-fledged and effective social existence – a life path. Only this unity can ensure the "spiral" of the movement of need, when each next step means development, another, higher step. We came to what, in fact, we started with – to the reproduction of our own kind. Personality in a real sense becomes the subject of one's own life. This stage turns out to be so important that we will consider adolescence and early youth in more detail and try to do it from the point of view of geneticpsychological.

Moreover, we do not consider the further development of the personality to be ontogenesis in the true sense of the word. A person himself determines the further movement, an interesting "dialogue" of personality and needs arises, which only a mature person realizes as such. And this is not ontogenesis, but one's own life path and the formation of oneself. Completely different mechanisms work here, and that is why Vygotsky was right when he believed that the beginning of adult life is connected with radically different processes and is not subject to the categories of age and child psychology of the individual.

Personality: development forecast and life path

A scientifically based, balanced prediction of the further development of a child's personality is a question that one way or another faces a specialist in the field of practical age psychology. Since this problem is almost not considered within the framework of scientific psychology, the practitioner must create his own concept of the future

development of the client each time, which contains a real conglomerate of individual provisions of various theories, his own experience and empirical psychodiagnostic data collected during work with the individual.

Even L. Vygotsky in his work "Diagnostics of development and pedagogical clinic of difficult childhood", written in 1931, recognized the prognosis of the child's further development as the main task of age-related psychological counseling. Since then, this problem has not been studied scientifically, although it cannot be said that it was irrelevant. We believe that the main reason for the lack of attention to the problem of scientific forecasting of the mental development of an individual is caused by the general state of crisis of theoretical knowledge in the field of personality psychology and its development [72].

A variety of theoretical schemes, each of which claims absoluteness, the ambiguity of concepts, terms, and, most importantly, the continuation of the dominance in psychology of preformist and epigenetic ideas, based on views of development as a simple unfolding of already existing foundations, all this, and also the clear speculative nature of individual constructions, which simply reflect the researcher's own ideas, having no relation to reality, makes serious work in the field of forecasting impossible. Of course, all these questions cannot be solved at once, but, in our opinion, there are already reasons to, at least, raise the problem of scientific forecasting in the field of developmental psychology.

These grounds are provided by genetic psychology. Understanding this branch of knowledge as a system of views that determine the formation of ideas about the psyche as a developing one, we already define as the subject of research the occurrence of mental phenomena, their passage, formation in life processes, functioning and recovery after the loss of their effective functions. In other words, genetic psychology is designed to study objective processes of the emergence of new mental phenomena, the formation of new mental mechanisms and knowledge about them based on the found perspectives and (or) development projects.

The very creation of perspectives (projects) is an organic component of the research process. So, forecasting is somehow woven into the subject of genetic psychology. The theoretical understanding of the implementation of the genetic approach, in particular in the field of

experimental learning, made it possible to create a system of principles for the construction of experimental psychological research, among which the most essential are the principle of historicism (unity of experimental and genetic lines of research) and the principle of design (active modeling of mental forms in specially created conditions) .

At one time, we already noted that the original promising idea of the development of genetic psychology is the study of the psychological laws governing personality development throughout life. Now it is possible to take the next step and approach the prediction of personality development as a scientific problem.

What is genetic psychology research? Logic of the experimental-genetic method involves not just fixing the features of certain empirical forms of the manifestation of the psyche, but also active modeling and reproduction of them in special conditions. This helps to reveal their essence, i.e. the patterns of emergence and formation in the ontogenesis of certain psychological functions. The theoretical level of the study of mental processes in the experimental-genetic method is specially set through the construction of the content-operational aspects of the subject activity. A specific feature of such construction is that the model created by the researcher for the purpose of knowledge corresponds to the real internal structure of the mental process itself. This means that the studied mental process or function is first constructed in the form of a model of a certain activity, and then actualized through special methods of organizing the subject's activity.

The criterion of qualitative psychological research is the degree of conformity of the actual process of its model. Thus, the experimental-genetic method includes ways of building higher mental functions, which are assigned by the subject in the process of transformation of a certain content. At the same time, the transformation itself combines genetic and structural-functional moments of objective reality and sets similar structures (in the form of methods of analysis) of the mental. In fact, we are still very far from both forecasting and controlled development.

The application of the experimental genetic method at the moment made it possible to obtain a certain scheme: if we have general empirical and content-theoretical patterns of the development of the psyche before

the “intervention” of the researcher, we know the main patterns of this process after the “intervention” (we take this knowledge from previous studies and from the literature), and we also know the main mechanism of the development of the higher psyche (interiorization – exteriorization), we can really model further development. All this, however, does not apply to forecasting at all: and regarding the past (“tointervention”), and in modeling the future (“after the intervention”), the genetic psychologist relies on general theoretical knowledge, and not at all on the knowledge of the specific individual in front of him. This inherently nomothetic approach is quite admissible for purely scientific studies of general regularities. However, it gives almost nothing for psychological practice, where both analysis and prognosis should be built in relation to a specific child.

Genetic psychology will be able to provide a real tool to the practicing psychologist if it, without losing its subject, principles and methods, relies on the unique individuality of the child – the carrier and subject of these laws. Previous achievements of genetic psychology make it possible to pose this problem as acute and relevant. Moreover, theoretical ideas about an alternative nomothetic, ideographic approach are being developed quite actively both in world (H. Allport) and in domestic psychology (L.S. Vygotsky). It should be mentioned the early pedological works of G. Kostyuk, in which an idea about the subject of psychology was formulated: it is a unique integrity as a specific personality trait. A similar position was advocated by O. Lazursky, developing the so-called “clinical approach” in personality psychology.

Thus, genetic psychology (and the genetic modeling method as its basis) is that branch of psychological knowledge that can provide prediction of personality development, but only under the condition of implementing the ideographic approach (in domestic psychology, this term corresponds to the phrase “clinical approach”). Let us note, slightly deviating from the topic, that the reorientation of genetic-psychological research in this direction is caused not only by the need to solve the problem of scientific forecasting in psychology. Since the only field where genetic-psychological research is carried out is education, with the increase of experimental data, the question of what actually happens to the student, in relation to whom experimental-genetic research was carried out, becomes more and more relevant. From a scientific point of view, everything is clear: such works make it possible to establish important regularities of the genesis of higher mental functions. And the

student who went through this – what changed in him, what did he experience and how does his life path continue? Until a certain time, this question did not interest us, and the students were left out of attention. But that time has passed. In purely scientific terms, genetic-psychological research has given much, but it could have given even more if individuality had not been ignored. In a practical-applied aspect, these studies are very useful, because a psychologist-practitioner will take into account in age counseling the fact that the development of higher mental functions occurs as the appropriation of cultural means-signs in the child's personal activity. From this it is easy to conclude that it is impossible to understand the past development and predict the future, ignoring the social situation or considering it only one of the factors. But in reality, genetic psychology can give much more.

We should proceed from the fact that the problem of predicting mental development is, on the one hand, a component of the subject of genetic psychology, and on the other, a system-forming factor of the mental existence of an individual. The latter is, of course, an abstraction, since a person almost never predicts his own development. In fact, she predicts something else – achievements, life situations, living conditions with other people, features of the lives of her children, etc. This can be called "metaforecasting".

Any activity of an individual is closely related to forecasting: from elementary sensory-perceptual acts of reflection to complex personal actions when it is necessary to predict the consequence of a certain act. It turns out that the future determines the development of the personality much more than the past (this was insisted by such different authors as A. Adler, L. Vygotsky, H. Allport).

Determining the fact that forecasting is a necessarily inherent and universal factor in an individual's life is very important for setting the problem and tasks of forecasting an individual's mental development. From one on the other hand, the very phenomenon of forecasting should be investigated as a function of personality. On the other hand, we must take into account that the construction of a forecast of personality development must necessarily be based on the fact that the personality himself forecasts his life. In any case, "meta-forecasting" by an individual of his own life path should be one of the central subjects of diagnosis when solving problems of development forecast within the limits of genetic psychology. Such an opinion somewhat changes the

central aspect of the problem – the life path should be predicted, and only in its context – development. But it will be so only at those stages of personality formation, when she herself can determine this path. In connection with this, the forecasting of development in childhood should have significant differences. Here it will be a specific design of objectification, explication of various possibilities, including anatomical and physiological predispositions of the individual.

In this work, we can only identify some points that are actualized in connection with the prediction of mental development.

Forecasting involves a careful study of the individual history of development and upbringing of the personality. Not for the first time, A. Adler made an attempt to connect the past and future of an individual (attention to early childhood memories and, at the same time, "fictitious finalism", creative "I", "social interest" – that is, everything that determines life from the perspective of the future). The results obtained by A. Adler are very valuable.

Education, according to L. Vygotsky [70], is social mastery of the natural process of development. So, the history of upbringing will show us what has become natural and comfortable for the subject. In other words, this story will show us the origins and prospects of the character and individual style of the individual's activity. The German pedagogue O. Ryule noted that the development and formation of a child's personality is a single socially oriented process. Since over time all mental functions begin to work in the opposite direction, a sum of tactics, aspirations and abilities is formed, which outlines the life plan. This is called character, -O. Ryule notes. If all this is determined by the future, then we should definitely know the origins in order to predict the personality in its own future. But this is possible only from a genetic and psychological point of view: new formations of the psyche (abilities, character, etc.) are produced by the individual himself, when he strives for his future.

The subject of forecasting can only be a complete personality, and not its separate elements. Any ability can never be predicted by itself. The ability exists alongside personal structures, among which the most important are those that have not yet been clearly verified in scientific psychology. We mean mental qualities of a person. The well-known processes of compensation and overcompensation are completely impossible to explain if based only on abilities. We have to proceed from

the general desire of any individual for a full-fledged social existence. And only in this context it is possible to understand and predict the interaction of abilities. The well-known phenomenon of the restructuring of abilities in high school age, known in age psychology, is explained not only by the desire for social fulfillment and the fact that the future becomes a kind of "affective center" of the individual at this age, as L. Bozhovych noticed. The fact is that at this age, the mental qualities of the children themselves, as well as the people around them, begin to play a dominant role for the first time. It turns out that this can radically change the abilities of an individual.

On the other hand, a holistic approach to predicting personality development involves paying attention to anatomical, morphological and physiological qualities. We still need to explore and realize the real place and significance of these qualities in the life of an individual. It should be said that historically they "didn't like it", probably the most. Domestic pedology at one time allegedly decided on this important issue, but the authorities did not like it. Here we see the need to involve historical-psychological, genetic and even cybernetic research to solve forecasting tasks. At one time, H. Kostiuk said that education affects even the anatomical and physiological human resources [135].

The most difficult problem of forecasting, in our opinion, is concentrated in the plane "personality – social environment". In this regard, we can only note that this plane of forecasting tasks allows us to look at this problem in a completely different way. We believe that upbringing and learning as processes that initiate the development of mental structures will have their own explanation in the context of solving our problem. Thus, the zone of immediate development as a real space for predicting the formation of personality in childhood is a system of interaction between a child and an adult, which, in fact, prompts further movement. But this "hint" concentrates not only the image of the standard of development at this age, but also the knowledge of the individual genetic tendencies of a specific child. Thus, attention to these features of each child should become mandatory when predicting its development.

Another important problem in the context of forecasting is related to the time parameters of the dynamics of development. Nowadays, there are many studies of the psychological time of the individual, but they have a completely different look in the context of the problem of

prediction. The latter, as already mentioned, is an individual process. Therefore, the zone of immediate development should also become individual. What does this statement change? For example, the well-known "Piaget phenomena", which have been studied empirically, clinically, therefore – they are reliable and characteristic for a certain age. But what will happen if we replace the clinical-diagnostic method with a clinical-genetic one, that is, an individual-formative one? Hypothetically, it is possible to imagine that we will not only find these phenomena, but also be able to project their overcoming by each child. This will be possible if, in particular, we know the pace of development, which, of course, is individually specific.

Overall, our preliminary analysis shows that the prediction problem can not only be solved within the framework of genetic psychology, but also shapes other views on the development process in general.

We can outline the general picture of our approach to predicting personality development. First of all, it is necessary to outline the space of analysis: we are talking about a complete personality, which is in constant movement – formation. Next, we consider integrity not only as an attribute of an individual, but also as a system of its unity with the social environment, on the one hand, and with biological and genetic features, on the other. An essential component of this structure is a dynamic indicator of the time course of life. It is important to separate forecasting as a joint activity of the researcher and an adult personality from forecasting in childhood, when distant life prospects are not yet developed at the proper level and the prognostic function is not inherent to the individual.

The very activity of a researcher (one who predicts) should consist of such basic components as diagnostics (psychological, social-psychological, biological, genetic), design-reconstruction, design-perspective, modeling. It should be noted that these parts are consecutive in time, each subsequent one should serve as a basis for the previous one. Yes, the multi-component diagnostic system provides design-reconstruction. It means a peculiar excursion of the researcher into the past of the individual. The main goal of this movement is to establish the main genetic and dynamic trends of development. The trends found should be considered as a basis for perspective design. It is important to note that the trends found in the reconstruction process

are important but of limited importance. So, in this point, we fundamentally depart from A. Adler [3].

Perspective design should be based on the same indicators as reconstruction, but here social and age factors play a decisive role. It is especially important to keep in mind the personal factor itself (a person as such, who himself predicts and carries out his life path). Unlike reconstruction, there may be several perspective projects.

The model completes and specifies the project. In our opinion, factors of external social influence on personality should be dominant in people. The forecasting process does not end there, at least for a practicing psychologist. He must make a forecast, use his own activity (consultative and corrective influence), organize the activities of the environment (for example, teachers, parents), and carry out constant monitoring.

Finally, some considerations on the applied aspect of the problem. The following areas should be considered the most priority: professional selection, medicine, jurisprudence, teaching activities, family relations. In these fields, there is already a demand for prediction of personality development. Moreover, two forms of forecasting are important and interesting. The first of them can be defined as "prognosis-flow" – a probable prediction of the long-term development of a person in a certain field of his activity. The second form can be conditionally defined as "event forecast" – a probable prediction of human behavior in the event that an important, cardinal event occurs that changes the main parameters of this path. Thus, our employees worked in surgical clinics at the request of the staff, the essence of which was that some patients after a difficult surgical operation develop unusual forms of behavior, in particular, unexpectedly aggressive ones. We were faced with the task of predicting the patient's behavior after, say, amputation. We established that only general knowledge about extreme conditions, psychotraumatism, etc. is not enough for this. An individual forecast of a complete personality is needed, the procedure of which gives results with a high degree of probability. It is clear that each of the fields of application of probabilistic forecasting indicated here has specific features.

The question of what kind of success can be expected from a child or a young person (if it concerns university studies) is very relevant, first of all, in terms of application. After all, the period of time in a

person's life when learning is the main type of activity and the main measure of the individual's activity is significant. At this time, the personality is experiencing formative changes, which determine its future fate.

The trends in the development of the modern education system in Ukraine greatly exacerbate the practical relevance of the problem of predicting academic success. If earlier this question was most acutely faced by the student and his parents in the final classes of the secondary school and had the form of a purely specific question – whether a given child will be able to study at a university and which educational institution is the most suitable for him, now the educational system provides the opportunity to choose almost from himself beginning of education (specialized classes, schools, gymnasiums, lyceums, distance learning, home learning, etc.). Such a temporary "lowering" of the limit of choice leads to the fact that the child himself practically does not participate in it for objective reasons – the lack of at least some life experience and underdeveloped self-awareness. Therefore, the responsibility lies with adults – parents and teachers.

The key issue is the criteria used in choosing an educational system for a child. Usually these criteria are very far from the personality of the future student. They are determined, first of all, by social factors, in particular, prestige. But one way or another, the question of whether a child will be able to study in a particular school and how successful he will be, always arises before "interested persons". It also appears during admission to higher education institutions. But how are they solved? The practice of probabilistic forecasting of educational success of both children and future students has nothing to do with scientific regularities of educational activity and personality development.

Let's show it in more detail. There are three key points that are "involved" in any selection system (not only for training, by the way). Two of them are considered obvious, "axiomatic" and are not analyzed at all, and the third can vary. What belongs to "axioms"? Firstly, statement: if a person (child) enters this educational institution, it means that he really wants it. Does it have anything to do with predicting success? Yes, of course, because it is about motivation.

Second, the conviction that any educational system is objective in terms of evaluating educational success and flexible, and students are

absolutely passive. However, given the problems of forecasting, educational systems are in fact neither objective nor flexible.

Thus, we can state that the ideas about two of the three key points related to the prediction of educational success in pedagogical practice are wrong. A paradoxical situation arises: we cannot make a forecast without taking into account the essential points, but we cannot make it based on the ideas about them that exist. It is here that the need for an in-depth theoretical analysis of the problem becomes clear. This is realized when considering the third nodal point: what is essential in the child's personality for his selection to one or another educational institution? The logic here is very simple – selection means finding those students who have the qualities that will ensure successful studies. What are these qualities? Without a special analysis, we can say that during selection for any training, it is not about qualities at all. The existing level of knowledge (much less often – skills) of future students is studied. The higher this level, the more successful further training will be.

At one time (we mean the 20s of the 20th century), our country realized the groundlessness of such a forecast and a purely psychological criterion was applied – the level of mental development. Children began to be selected for studies based on IQ. The very measurement of mental development, as noted by L.S. Vygotsky, consists in the fact that "the existence of a connection between the level of mental development and the school performance of the child is assumed." Vygotsky [70] conducted comprehensive experimental studies, the results of which are indicative. He found that there is a high correlation between IQ and academic performance, but it is quite complex and controversial. Longitude showed a decrease in the level of mental development during education in children in whom it was initially the highest. It increases in children with an initial low IQ, and average indicators generally remain unchanged. Vygotsky experimentally proved that the phenomenon of academic success is not unambiguous and homogeneous. A distinction should be made between "absolute" and "relative" success. "Absolute" success is determined by two parameters – compliance with pedagogical requirements and comparison with other students of the class. "Relative" success rate is an indicator of the child's movement relative to himself, that is, this parameter records real positive or negative changes that occur in the

learning process. It turned out that these two forms of success are very different from each other and are subject to different patterns in their dynamics. Thus, "absolute" success is an external indicator and records the degree of adaptability of the subject to the educational system. It does not say anything about real internal changes, about the development of personality in education. Instead, "relative" success turns out to be a psychological correlate of real changes in the process of education and upbringing. We can state that the school records "absolute" success, and the education system in general is not suitable for considering "relative" success as the main thing. A question arises regarding our topic – what success rate do we mean when we talk about a forecast?

In his experiments, Vygotsky made an attempt to predict both forms of success, starting from the key factor, the IQ indicator. It was established that over a period of time, children with the highest intellectual development scores have the highest "absolute" and lowest "relative" success rates, the reverse logic was established in the group of children with the lowest IQ scores. One gets the impression that the forecast of success in its various forms can be built on the basis of IQ indicators. But it turns out that clearly defined groups of children are very heterogeneous both in terms of IQ (high, average, low) and performance indicators, and other, in particular, purely "external" factors drastically affect success.

It turns out that success in both forms of existence depends on which educational group a person falls into. Using two parameters (IQ and learning success rate), Vygotsky establishes regularities.

Finally, the experiment touches on IQ, and Vygotsky proves empirically, and then in general terms, that this indicator gives very little for the prediction of success, since it fixes the existing level of development and says nothing at all about further possibilities.

This is how the concept of the zone of immediate development arises as a special socio-psychological space of an individual in which he reveals his inner potentials in the form of cooperation with other people. Under certain conditions, they can turn into their own independent (current zone) properties. And Vygotsky considers this to be the key point of forecasting. And it is not IQ at all, but the social environment and the zone of immediate development that come to the fore as key factors in predicting academic success. For some reason,

Vygotsky's ideas regarding the social situation of development and the zone of immediate development were not developed in pedagogical psychology [70].

Success is an unconditional and important indicator of internal changes that occur with the student during the learning process. At the same time, the division of success into "absolute" and "relative" is very conditional and useful rather in a purely pedagogical aspect – it draws the teacher's attention to the fact that the student's own movement is very important. Now we can only point out that, unfortunately, this movement is not taken into account and not predicted. But only taking this into account will mean that success will be a manifestation and indicator of development. Needless to say, the unresolved issue makes it impossible to solve applied problems, in particular, forecasting. It should be noted: in fact, this issue is always resolved in practical pedagogy, and the way it is resolved determines all the real features of the construction of the educational process. At the beginning of the chapter, we depicted how student success is predicted in modern pedagogy.

H.S. Kostiuk, in our opinion, was the most accurate and careful when he expressed the idea of the relationship in which the processes of learning and development exist. This relationship acts as their unity. At the same time, learning adapts to the laws of development to the greatest extent, and development itself naturally activates learning processes [134].

The term "*connectivity*", which was used by H.S. Kostiuk, is very successful. This concept describes a complex and contradictory unity. If learning and development are connected processes, this means that they are not simply complementary. These processes cannot exist alone, they presuppose the existence of each other. At the same time, each of them remains independent and there is always tension between them. Therefore, the combination means contradiction and a certain conflict due to the presence of different goals of the "subjects" of this combination. Therefore, Kostyuk's surprisingly successful term requires further research and explanation.

What does this understanding of the relationship between learning and development provide for solving the problem of predicting success? First of all, let's recall how H.S. Kostyuk understood education:

"Education is the management of learning, that is, the educational activity of students, aimed at mastering knowledge, skills and other social values, and through it, management of the mental development of students, the formation of their mental, ideological, moral, labor and other qualities" [135, p. 75]. From this it is clear why the relationship between education and development is, in fact, connective: after all, the student is the subject of his own development, and this development is managed from the outside, through education. It is clear where connectivity arises as a tense contradictory unity. It seems to us that G.S. Kostiuk considered the connection between learning and development to be a defining characteristic of the pedagogical situation, regardless of what kind of learning it is. Another thing is that connectivity itself will take on a different color, depending on how management will be carried out.

Let's explain it in more detail. What is commonly called a traditional education system (authoritarianism, declarativeness, reproductiveness, lack of due attention to individuality) actually represents management. But this management here is aimed at manipulation and "suppression" of the student's subjectivity: it turns out to be simply superfluous and inappropriate, because the main thing is to clearly fulfill the teacher's tasks and meet the standards. Such pressure creates a form of connectivity, the main indicators of which are the student's desire to adapt to a rigid system, and on the other hand, resistance to this system as a protection of subjectivity. H.O. Ball [21] correctly points out that both the student and the teacher in their interaction are always both subjects and objects of it, therefore, it is hard to divide the learning process into its subject and object – inappropriate. It can be said that the traditional education system aims to "objectify" the student as much as possible. This is the kind of training that contributes very little to development, and if it conditions it, then only through resistance (after all, adaptation and active self-development are practically incompatible things).

In such an education system, success is an indicator of the student's compliance with the requirements. Therefore, this should become a valid object of scientific forecasting.

Now we can go back to the beginning and understand that orientation during various entrance exams to the existing level of

knowledge and skills makes a certain sense: their level really means the degree of adaptation of the child, that is, the degree of effectiveness of adaptation to the existing managerial pedagogical system. This is a prediction of the contradictory unity "adaptation – resistance". Why is such a "forecast" often wrong? For three main reasons:firstly, the system itself, although it is unified, but in its variants (different types of institutions, different teaching styles, etc.) can differ significantly, therefore, even here, it is inappropriate to take it as a constant. Secondly, we have already noted that the same achievements can occur in different ways, and therefore attention to individuality should be shown in this "forecasting". Finally, thirdly: here the fact that the student still remains the subject of his own development and his own activity is not taken into account at all. Moreover, this ability of his with the transition to "higher" age periods clearly increases, becomes more intense. So it can be said that there is an imbalance in the "adaptation – resistance" relationship: the emphasis clearly shifts towards resistance (the effort to show subjectivity, independence). The emergence of one's own values, aspirations, opportunities, and most importantly, life plans and perspectives simply cannot be taken into account by a rigid system. "They are out of control," teachers say about students, and at the same time, they are completely right and completely powerless. Here, of course, any prediction is destroyed.

But teaching as management of students' educational activities can be fundamentally different. The study of the legacy of H.S. Kostyuk proves that he sought to show the possibility of an opposite approach to the management of education. As early as 1937 [137], devoted to the study of psychological problems of the individual approach in education, he exacerbated the problem: the individual approach should not consist in taking into account the individual characteristics of students, but in the development of these characteristics. It should be a contribution to the formation of individuality as a unique and unique integrity.

The main thing here is not to "suppress" the subjectivity of each student, but on the contrary – efforts to support and develop it. As G.O. Ball notes: "The concept of management... lacks an authoritarian sound..." [21, c.115].

It should be added that skill management, according to Kostyuk, should ensure not only the functioning of the student (object of

management) within certain parameters, but also contribute to his comprehensive development as a subject of this form of activity. Further, H.O. Ball actually comes to this position: "Management methods should fully take into account the specific characteristics of the object (if the latter is a person, then this is, in particular, his individual uniqueness, his subjective properties, including the ability to be creative)" [21, p. 114]. The latter, creativity, is actually the foundation of self-development. H.S. Kostyuk also talks about the method of such management: "A teacher educates with his attitude to learning, his organization, relations with students, communication with them, his erudition, wealth of spiritual interests, principles, demandingness" [135, p. 29]. What is described is nothing more than a characteristic of dialogic interaction.

Of course, even in this case, the relationship between teaching (management) and learning (and through it – development) will be connective, that is, tense and contradictory. After all, let's remember Vygotsky, "learning never completely coincides with development, it is never identical to it." However, here this connectivity acquires a completely different meaning – it is not resistance and not the desire for adaptation, it is the coordination of different ideas and aspirations of two personalities (adult and child) regarding life and the direction of their own development. On the other hand, this is also what Vygotsky wrote about – the influences exerted by learning are differently appropriated by the subject and cause different changes in the development of the psyche. Connectivity remains, but ceases to be antagonism, antinomy. In addition, in the aspect of Kostyuk's teaching, the concept of "zone of immediate development" finally acquires a real meaning and significance. Vygotsky said that this is what a child can do with the help of an adult, but it remained unclear what was hidden behind the term "help". Now it is clear that we are talking about such a system of relations, when an adult contributes to the development of subjectivity, and therefore, individuality.

If we imagine an education system built on Kostyuk's paradigm, what does the student's success represent in it? It is not a measure of adaptability to the system, but a measure of subjectivity in one's own movement: a measure of independence, originality, creativity, flexibility, etc. And it is clear that this should be a valid object of scientific forecasting of success in education for us.

Genetic and psychological problems of personality structure

The integrity and uniqueness of the individual is not rejected, but the existence of its special structure is assumed. L.S. Vygotsky noted: "It is customary to call such integral formations a structure, which do not consist of separate parts in total, appearing as if their aggregate, but which themselves determine the fate and meaning of each of the parts that make up their composition" [69, p. . 256].

The structure of personality as a whole is an objective reality that embodies internal personal processes. In addition, it reflects the logic of these processes and is subordinate to them. At the same time, from the point of view of genetic psychology, it is the result of these processes. The structure arises as an embodiment of a function, as an organ of this function. Of course, its occurrence, in turn, leads to a change in the functions themselves. Thus, the structure of the personality is closely related to the process of its formation: it is simultaneously the result of the formation, its condition and a factor in the further development of the personality. Therefore, the structure is a whole that includes all mental (conscious and unconscious) and non-mental components of the personality. But it is not their simple sum, but constitutes a new special quality, a form of existence of the human psyche. This is a special arrangement, a new synthesis.

The personality structure is controversial with respect to the stability factor. On the one hand, it is stable and permanent (includes the same components, makes behavior predictable). But, at the same time, it is fluid, changing, never fully completed. In the cultural-historical theory, it is proved that the structure of the human personality changes in the process of ontogenesis. Meanwhile, there are data that suggest that these changes also occur within age stages, determining individual style and reflecting the specifics of each person's life path.

Therefore, the desire to study the personality as a whole does not mean for us a rejection of the structuring of this whole. At one time, S. L. Rubinstein drew attention to the inadmissibility of neglecting the structural aspects of the personality. "Personality," S. L. Rubinshtein notes, "is defined by its relations to the surrounding world, to the social environment, to other people" [250, p. 271]. These relationships are determined by the relationships between the internal components of the psyche, including unconscious ones. Therefore, "personal

psychology includes the study of all these formations in their interrelation" [250, p. 273]. Rubinstein further notes: "Noit is possible to ignore the dynamics of these relations in the consideration of mental processes, just as it is impossible to dissolve everything in this dynamics of relations, completely excluding the statics of relatively stable properties. Dissolving everything in the dynamics of personal relationships means ignoring the presence of stable properties in a person that have developed and consolidated in the course of history" [250, p. 273].

In the vast majority of theories of personality, its structure is declared, as well as its individual components. We tend to approach this question in a different way: in our opinion, the real structure of the personality – the one in which the "logic of the object itself" is embodied – must still be established as a result of empirical and theoretical research. Let's reveal our starting position. Integrity is, first of all, a coordinated and harmonized system of individual parts that, in fact, make it up. That is, integrity implies structure. The latter can (and should) become the subject of psychological research, since it is the lack of reliable scientific data on the structure of the personality that gives rise to the number of ideas about integrity that can be considered metaphors and myths rather than scientifically based generalizations. (You only need to look at modern textbooks on personality theory to make sure that the authors' ideas about the structure of a person's personality are real "works on a free topic" – everyone has their own logic, their preferences, and therefore their own structure. Such a state of affairs is very distant from science). At the same time, the scientific study of the structure quite naturally requires analysis, "dismemberment" of integrity. We agree with the opinion of D.V. Ushakov that for a productive study of personality, it is necessary to take into account the difference between the epistemological plan of this concept and the psychological one [280, p. 220]. If from an epistemological point of view, a person is a whole that cannot be further decomposed, then from a psychological point of view, such an analysis is possible, even necessary. From an epistemological point of view, the concept of "personality" ("subject") cannot be decomposed, since it means a real bearer of thoughts, feelings, values (S.L. Rubinstein noted from this reason that it is not the brain that thinks and knows, but man as a subject, as a person). "In this sense," D.V. Ushakov rightly points out,

"the concept of "subject" cannot be further expanded, since the carrier of thinking and cognition is the subject as a whole, and not some separate part of it. If we try to isolate some subsystems in the personality understood in this way, then the medium of thinking will simply disappear" [280, p. 220].

From a psychological point of view, analysis is necessary, because otherwise the old idea of the "homunculus" will reappear on the horizon. But doesn't this contradict our idea of convergence of subject and object in the study of personality psychology? It seems that a lot depends on the clarity and consistency of the research position. V. Frankl's opinion is indicative in this regard: "Science not only has the right, but also has the obligation to put the multidimensionality of reality in parenthesis, to demarcate reality, to isolate some single wave from this spectrum of reality. Therefore, the projection of reality is more than justified. It is necessary. A scientist must be able to pretend that he is dealing with a one-dimensional reality. However, he must at the same time know what he is doing, in other words, he must know the sources of possible errors in order to avoid them in his research" [284, p. 51–52]. The structure of personality as a whole is an objective reality that embodies – reflects internal personal processes, that is, the processes of emergence, existence and development. It reflects the logic of these processes and is subordinate to them, at the same time it is the result of their activity. This is the point of view of genetic psychology. The structure arises as an embodiment of a function, as an organ of this function. Moreover, to be consistent, it should be noted that at first it arises as an indivisible and undifferentiated, therefore, an undeveloped wholeness, which then, in the process of further existence, becomes complicated and differentiated, remaining at the same time a wholeness (but now it is a different wholeness). In this form, the structure has a reverse effect on the function (on existence), directing, limiting and, in a way, developing it. This way of interaction is a contradictory unity of independent and separate parts that cannot exist without the other. Thus, for a genetic psychologist, the logic of the research object (human personality) represents the natural processes of existence: emergence, development, formation. It is within the limits of this logic that we tend to consider the structure of the personality, and it is within these limits to distinguish its links (components). But what has been said is not enough. Differentiation of the personality structure is not the only

direction of its development in ontogenesis. Another significant phenomenon also occurs: personality is formed. We have already noted that we understand the formation of personality not in the pedagogical paradigm – as the organization of a corresponding influence on a person – but as the acquisition of a certain form by the individual, which represents a complete system of social properties, or more precisely, social "organs" of the personality". It reflects on the psychological organization of the individual, from the latter, as from its foundation, the social "organs" of the individual grow, but never exhaust the wealth of its mental properties, states, processes, psychological mechanisms that are constantly emerging, potentials that accumulate all the time, relationships, which are constantly emerging. Thus, the form of personality is constantly incomplete and unfinished. At the same time, the form means hierarchization, specific association and involvement in the existence of the personality of different levels of its organization. The levels of psychological organization of a mature personality are the embodiment of its integrated functioning and development. The process of formation understood in this way also explains the phenomenon of heterogeneity and heterochrony of existence – after all, the structures that have gone "into the depths", giving way to others, do not stop functioning – only the quality and manifestation of their activity changes. By the way, this is how H. Allport understands the phenomenon of personality formation: "Formation is the process of incorporating earlier stages into later ones or (when this is impossible) the process of the best resolution of the conflict between early and late stages" [210, p. 180]. The author persistently uses the term "formation" in relation to the individual instead of the traditional "development" and, apparently, he is right. For our analysis, the phenomenon of formation is important in that it explains the multidimensionality of the personality and, in particular, its structure. Specifically, this means the following: any mental component can be considered a link (component part) of the personality structure, if the processes that ensure its existence work not on one, but on many levels of the psyche. The next requirement is that this component must embody and reflect the entire structure as a whole (that is, this phenomenon cannot have an impersonal nature). As in a drop of water, the whole personality should be embodied in it, of course, in a specific, "filmed" form. This link should develop both independently and as a part of integrity, have its own

history and its own future. Thus, we come to the logical impossibility of using the term "parts" if it concerns the structure of the personality. On this occasion, A. Maslow expressed himself beautifully, noting that the personality does not consist of parts, but of faces! L.I.Bozhovich, emphasizing the problems of development, used the concept of "lines (sides) of personality development", which, in her understanding, are relevant to individual structural elements: "there are reasons to believe that the formation of a personality cannot be characterized by the independent development of any one side – rational, volitional or emotional ... it can be assumed that there are certain neoplasms that consistently arise and characterize the stages of the central line of ontogenetic development" [38, p. 227].

But let's return to A. Maslow's term and build a figurative analogy. Before us is a crystal as a self-sufficient existing object. What are its faces? Each of them lies on the surface, embodying at the same time the internal natural logic of the existence of this whole, and the peculiarities of the contact (interaction) of these internal regular processes with the surrounding environment: what it is, is the result of this complex interaction. At the same time, the face expresses the complex processes that take place inside the crystal, integrating them in its form. The edge can be considered and studied separately, although it exists exclusively as part of the whole, and simply cannot be separated from it. The set of faces gives the crystal an individually peculiar shape, which at the same time is somewhat typical for the given onechemical substance. An edge can change its structure (shape) together with the change of the whole (for example, the growth of a crystal), but it can also change (develop) relatively independently (the phenomenon of crystallization). Finally, the facet is the smallest thing that can not only be studied separately (a specific subject of empirical research), but also through which we can "enter" the interior of the whole crystal, getting to know it. The analogy, of course, is quite conditional, but in what way it correctly reflects the problem of personality research: the researcher cannot study integrity as an object, but he does not need a part (a piece of crystal) anymore, he needs an edge – that psychological formation that concentrates in to himself the entire integrity of the personality structure and therefore reveals its secret mechanisms.

Based on these analogies, it should be stated once again that we do not know what the psychological structure of an individual is – it must be established as a result of empirical research.

An important and not finally solved problem is the definition of individual meaningful components of the personality structure. The whole difficulty of personality psychology lies in defining these meaningful links.

To make this problem clear, let us cite an old reasoning of L.S. Vygotsky [69] regarding the search for meaningful units of the analysis of the psyche as a whole. He makes a good analogy with the chemical analysis of a substance. If a scientist is faced with the task of establishing valid deep mechanisms and properties, for example, of such a substance as water, he can choose two ways of analysis. Firstly, it is possible to split the water molecule (H₂O) into hydrogen atoms and oxygen atoms and ... lose its integrity, since the individual elements that will be released will not have any properties inherent in water (this is the so-called "elemental" analysis). In the second case, if you try to combine the analysis with the preservation of the properties, signs and functions of integrity, you should not decompose the molecule into elements, but single out individual molecules as real "bricks" (Vygotsky writes – "units") of the analysis, which can already be investigated in at the same time, all the features of the substance as a whole are preserved in the most simplified, but also acutely contradictory, "universal" form [69]. If we transfer this logic to the field of personality psychology, it will turn out that the task of finding meaningful units of its psychological analysis is not so hopeless as G. Allport thought, sarcastically noting that everything is very simple and hopeless in terms of finding units of analysis – everything depends on the attitude of the researcher: if he likes "features" more, they will be such units; if "motives" – the basis of the analysis will be the motivational sphere, etc. [210]. For the sake of fairness, we note that this is what happens in the absolute majority of personality theories. One of the main methodological requirements put forward, in particular, by the outstanding Ukrainian scientist V.I. Vernadskyi in relation to science in general (that is, any scientific opinion) is violated: the researcher should try to establish the logic of the object of research itself, and not impose it (object) own logic. Vernadskyi, by the way, also made a special remark about psychology: when studying any mental phenomenon, one should not forget that it

has its own, separate logic of existence, which can fundamentally and radically differ from what a scientist thinks about it [60]. However, the problem is important not only because of a peculiar replacement of the logic of the object by researchers with their own thoughts. On this occasion, by the way, K.-G. Jung expressed himself beautifully and figuratively: "In reality, we find certain facts that are grouped in a specific way, and in accordance with historical and mythological parallels, we give them a name... Based on this, you can build a theory – Freudian, Adlerian or any other. You can think about the factual side of the world all you want, but as a result there will be as many theories as there are people puzzling over them (emphasis added by S.M.) [322, p. 68].

There is, we note, another significant problem, which Jung also beautifully wrote about: "No one is absolutely right in psychological matters. Never forget that in psychology the medium by which you form judgments about the mental and observe them is the mental itself. Have you heard? Have you ever heard of a hammer that hits itself? In psychology, the object of observation is the observer himself. The mental is not only an object, but also a subject of our science. As you can see, this is a kind of vicious circle, so we have to be very careful" [323, p.41].

So, although the individual is certainly an object of psychological research, it is a specific object. And the main specificity is not even in complexity, but in the fact that it is an object capable of its own, free actions (the sign of "activity"). That is, a person, acting as an object of study (or influence), at the same time exists as a subject, which greatly complicates the problem of understanding its psychology, but only complicates it, and does not make it hopeless.

The selection of meaningful units of psychological analysis is the leading principle of genetic psychology. How can this be applied to the individual? L.S. Vygotsky wrote: "By unit we understand such a product of analysis, which, unlike elements, has all the basic properties inherent in the whole, and which is such that it does not decompose further, a living part of this unity" [69, p. . 15]. In the last works of V. P. Zinchenko, the approach to units of mental analysis was expanded and deepened, which resulted in the formation of methodological requirements for these interesting abstract formations. We present these requirements with our comments [112].Firstly, the unit must be a structural entity, a

synthetic psychological structure, therefore, it itself must be complex and multifaceted, contradictory. Secondly, this is clearly noted in the second requirement of V.P. Zinchenko: "The unit must be heterogeneous, combine different and even opposite properties" [113, p. 86]. Further, the unit must be capable of development and self-development, so it must have generative properties. The fourth requirement is that the unit of mental analysis must be a living part of the whole. What does the author mean? For our research, this is very important. The unit must be a real psychological fact, not an abstraction. It should be mobile, fluid and changeable, with all its connections rooted in a more extensive phenomenon.

The fifth requirement of V.P. Zinchenko is also essential for research specifically in personality psychology. It is about the possibility of having a potential and real large number of units that can be organized into a taxonomic unity. It is with regard to the individual that the researcher is put in such conditions, because there cannot be a single unit here. The following requirements relate to the fact that the units must really reflect the aspects of the phenomenon of which they are, in fact, units.

The analysis proves that one unit ("cell") of analysis cannot be singled out in an individual. There are several different psychological structures that meet the requirements for units of analysis:

- *the structure must be specific and independent, but at the same time – it will exist and develop only as part of a complete personality;*
- *in this structure, the whole personality should be reflected in its real unity, but at the same time be reflected "in depth and simplified" in the form of an essential contradiction;*
- *this structure is not something similar to a "building block" – it is dynamic and capable of both its own development and harmonious participation in the formation of a complete personality;*
- *the structure in question must reflect a certain essential aspect of the individual's existence and correspond to all essential features of a complete personality.*

In fact, we are talking about the representation of the individual as an open complex dynamic system capable of self-development, and the definition of the key meaningful structural and dynamic "nodes" of this system. These "nodes" are not, in fact, *in parts* personality, following A.

Maslow, it is more appropriate to call them faces, bearing in mind that each facet is a reflection of a separate aspect of the personality's existence inseparable from the entire integral structure.

The idea of personality as about *structural and dynamic system* (K.K. Platonov's term) actually means a combination of seemingly incongruous things: the structure implies constancy, stability, certainty, orderliness and constancy. Dynamics means a constant flow – becoming (the situation resembles a paradox that quantum physics faced at one time: an electron – a particle or a wave (flow)?, and which was temporarily solved by N. Bohr using the principle of complementarity). Genetic methodology resolves this contradiction through the category of movement – becoming: personality as a unique integral structure exists only in movement (existence – becoming). Constant changes and self-changes are a condition for the existence of a structure. If the personality, figuratively speaking, "stopped" (although this never happens in a person's life), or the dynamics of some of its meaningful units – faces "stopped" (which, unfortunately, happens quite often), the processes of simplification – primitivization immediately begin, and then the destruction of structural integrity. This can be considered a genetic law of existence of the human personality.

Due to the fact that the structure of the personality consists of several different "content units", the question arises about the peculiarities of the relationship between them and, on the other hand, between each such "unit" and the whole structure. Here we can formulate *guiding principles* such a relationship, which will then be "filled" with empirical data. This is the principle of connectivity (the term was introduced into psychology by H.S. Kostyuk in the context of considering the interaction of learning processes and personality development) [oral conversation]. Interconnection and interaction of some principles according to the principle of connectivity means, as already noted, that each participant in the interaction is independent and complete and exists and develops according to its own laws. At the same time, all this turns out to be relative, since, on the other hand, the existence and development of each link of connective interaction is possible only if there is a presence and connection with other links. They exist as self-sufficient and independent, but they cannot exist without each other, complementing and completing each other. Therefore,

connectivity implies not only harmony, coherence, but also tension, conflict, contradiction. This is the condition of unity.

Based on the above and taking into account the huge array of scientific data from the psychology of personality, it is possible to decide on the structure of the personality more specifically (although, by and large, as already mentioned, we believe that this question represents a scientific problem, and here, perhaps, it is most inappropriate, as L.S. Vygotsky said, "to turn a problem into a postulate").

The analysis of numerous domestic and foreign theories of personality testifies to the great variety of views of scientists on the problem of personality structure: from a practical refusal to consider this issue (K. Rogers, A. Maslow, we have representatives of activity theory) to very careful and scrupulous attempts, which, however, are very arbitrary, reflecting the logic of the authors, and not the logic of the object of study (B.G. Ananiev, A.K. Kovalev, S.L. Rubinstein, Z. Freud, R. Cattell, G. Allport, etc.). The theory and methodology of this issue in domestic psychology are most carefully developed in the works of K.K. Platonov, who uses the expression "functional-dynamic personality structure", considering it as a complex open system that develops itself. A dynamic system is a system that develops over time, changes the composition of the components included in it and the relationship between them while maintaining the function. K.K. Platonov introduces the term "substructures" of the personality, which "may include all the known properties of the personality" [225, p. 122]. The author sees four such personality substructures.

1.A biologically determined substructure that combines typological personality properties, sex and age-related psychophysiological features and their pathological changes, which are largely determined by the physiological and morphological features of the body, in particular, the nervous system.

2.A substructure of forms of reflection, which includes individual psychological features of individual mental processes (cognitive and emotional) that are formed during a person's life.

3.A substructure of social experience, which includes knowledge, skills, abilities and habits acquired in personal experience through learning.

4.A substructure of orientation that combines motivation, attitude and moral qualities of an individual.

The criteria for selecting these substructures, given by K.K. Platonov, are important.

The first criterion represents "the relationship between biological and social, innate and acquired, procedural and substantive" [225, p.87]. Indeed, in the given substructures, one can notice the regular dynamics of changes in this ratio: from the maximum of the innate procedural in the first to the maximum of the acquired in the fourth. The author rightly notes that "this sequence helps to better understand the relationship between the social and the biological not only in the individual as a whole, but also in the substructures of different levels, up to individual properties of the individual" [225, p. 123].

The second criterion the selection of the specified substructures is the internal closeness of the personality traits included in each of them, and the selection "in each of these substructures, taken as a whole, of its substructures of a lower level" [225, p. 123].

The third important criterion distinguishing these substructures is that each of them has its own, special type of formation. The interaction of these different types of formation determines the individual characteristics of the development of each personality.

The fourth criterion K.K. Platonov considers it "the most significant". It consists in the existence of an objectively existing hierarchical dependence of these substructures. Various connections exist both between substructures and within each of them. "But the causal connections of subordination are more clearly expressed in the interaction of various substructures" [225, p. 124].

The fifth criterion is more "organizational", but also important: it is about the fact that, in reality, in psychology, certain selected substructures, as well as their components, are valid subjects of empirical and theoretical research.

K.K. Platonov notes that the listed criteria "allow us to assume that the four selected substructures reflect objective reality and are therefore the main substructures of the personality" [225, p. 125].

The genetic perspective of the research, as well as the numerous scientific facts obtained in the last period, allow us to significantly supplement and develop this concept, which we consider, at the same time, fully justified.

If we take into account two more essential criteria, we can say that in reality the substructures identified by K.K. Platonov are "meaningful units of analysis" of the personality. We mean the following:

The sixth criterion lies in the fact that the isolated substructure, while remaining specific, at the same time reflects (contains in itself in a "removed" form) the entire unique personality.

The seventh criterion means that in reality the relationships between substructures and, on the other hand, between a separate substructure and a complete personality are not only hierarchical: they exist according to the fundamental principle of connectivity.

The analysis of the facts allows us to recognize that the status of the substructure (here we intend to keep this term of Platonov) also has abilities, as individual psychological properties that determine the success and degree of achievement of a person in a certain socially conditioned activity. This quality means also *measure* human mastery of methods of activity in a cultural and historical environment.

Thus, taking into account modern scientific data in the context of the genetic approach, it makes sense to distinguish in the individual *five* individual substructures (units):

- biopsychological;
- individual features of mental processes;
- experience;
- orientation;
- abilities

At the same time, it should be noted that such consideration of the personality is not a complete reflection of its structure. The personality also has other qualities, which by their nature are valid "units of analysis" (facets), but, unlike the ones listed, they are much more dynamic (fluid) and do not have, if you can use such a term, a separate localization – they cover the whole personality.

We mean the "inner world of the individual", "character" and "mental states".

"The inner world of the individual," L.I. Antsiferova notes, "is an individually interpreted, saturated with the modalities of personal experiences, understood in dialogues with real and ideal interlocutors external world, in which functional fields with different levels of significance are differentiated" [16, p. 209]. This is the world of

meanings, life plans and essential experiences. But the inner world of the individual is, in fact, much more controversial and dramatic, since it consists not only of the conscious, but also of the unconscious. Instincts and drives, archetypes – all this is, so to speak, the second pole, the second component of the inner world. The most contradictory contradiction "conscious – unconscious" forms the basis and gives rise to this edge ("unit"), which seems to fill the inner subjective space of an individual's existence.

Nature (literally from the ancient Greek – imprint, "forge") we consider personality as a unique individual shade of all personality qualities, which is manifested in constant (habitual, typical, "characteristic") ways of interaction and emotional response of a person. Character is what "sprouts" on the surface, what determines the "form" of the personality; defines personality from the point of view of another person and the social world as a whole. Character is a meaningful unit of personality, as social action (interaction), deed reflects the entire personality, its entire mental and psychophysiological thesaurus.

Mental state is a holistic characteristic of the functioning of the human psyche over a certain period of time, which reflects and determines the peculiarity of the course of mental processes depending on the reflection of reality, the previous state and mental properties of the individual. The mental state seems to envelop and permeate the entire personality, integrating it and "coloring" the very context of existence. The condition can affect the adequacy of the representation of the world, the effectiveness of activities, the maintenance of vital goals and orientations. It is very important that the state can transform into another form of existence, namely, into a personality property, and it is in this sense that we say that a mental state is something that can be realized, take place (in the sense of being realized in behavior, trait etc.).

Thus, the personality structure can be imagined as consisting of eight meaningful units (facets). The analysis shows that these units are different both in terms of content and general thesaurus – there are five substructures and three cross-cutting dynamic-flowing general qualities. From this follows the real heterogeneity of the personality structure.

The above can be considered as a classical (typical) approach to the problem of personality structure. It seems that it makes sense to single out and sharpen those aspects that are of interest to genetic psychology itself. In particular, it is necessary to consider such an important question: why there is a need to study the structure of the personality at all. It seems to us that the concept of structure is actualized in personology due to the fact that the individual, as we have already noted, turns out to be a very complex object of research, and this complex integrity, which is self-existent, cannot be covered by modern science as a single thing, indivisible (that is, as it really is). Each specific study requires dissection of the personality and focus on its individual elements. And in order for it to be a really meaningful element, you need to imagine the structure in which it is included. Hence the need to study the personality structure as an initial abstraction.

At the same time, the structure is interesting in itself, due to the fact that it includes and unites in itself, as in unity, various components of both mental and non-mental. What a person is as a whole constitutes a certain form of personality, which, however, should not be understood literally, simplistically. It is not a material form, but it does exist, and it is somewhat different in each individual. Therefore, consideration of any individual component of the personality, as well as the personality as a whole, requires the formulation of appropriate scientific problems. On the other hand, it can be said that there is a separate task of researching the structure and its formation. After all, the personality is a unique unity that develops itself, and the study of the structure of the personality will allow us to solve the problems of the emergence of the personality itself, the mechanisms, directions and origins of its development, and important practical questions related to the interaction of parts of the personality.

For genetic psychology, it is especially important to understand the structure as it really is in the living movement-development. Not to create it artificially, by including three elements in it, like Freud, or four, like Platonov, etc., namely: to understand it as it really is. But in order to understand the logic of an object, you need to understand how it arises. In general, our central thesis is that the emergence of structure is the branch of research that can reveal the real meaningful foundations of personality. It appears when a personality differentiates itself in its functions, ensuring its existence in the world. We consider the eight

structural components not because it seems correct, beautiful, beautiful to us, not because we like this number, but because we focus on the real functioning of a person in the social environment, based on the fact that an ordered and integrated structure for this is necessary and naturally arises from the encounter with life itself. And then it turns out that every element of the structure is natural in view of human existence. Having lost at least one part of the integral organization of the personality, we will lose the entire personality. Although we do not claim that it is given the model is complete, but at this stage of the research it is true and sufficient.

When studying personality substructures, it is important to pay attention to the need to observe a number of provisions essential for genetic psychology. The study of personality structure always aims at integrity, and every study conducted should contribute some meaningful aspect to the holistic understanding and correct interpretation of personality. This methodological view, as well as those that will be indicated below, directly flow from the provisions of genetic psychology in relation to the individual. From experience, we can say that when the term "personality structure" is used, it is usually expected that now we are talking about what the personality consists of. We are talking about something completely different: when we use the term "personality structure", we mean a complex wholeness, and for us the question of breaking it down into parts is already secondary. These substructures are not really units of the personality, because it is not possible to single out a unit in the personality at all. They are special associations (Vygotsky called it interfunctional systems) that are responsible for the functioning, or rather, ensure the functioning of the individual in one or another aspect of existence. Strictly speaking, substructures should be considered not as "units" of the personality, but as "units" of its integral structure. Therefore, it is important for us that the concept of "personality structure" is first of all a reflection and recognition of complex integrity.

In the context of this provision, it must be emphasized that the personality first changes as a whole, and only then its parts change. And this is something that many researchers underestimate. So, for example, in adolescence, the personality structure is already formed, already complete, and has all the components that should be there, and their set will no longer change. But if an accentuation of character occurs in a

teenager (which happens very often due to the complex interaction of the biological and social spheres), this will mean, first of all, a change in the entire personality. That is, integrity will remain, but it will change shape. At the same time, the content and dynamics of all other components will change, and the whole personality will become different.

Let's dwell on this example in more detail, since, on the one hand, it is illustrative, and on the other hand, the phenomenon under study has fundamental practical significance. Accentuation as an "extreme variant of the norm", "as a protrusion of some feature" – what is behind these seemingly obvious and correct, but purely superficial definitions? And why exactly in adolescence do we usually have a real "parade of accents"? A character trait is a stable way of human interaction with the environment and, in fact, a way for a person to satisfy his own needs. That is, the intention travels a very long way (long psychologically, not chronologically), and at each step of this way it meets the environment – internal (organismal features, experience, system of values, views and meanings) and external (there is a wide range of circumstances, actually, what is included in the concept of "situation" in modern psychology). Each such meeting leads to changes and, ultimately, an individual-specific "trajectory" of the movement of intention from conception to satisfaction is formed: behavior is formed. At a certain stage of genesis, these complex, multi-meaningful, nuanced processes are nevertheless stabilized, what can be called an ensemble, that is, a coherent whole, emerges (habitual, expected ways of responding, prevailing inclinations and goals – all this is a complete personality and we have all this in a child at the end of primary school age). This integrity can, of course, be evaluated ("nice guy", "harmful child", etc.), we can talk about harmony – disharmony (which, in fact, is also nothing but our assessment), but the main thing is that it is agreed integrity. Adolescence opens a deeper foundation and forces to introduce other essential indicators of analysis. A sharp, rapid and violent violation of the ratio of biological and social internal integrity is the main thing that is happening. The powerful protuberance of the biological branch of need changes, first of all, the intentional sphere. In fact, it leads to a condition straining the entire system of a complete personality. But, on the other hand, the social is also strengthened due to the change of social

views, standards and aspirations. Thus, it seems to us that in the mind of a teenager, this powerful "ejection" of the need for one's own continuation as a purely biological being is reflected not as a purely sexual drive, but as a combination of it with the desire for social fulfillment. The balance is still achieved, but there remains a very great power of intention. It can change, destroy ("shorten", "pave paths of direction") in the ensemble that has already formed, and then new connections can arise on another level between the biological (as already the "carrier") body and the social as a system relationships, priorities and values. After all, let's say, the "path" of the steroid is not only the realization of the desire to be the center of attention (social), but also the corresponding neuropsychological, temperamental properties and tendencies that do not provide an adequate way for this society to achieve this desire (weakness, morbidity, rigidity etc.), and, therefore, hysteroid behavior is a kind of compensation for the impossibility of achieving real success. There is a certain achievement and the corresponding behavior is fixed, and the personality takes a slightly different form. Thus, we observe a complex and multifaceted phenomenon: when accentuation occurs, the whole integrity changes twice. Initially, this concerns the original genetic background – needs, and the informational and dynamic processes underlying and covering the entire personality acquire another, more powerful, differently directed movement (1) and after that partial changes (actually, character, individual feature, which psychologically means the destruction and reconstruction of extremely complex relationships of individual components of a whole ensemble); and the consequence of this is fundamental changes in behavior, which cause corresponding changes in the form of a complete personality (2).

Whether accentuation will remain a fact of behavior in the future really depends on the level of the ratio of biological and social (physicality – environment) (in most teenagers, accentuations disappear after puberty, and this is exactly what Vygotsky meant when he wrote that neoplasms of the crisis period often do not remain in the behavior, but seem to go "into the shadow" – by the way, I wonder if he did not mean "shadow" in Jung's sense?) But one way or another, the teenager will "come out of the crisis age" before others, and this is the first thing that we consider important from a practical point of view: it is completely inappropriate for parents and teachers to feel sorry for

that child who was just recently, because these nostalgic experiences are not so innocent – they unknowingly set a style of upbringing that returns the child to the old, and it already looks very unattractive for her in the context of the experienced crisis. So, this delay is what can be a source of conflicts. On the other hand, a practical psychologist dealing with the accented character of a teenager, if he considers accentuation only "here and now", without taking into account and without implementing knowledge about the mechanisms and dynamics of its occurrence, is doomed to a very primitive "correction", which it will be very labor-intensive and ineffective. After all, he perceives the situation in such a way that this teenager has such and such an ugly trait and it must be gotten rid of. But in reality, everything is completely different – not "he has", but "he is such that" this behavior and system of experiences is characteristic of him. The whole form of personality is different: it is a new thesaurus, a new coherence, and the correction should not really be to get rid of ("cut out the appendix", "pull out the thorn", "get rid of the headache"), but to shape the behavior and the system of experiences of this individual (with accentuation), which would be positive, productive and effective. Wasn't that what K. Rogers had in mind when he wrote that the "organismic self" is not something that needs to be pushed out or gotten rid of, but something that needs to be learned to coexist with in an open congruent dialogue?

Thus, it is important to also understand the difference between the concepts of "structure" and "form", or concepts relevant to them. The structure takes shape, differentiating and at the same time agreeing, uniting around the central, nuclear formations of the personality. That is, the form acts as a sign, as a derivative of the personality structure. In contrast to this, in the generally accepted Logicians understand the structure of some form of personality in the context of tasks of formation and development. We distinguish between these two concepts: something whole develops according to its own laws and according to its regularities, and at this time it acquires the form that arises in this process, due to the fact that this latter encounters the surrounding reality, on the one hand, and with internal, biological prerequisites, on the other hand. This is how a certain form arises. Personality acquires it in its basic manifestations, and now form is a manifestation of structure. So the structure, on the one hand, is a derivative of the whole and includes the main mandatory constituent

parts, and on the other hand, it has individual-specific features in these structural formations, and this is manifested as a form.

In addition, let's emphasize once again: the structure is not only integrity, but also *indivisible* integrity. We cannot find anything impersonal in the human psyche. Therefore, when we artificially, for the sake of analysis, single out different links of the personality and examine them, we should not forget that indivisibility is the main and essential point. Personality is born, appears all at once as a whole, indivisible. Another thing is that it is then differentiated into separate parts, but necessarily within the limits of the whole. This means that personality is structured, and this, in turn, means that it is differentiated. It turns out that a non-fragmented whole, which originally holds within itself certain possibilities, potentials for further existence, upon encountering the environment into which it has fallen, necessarily forms parts that are not similar to each other. For example, let's say, in order to exist in a social environment, a modern person must be able to do something, and a structural component, which we call abilities, appears. Everything happens in this way: some unstructured whole, which is a person at the time of emergence, at birth, already in post-embryonic existence, comes into contact with the social environment, which makes certain demands on it, some conditions of life are on the one hand, and on the other – the whole internal biological preconditions work. And it is the "collision" between these systems that leads to the emergence of separate, dissimilar sections, parts of this whole. This is how differentiation occurs. By analogy, at the biological level, such a process exists in a fertilized cell: it first divides, and very gradually the organism as a whole acquires separate structures. Exactly the same thing happens in the individual: it initially appears as a single, indivisible, and therefore a primitive whole, and only differentiates over time in the course of its existence and development. In this process, internal conditions and living conditions in which a person finds themselves play an equally important role. This is how integrity is determined: this can also be said about the personality, because when we start to "cross out", "deny", "reject" a certain structural component of the personality, we will cross out all of it. Such indivisibility is due to the fact that function appears earlier than structural integrity, because there are some mandatory functions that a person must perform in his existence when he enters this world. We can call them: this is the function of performing a certain

activity and growing into society, thanks to this – the continuation of the family and oneself in others (in the process of communication). This is the acquisition of skills and abilities. We can show the importance and necessity of any function in the formation and development of personality. For example, the function of interaction between people: communication, exchange of information, exchange of feelings – this is generally a development in the process of contact. And these relationships turn out to be so specific that there are some stable forms of communication for this person, and this is how character is born. The stability of relationships of this individual, the stability of his abilities and skills gives rise to abilities, and the same logic is inherent in the process of emergence – the separation of other substructures.

Here we should stop and draw the reader's attention to the presence of a significant, we would say, methodological and lexical problem in the field of personality research, because it largely concerns our ideas, that is, it is in the space of concepts. In reality, we only perceive human behavior. For example, we record: "a person communicates with others" and can describe stable ways of communication. Let's say she is usually respectful, or usually irritated, or usually ill-mannered. This is what we see and say about it: "these are stable forms of her behavior", and we combine them in a certain term. These qualities are combined into one substructure, which is called "character". And only then, having singled out stable ways of interaction, we can get to know a person by these ways, predict his behavior. At the same time, we are talking about the fact that this happened thanks to the fact that we took into account the character.

Or we can observe that a person knows how to play well, for example, the violin or the piano, that he does it in a specific way, achieves certain successes; we see how it is done, feel and hear the result. And we combine it again, and "say" that the whole complex of what we observed is defined by the term "abilities".

This is how we define any substructure. In fact, each element of the structure is quite conditional, because it is very complex, but it is derived from a function. Of course, compensation is possible; it makes sense to say that a person can have a bad character, but be very capable in some field, and we "tolerate" this person because he really achieves some success: this is compensation through a holistic structure.

It should also be emphasized that a complete structure exists only in a mature personality, and only in him each substructure contains all other substructures. Here we open another and absolutely limitless space of existence of the individual. Searching "in depth" is not necessarily decomposition: it can be the discovery of basic and basic structures-tendencies, which turn out to be as unique and integral as the whole personality. This "microcosm" of personality is still waiting for its researchers!

The context of considering the personality as a whole allows to clearly separate and, in the aspect of genetic vision, to integrate such concepts as "personality structure" and "personality development" at a new level. When it comes to the existence of a personality as a whole, it should be taken into account that its development takes place along certain lines ("lines of personality development"). These lines are, in principle, known. In particular, L.S. Vygotskyi, A. Vallon, L. I. Bozhovych, etc. spoke about the lines of personality development. The line of development is not the development of a separate substructure, a component element, it is a line, a direction along which the entire whole structure develops. This should be clearly understood: when I talk about the development of the personality, I mean the existence of certain directions along which the entire personality develops, its integral form changes, and only in its composition do the substructures change. According to this logic, it is incorrect to say that, say, a person's character develops separately, abilities – separately, cognitive sphere – separately, etc. In fact, nothing in personality develops separately. It develops only as a whole, only as a whole, and develops along separate lines. This does not mean that we reject the presence of unique and specific mechanisms for the development of individual substructures, but according to this point of view, these specific mechanisms are able to act exclusively as part of a single global super-complex mechanism that ensures the development of the individual as a whole. Let's say there is a line of development of the individual's relationship with the surrounding world – with other people, objects, phenomena, etc. If we take it as a separate line, then the entire personality is represented in it (in its "passage"): first, the relationships and the entire personality change, and then the available substructures: character, direction, abilities, cognitive sphere, etc. At first glance, it may be unclear, for example, the meaning and role of abilities in this process. But – only at

first glance. Not talking about special abilities, such as communicative ones, we must take into account that the development of abilities opens up a new, unique sphere of relations for a person – professional relations. Their presence and a new level of development of individual abilities illuminates these relationships in a completely different way, affects a person's place in them. On the other hand, in order for this to happen, for abilities to play their role in this field, changes must first take place in the relationships themselves, and the whole structure of the individual must change (in order to "enter" the professional environment and develop abilities, a person must "pass" the field learning, maturing as an individual, mastering social roles, etc.).

It seems to us that understanding the relationship between the structure and lines of personality development (lines of development) is very important for understanding the peculiarities of human existence itself: the personality is initially structured as a potential, and continues to be structured throughout life. A child is already unborn, and earlier – when the fetus only acquires a human form (morphological), there are already separate "substructures" (sensory, biopsychic background, drives, etc.). We call them here "substructures", since, for example, by the term "sensory" we mean not only sensations (in the sense accepted in modern science), but an undeveloped, syncretic, but nevertheless unity of the rudiments of all mental phenomena, which make it possible to reflect reality at a certain level also as integrity (certainly incomplete, insufficient and diffuse). In general, potentially, the structure already exists. If we do not accept this, how can we explain, say, the facts that both 6- and 7-month-old children are ready for human existence, as well as those born on time? By the way, these cases can be considered as evidence of the powerful social compensation of those biological mechanisms and structures that did not have time to mature.

The genetic modeling method that we use here to analyze the personality structure involves taking into account not only the integrity, but also the self-development of the personality. Only a holistic approach can make it possible to understand the phenomenon of self-development, and conversely, self-development should be understood as a function exclusively of wholeness. Insufficient attention to the internal, individual origins of development (for which the cultural-

historical theory is rightly criticized) was caused by the fact that man was denied initial subjectivity, and therefore integrity. We proceed from the genetic position that the initially (potentially) existing biosocial unity – a complete personal structure – has an initial property (function)develop yourself This function is determined by its very biosocial nature. If the structure arises as a result of differentiation during the adaptation of the child to social life, this is only half the truth. The other half of it consists in the fact that this primordial being carries within itself a need as an initial intention, which includes both biological and social media as a unity. Its social component, which enters the fetus from the parents during fertilization, acts "inside" this creature itself, and acts in a very specific way – it creates in it a desire for self-development, self-movement and, ultimately, self-awareness. This position is hardly discussed in the science of personality, primarily due to the lack of empirical studies, but, in our opinion, it is time to conduct them and obtain relevant scientific data.

Emphasizing the purely human, personal nature of the intention to self-development, we, staying within the limits of genetic psychology, give ourselves an account of the fact that it arises and, therefore, has roots. But it is not enough to say that this intention is rooted in the social, it must be borne in mind that the social has also developed and is developing. It arises as an interaction, and, therefore, in some forms, in some form is inherent in everything that exists, in particular, living things. After all, any living being (the simplest, a plant, an animal) also develops itself, and this is an indisputable fact. And therefore – she has this drive, this need for self-development, as the only possible way of existence. And this intention here also has an exclusively social basis – social in the sense that it is determined by the interaction of living beings, as an obligatory (attributive) factor of life as such. Therefore, it will be more accurate to talk about the expansion of the limits of self-development in a person, as a result of his (man) covering the entire Universe and obtaining the property, which consists in the fact that a person is a natural being that can change all nature, appropriate it and thereby change himself. An interesting and acute problem arises here, which is not even considered by modern science: the presence of the intention for self-development leads to the fact that any living being is generally structured (it is a structure), and in this sense, man is no exceptionand, in fact, does not differ from any creature. The difference

is not in the structure itself (such as its presence), but in the specifics and differences of this structure. The origins of these differences should be sought in the peculiarities of mental energy and information processes that are unique to humans. It is, of course, the state of formation of the Being, the Existent, because in it the Being knows, understands itself (in this sense, reflection is rather not a person's knowledge of himself, but the Existent's knowledge of himself through the mediation of a person). Man exists not because he is given to realize himself, but because in him all Being can be concentrated in principle, through him he can know and understand himself, and man is able to understand this, and this is precisely why he is higher than Being: after all, he is not a mechanism, which is used, and the one who wants and can do it herself. And that is why it is not "thrown" into the world, but is its original transcendence. The integral structure of the human personality is, of course, an "organ" that ensures the performance of a transcendental function, and therefore it is the way it is – the most suitable for the performance of this function (in modern science, this function is represented in the concepts of "consciousness" and "self-awareness", which say very little to this science, because they are considered by it in isolation from this function). The point of view that modern psychology "takes the phenomena of consciousness and self-awareness out of hand" is incorrect. But it is true that these phenomena are not studied in positive studies (or are studied in a very fragmented and primitive way). And this happens due to the peculiarities of modern science (the roots of which were laid by I. Newton) – the dismemberment of the whole and the imposition of one's own logic on the object of research.

We can argue, for example, that in fact psychology does not study consciousness – it does not study anything other than consciousness, but how does it do this? That's the whole point. The biggest mistake, in our opinion, is not spreading the principle of development to consciousness. And it, by the way, arises, develops, has its own roots. And taking this into account, in the end, will allow us to understand what we are dealing with. In the opinions such different (but equally important) philosophers as O.F. Losev and T. de Chardin, we find the roots of consciousness already where a thing has an external and an internal, which do not coincide, although they influence each other,

mutually existing in a unique combined Teilhard de Chardin is generally inclined to call the interior of any object consciousness, as long as it differs from the exterior and only interacts with it. And, surprisingly, this has its own meaning. After all, not to mention – this is exactly what makes each item unique and unique. Something very significant and unknown to us happens within this relationship during the transition from non-life to life, and something (even more significant) – when a person appears. We only know that biological evolution is a directed process, its direction is orthogenesis – that is, complications. And the nervous system (internal) becomes complicated. In a person, the complication reaches such a level that the whole world can be concentrated (instantly and "immaterially") in his psyche, or, in other words, a person is able, thanks to this, to encompass the whole world. This is a personality, because it personifies the whole of Being.

Returning to the problem of self-development, we must once again emphasize that it is an original attribute and reveals all the essential features of the ontogenesis of the personality (since it contains them in itself). Personality development is not adaptation to society. Everything is much more complicated: a child who appears in the world initially experiences two drives (and not one, as Freud believed) – to adaptation, which will continue throughout life, and, on the other hand, the process of self-change, self-development immediately begins to work for him . At every moment, this process works, therefore, at every moment, it is a different (although, at the same time, the same) being, and thus the development of the personality is fundamentally different. And it is now that we ultimately understand the essence of the structure as a whole: personality differs from extrapersonal forms of existence precisely because the original intention – need – has a dual purpose – on the one hand, it is a purely natural, biological intention and in this way determines the development of mechanisms entry into the world, and these are the same processes, although very complicated, that occur in the living world in general. But a person has a much more pronounced social component of need, which self-develops this being from the inside, from itself. Or rather, from the age-old experience of the existence of human generations. Therefore, a child emerges as a self-developing being, and not only because it encounters the external, primarily social environment, as it is presented in the classic versions of the cultural-historical theory. It is like an "engine" that works

throughout life (as a human heart works) from conception to physical death. And this leads to self-change. This is how these two processes exist: adaptation (socialization) and self-development. These are different processes that cannot exist without each other. It seems to us that the complexity of understanding personality, its structure and development is due to the presence of these two mutually contradictory active mechanisms. Not one, as Freud believed. And most theories in one way or another "slip" to Freud precisely because they have in mind one mechanism, one "wing" of need. The point is not only that the personality meets the social environment, but also that the social comes into it, conditions it – from its parents, together with their reproductive cells. This energy, which is social in essence, is present in the child from the beginning, just like energy, actually, is natural. And only now we can appreciate the real complexity of structuring the personality, and in general, its existence as a whole.

While developing our own logic for analyzing the personality structure, we took into account numerous critical remarks, and in particular, V. Frankl's completely fair and thorough criticism of artificial concepts in the field of personology [284]. We are not at all inclined to dismember the personality into separate elements, in research we do not separate certain components of the personality ("facets") from the integral structure. The process of knowing the personality means for us that when solving a specific scientific (partial) task, for example, studying experience, abilities, etc., in the so-called active imagination of the scientist, the dynamic maintenance of the entire complete personality takes place. And only under the condition of considering the specific results obtained in the context of this integrity, it is possible to say that the personality as such is being studied. We are talking about two fundamentally different research tasks and research procedures. Let's give an elementary example: I can study the difference between mechanical and logical memorization, apply specific experimental methods, obtain data and analyze them in relation to the characteristics of human memory. This is a specific psychological procedure, and it actually ends there. However, I can set another task – to study certain features of the personality through the specificity of mnemonic mechanisms. Such a task can be set, but in this case everything changes radically.

You can limit yourself to well-known experiments, but other indicators and phenomena become fundamentally important for research here: the researcher should be concerned with how and why a given person perceives exactly these stimulus words, in which form the stimulus material is perceived better. Is the very meaning of the words important, which, in the end, is the state of the subject now – and many other, purely personal questions. The researcher proceeds from the fact that memory is part of the context of a complete personality, and he uses it as a kind of "window" through which he can see something in this integrity. The subject of research is changing – the peculiarities of memorization and the procedures associated with their study are now means of penetrating the world of a complete personality. In such a setting, it turns out that the researcher gets access to the whole unique ensemble of personal components "through" a separate phenomenon (process). What is essential in this approach is that the researcher does not complete the whole, personal thing "in his own head" according to the laws of logic, but is studied in the process of a very specific experiment. Methodologically and methodologically, there is a fundamental difference between the study of a specific "facet" as such and the study of integrity through the mediation of this facet. In the latter case, what is called a "cut" is not actually done: the experiment is filled with colossally complex attributes, because the researcher must not only "hold", but also take into account a lot of variables unknown to him, determine the logic of conducting procedures with this particular person, in fact, to "capture" the individual logic of the subject. This is a clinical form of experimentation, and it is very difficult not so much technically, but professionally and psychologically: the experimenter must have a very high qualification. Perhaps that is why this type of research is practically not carried out in modern science, instead, integrity is simply invented on the basis of specific partial materials (experimental, test data, etc.).

This state of affairs was criticized by L.S. Vygotsky back in the 20s, and it remained the same: we get a specific result, but we do not study the psychology of its occurrence. As in this example, elementary research proves that logical memorization is more effective than mechanical, but it does not say anything about why this is so, what mechanisms work in both cases (or maybe this individual has his own logic in general and such that the researcher cannot call it logic at all!).

You can answer this question only when I conduct an experiment in which a model of the existence of a complete personality will be built, and memorization will act as a "window" to the real nature of this integrity. This is where the need for the genetic modeling method comes from: we must create a holistic model in its development. All components of personality should be introduced into it precisely at the level of a specific study: both orientation, character, biological processes, internal experiences, and states of personality at the present time. All this must be reliably fixed in the experiment – then a step can be taken towards understanding the psychological nature of the individual.

Let's emphasize once again – the method does not involve a "cut", it involves the creation of an "entrance" into the world of a complete personality, and this is logical. It is not for nothing that G.S. Kostiuk noted back in the 20s of the XX century that no matter how much psychology strives to study the integrity of the individual, this object is so "big" and complex that certain specifics should still be singled out. The question is not only what to single out (this was decided by L.S. Vygotsky), but also how to use it (unfortunately, this was not one decided).

The application of the genetic modeling method will overcome the shortcomings of the traditional "slice" approach: when we talk about the genetic modeling study of the structure of an individual, the life of an individual, we are talking about a model reproduction of all the complexity in a specific experiment. It is very difficult, now it is impossible to name a single study in which this logic has been sustained to the end – we are just beginning to study these possibilities, because we understand that this is a fundamental way to really know the personality.

Genetic psychology, let's recall, examines the structure of the personality, taking into account the thesis that the structure arises quite logically and absolutely regularly. A distinction should be made here: personality as such does not arise, it is created – it continues. Nowhere in nature or in society do we have such a fact, when personality is born from impersonality, the entire history of human existence does not provide us with any such fact. That is why we are talking about the movement of personality within the generation and its transition from generation to generation. So, in genetic logic, it makes no sense to talk

about the emergence of a personality, it is a continuation, it is something that develops. At the same time, as it was shown, the personality structure arises as a necessity to ensure human existence in this world. It turns out that the clear determinism of the whole structure and each of its elements comes from the fact that at the early stages of ontogenesis, the personality is already whole, but undifferentiated, it has no component parts. It is a structure, but very simplified, undistributed, and it provides, accordingly, the simplest functions. Later, these functions become more complicated. This moment is very important and essential. Structure emerges, and this applies to every link and every element.

Next. You should give yourself an account in the separation of three concepts, which in fact are not widely separated in modern personality psychology. I mean the concept of biological, social and actually mental. Personality integrates and unites these three spheres and is a unity. How are these phenomena correlated in a person? We, for the time being, make the following statement hypothetically: that elementary, undivided, primary structure, which is a person at the first stages of ontogenesis, actually consists of two forms of existence: a biological form and a social form. They are combined with each other and further movement, development of personality towards complication and differentiation gives rise to mental¹ as a certain vector, as a certain union of biological and social forms of existence in general. The psychic is formed at the core of these two directions. At the stages of early ontogenesis, what will later become a developed person represents a certain material body, which is an integration, a sum of social and biological tendencies, movements, levers. Mental, like personality, does not arise every time and in every person. It is created on the vector of the connection of biological and social, in a creature that develops, as a result and in the process of its interaction with the surrounding environment. Psyche appears as a function that conditions a human being's ability to exist in a given world, in a given environment.

Genetic psychology takes into account the infinity of the individual's existence when analyzing the personality structure. It can be explained as follows: the individual life of a person is finite, it begins and ends with the physical death of the body. If we talk about the existence of an individual within the limits of generations, and not within the limits of a single life, then we encounter the phenomenon of the infinity of the

existence of an individual. The life of an individual should not be confused with the existence of an individual within generations, because his life is discrete, and the existence of generations is endless in its change.

When considering the personality from the point of view of its structure, it must be taken into account that the personality itself is such a formation that has an internal meaning. Any subject: physical, chemical, and biological can be analyzed from the point of view of its external and internal, but when we talk about a person, this analysis becomes very complicated. Personality is such an object in which the internal is the instance that in principles determines the entire existence of a person as such. And therefore, when we are talking about the elements of the structure and the inner world is singled out, it should not be understood as if there are elements outside the inner world that are not related to it. When a personality at some stage of ontogenesis differentiates, all parts of the structure are related to the inner world, it seems to encompass, permeate the entire personality. And the existentialists quite rightly spoke about the absolute reality of the internal in the individual: the same as the external reality. The inner not only exists, it cries out for expression, and this is the absolute law of personal life. To express one's inner self, thereby changing it, developing it and taking a step in life: this is an imperative for the existence of a personality in general.

The structure we will explore is always in motion. It changes, develops, but this development takes place within the limits of the form, structural components and the structure of integrity as such remains unchanged throughout its life. And at the level of form, at the level of individual changes, what Vygotsky called "interfunctional systems" appears, so changes are taking place.

We would like to emphasize here one serious thing: changes do not go in a circle, they are a spiral, and each stage in the development of the personality is somehow higher than the previous stage. The spiral of this process is achieved by a single source of energy – a need that is not only energy, but also informational. And every time a certain period of the personality's existence passes, all the changes that happen to it at that time do not disappear, but are fixed on this medium, which continues its movement. And all information about what happened to a person at that time is stored and transmitted in the same or modified form to the next

stage. Thus, the next stage is always something higher, in something different, than the previous stage. This is how the spiral arose. It actually concerns the structure: each age period, if we talk about age, is a contribution to the structure. There is an opinion that the transition to another age period marks itself change in the personality structure as a whole. This, in our opinion, is a careless remark: the structure still remains constant, but the fact that each age stage changes the shape of the personality is absolutely certain. Changes the integrity, appearance, dynamics of this integrity.

In considering the structure, we must always bear in mind that the most interesting and essential thing in the individual is what is called the instance-I. And when constructing any idea about the structure, it will be absolutely incorrect, from a scientific point of view, to bypass the instance-I. We attribute the instance-I to the inner world of the individual, but rather conventionally, because in fact it is essential and all-personal. The self-instance is actually the central point in the personality, and in its structure as well. We would like to give it its due place when describing the structure: it should not be ignored, reducing it to only one of the substructures, and on the other hand, it should not be fetishized, saying that everything else is not of such importance and that only the I should be studied, which is – some super-mysterious structure. It is important to understand this for the description of all other substructures. The instance-I is not something super-mysterious, supernatural and inaccessible to science. We must understand this more deeply than W. James, who postulated the impossibility of knowing the "I-subject" [95]. (Here, as we can see, the idea of a "homunculus" appears again). Instance-I is the phenomenon that determines that a person understands his difference from the surrounding world. At the same time, she calls herself in some way: the Russians and Ukrainians call it "Ya", the English call it "Ai", the Germans call it "Ikh". But the roots of such separation are in both the animal and plant world: we do not know by what mechanisms, but it is obvious from the behavior of animals and even plants that they do not confuse themselves with similar and other objects. That is, they are given the separation of themselves from the outside world. When O. M. Leontiev says that at the first stages of ontogenesis, a child does not distinguish between the relationship of people to himself and the relationship of himself to them, as well as his relationship to people and to objects, he is right, but

somewhat careless; we never have something angry and "amorphous": a subject that lives and, therefore, develops itself, already feels its separateness. Yes, it is complicated in humans compared to animals, but Marx was right when he said that the key to ape anatomy lies in human anatomy, not the other way around. After all, any animal does not identify itself with another animal. It does not mate, for example, with itself, it seeks another, and does not mate with individuals of its own sex, but seeks the opposite sex, that is, it distinguishes, and therefore, in its most undeveloped, most primitive form, what we call the Self – given and animals, there are the roots of this instance. They feel it in a different way, they deal with it in a different way, it is not developed, not dissected, not established in the language – no one argues with this, but it is also impossible to give it some supernatural features. It is about the fact (returning to Marx again) that we will truly understand the instance-I not when we look for something in "nirvana" and go somewhere deep (after all, there are only instincts there), and then the molecules already go, – this already happened in biology with the cell. We will understand the instance-I not when we rely on "cosmic" power. In this sense, Marx very precisely said: a person first looks at another person, as in a mirror, and only after realizing that the person in front of him is Peter, a person understands that he is a person Paul. There is no other way. It is implied that the presence of another and interaction with it is an essential factor in the emergence of one's own self. It is interesting that in existential psychology, in this regard, R. May believes that the valid unit of personality analysis is precisely its interaction with another personality. So, the I-instance is something that is born in interaction with other people. It is interaction with another that gives a person the opportunity to understand that he is not another. Vygotsky wrote that when a person assimilates the experience of humanity, then only he has his own world, and not as a result of "immersion" in his mystical chakras. The self-instance arises in interaction. Interaction always exists, which means that this instance also always exists, with different degrees of awareness, with different levels of representation, with different degrees of understanding and use. And there is no such stage in ontogenesis when a person confuses himself with the environment, and there are even no known cases of mentally ill people confusing themselves with the environment, which means that the instance-I exists in them as well. And it is not necessary to fetishize it, it

is a completely normal attribute of the personality, and there is no super secret here: everything is completely natural – a person must separate himself from others in order to exist.

The presented idea of the structure of personality can easily turn into "one of" many others, and as such will give very little to the psychologist who is interested in personality. After all, what is fundamental and essential both for theory and for psychological practice is not the ascertainment of this or that structural whole, but the awareness of actual psychological mechanisms that determine the existence (functioning and development) of the human personality. The answer to this question is not in the description of structural formations, but in the identification of the occurrence of regular relationships between them and within each of them.

The long history of the study of personality in domestic and foreign psychology proves that psychology has very little to offer today in this aspect. Within the limits of traditional experimentation, it turns out to be practically impossible to "discover" complex and multi-layered interrelationships between separate substructures of a complete personality. At one time, L.S. Vygotsky faced this fact, revealing the impossibility of really understanding the nature of individual higher mental functions, if they are studied in a mature, formed form using the usual experimental procedures in psychology. He understood that the higher mental function at the stage of maturity specifically collapses, turns into "petrification" (Vygotsky's term), and in this form the deep and essential mechanisms of its functioning are not amenable to scientific knowledge. It was this fact that determined the direction of Vygotsky's further search, which culminated in the creation and introduction of the genetic method into psychology. The logic here is simple and at the same time ingenious: the real structural and dynamic nature of the higher mental function can be revealed to the researcher if one studies not a formed, not "ready" function, but the process of its emergence, when all components are open, even "naked", when connections are still multivariate and are only formed by choosing the most optimal options from among many possible ones. That is, there is a process of formation of a higher mental function as a complex interfunctional psychological system.

So, modern genetic psychology uses the principle discovered by Vygotsky, implementing it in the field of personality psychology. In order to understand the essential questions of the existence of a human personality, it is necessary to move away from a phenomenological view of its structure: the real mechanisms of this very complex phenomenon will be revealed, as already noted, when we approach its study from the point of view of what *the personality structure as it exists in a mature state – arises and functions. And this process of emergence is naturally conditioned and rigidly determined by completely objective (in the sense – actually existing) circumstances.* In other words, if we fix the structure of a mature personality as described above, then in order to truly understand its (personality) essential nature, one should answer the question – why does a person's personality have this particular structure and how does it arise. These questions and the answer to them are important not only in themselves – they hide the secret of the formation and existence of the individual as a whole. It should be noted that, although the process of personality development has been studied in psychology for a long time and very actively, the very moment of its emergence (the emergence of a regular and conditioned-determinant) remains outside the focus of research. This seems quite understandable, since this act, firstly, cannot be recorded empirically and is not verified experimentally, secondly, its explanation necessarily means a confrontation with the problem of the biological and social, which, as we have already shown, although it exists in a false formulation, but is in this formulation very ordinary, traditional and ... such that it has absolutely no solution, and, thirdly, it turns out to be possible to explain (and most importantly – to understand) the phenomenon of the emergence of a personality, if indeed, and not declaratively proceed from the logic that the whole appears, exists and develops earlier than its parts. The latter requires a special explanation, and here we will refer to an ancient and allegedly "partial" study by H.S. Kostyuk [137]. In modern psychology, there are many studies that record the moments of origin, the emergence of mental phenomena, interruptions of gradualness (insight, products of intuition, etc.), their leap-like transitions to a new state, to a new way of acting. In this regard, the research of H.S. Kostyuk is purely genetic in its essence of the subject of study, the method and the product obtained as a result. It is distinguished by nuance and originality, as it reveals the integral,

complex and conditioned nature of the sensory-perceptual process on a rather "simple" material.

The subject of the study was the process of creating an image when perceiving an object in difficult conditions. The model of the process was an image of an object located in a dark chamber, which was repeatedly illuminated by the flash of an electronic pulse lamp. The short duration of the illumination did not give an opportunity to look around and see the object completely: the subject was given something that was inaccessible to consciousness in terms of form and content. As a result of numerous illuminations with pulses of light, information was accumulated in the subject's field of vision and the image of the perceived object was gradually built up. H.S. Kostiuk noted the following features of the emergence and emergence of the image of an object when it is perceived in difficult conditions.

In the process of building an image, a complex interaction of reflexive acts, which take the form of specific cognitive actions (sensory, perceptive, reproductive, mental), aimed at solving a perceptual task: selection of features of the perceived object, their structuring, awareness of the class about objects, assigning it to a certain category. On the basis of past experience and fragmentary perceptions, the subject has judgments and hypotheses that influence the course of this process and, at the same time, undergo certain changes depending on the results of perceptual actions. Inadequate hypotheses that are not supported by perceptual data, are replaced by more plausible guesses.

Solving a problem in such conditions is often a process of resolving contradictions between the subject's expectations, predictions, and perceptual information he receives. It is a complex cognitive activity that is verbalized to one degree or another in all their states, starting with the awareness of the problem and ending with its confident solution.

This is a vivid example of the formation of a "subjective image of the objective world", which cannot be understood without its psychological, or rather, personal components. Let's pay additional attention to this. Even the reflex act, as a response to irritation, is changed in this situation. After all, the perceptual task that was set before the subject gives a fundamentally new meaning and dynamics to both this act and the entire sensory-perceptual sphere. The task and the set of sensory-

perceptual and mental actions actualized by the subject mediate the entire process of perception in this situation, which becomes the subject itself. Thus, the goal (task) and methods of action, as purely social assets of a complete personality, in this experiment change the purely biological characteristics of the sensory-perceptual sphere (sensitivity, concentration, volume, etc.). Next, the actualization of personal experience, the development of a special human condition under experimental conditions bring new aspects and nuances to the act of defining and constructing the image of the stimulus – in this case, we are faced with a unique phenomenon of the "second", actually, personal mediation of activity. This double mediation determines, in the end, both a new form and the dynamics of the work of the senses, and the creative act of building a person's own image of the given object. We now have not only a subjective, but a personal research situation. In fact, it is the personality as a whole that determines the cognitive activity of a person, which H.S. Kostiuk showed in this study. So, the situation is not unfolding in such a way that a stimulus (a poorly lit object) acts on the senses, causing reaction is an image. The personality as a whole itself chooses (determines) the stimulus, actualizing all its existing mental components – examines (exhausts) it, the sensory-perceptual sphere, at the same time, and provides information, correcting the initial subjective (target) and personal (meaningful) intentions, and itself in its functioning is corrected by personal structures.

Thus, the peculiarity of the mental can best be understood if we approach it genetically, if we look closely at how the real relationships of a living being with the outside world change during the development of the reflective work of the brain. After all, in reality, in this experiment, we are observing the development and birth of a new cross-functional system, and, let's emphasize, first of all, a purely personal system.

What is the epistemological meaning of the given results? Here, briefly, are the main ones **stages of creating a subjective image** in these special conditions:

The first is *the sensitivity of the visual analyzer that received the energy of external influence was insufficient due to its low power, so the analyzer was unable to turn it into a fact of consciousness immediately.*

The second is *delineation of the perceived object – its appearance on the retina and the formation of its outline also turns out to be incomplete, with undefined boundaries and cavities in its integral image.*

The third is *the already existing subjective perceptual task determines the complex transformation of reflexive acts into cognitive actions (sensory, perceptive, reproductive, thinking), which carry out image changes and fixation of differences, due to which the energy of influences is transformed into a defined image.*

The fourth is *the movement of available, but not sufficiently complete, information about the subject causes the actualization of personal structures (experience, states, orientation). Hypotheses are created – images that change into more believable ones.*

The fifth is *the development of an image due to the reflection of an object and its objectification by highlighting its features, structure, assigning it to a certain category, verbalization and up to the revealed solution of the perceptual problem.*

The sixth is *art. Analysis of psychological components, which is necessary when a person moves from perceptual tasks to more complex manifestations of cognitive, spiritual and productive activity.*

This moment and mechanism "captured" in H.S. Kostyuk's experiment is methodologically very significant. It testifies not only to the fact that development has its own regularities and mechanisms. Another thing is more important – the development of any human process is always and exclusively a personal phenomenon, since only integrity generates a new integrity within itself as a complex interfunctional psychological system (temporary or stable). In the described research, in our opinion, that "droplet" is singled out, in which the main mechanisms and regularities are concentrated in a concentrated form, which can be transferred to the entire personality.

Next. It is important to understand the structure of the personality as something that arises quite naturally and rigidly determined. To really understand the meaning of this thesis, it is quite appropriate to use an analogy with the existence of a living being (animal). Its attributive properties, such as nutrition, irritability, secretion, reproduction, etc., "require" the appearance of the corresponding organs (structures). O. M. Leontiev convincingly showed this in his study of the phylogeny of the psyche [147].

The sequence is exactly this: the essential property (function) arises earlier and in its existence and development actually gives rise to the organ (for example, movement appears much earlier than the morphoanatomical formation – the limb of a mammal, etc.). We have no

reason to believe that the formation of the personality structure is not subject to this pattern.

The importance of this provision can be seen in the fact that its implementation shifts the emphasis of the research: from the ascertainment and description of the existing (as it has already become) structure, one should move on to the study of the process of its formation, and it is in this process that real deep and essential mechanisms and regularities are discovered, which ensure the emergence, existence and development of the personality structure as integrity

On this path, we immediately encounter a significant problem that remains unsolved in personality psychology, despite the fact that most psychological theoretical and empirical research is dedicated to its solution. If the very existence as an active self-movement of a human being gives rise to the personality structure, which is a necessary condition for this existence and development, then the primary question arises about the origins (sources) of this activity. This is really a fundamental problem. And it is not surprising that any theoretical construction in the field of personality psychology necessarily includes consideration of the origins of human activity. At the same time, we find ourselves in front of a very interesting and revealing fact – it turns out that in all modern psychology there is no scientifically based and generally accepted view on this, if not the most essential, aspect of science. The interpretation of the sources of activity and the mechanisms of their action turns out to be so diverse and versatile that their analysis alone requires very great efforts and voluminous texts (we can refer here to one of the rare successful attempts at such an analysis made by H. Heckhausen [293], however, this analysis did not lead to any general view). We see a number of significant reasons for this state of affairs, if we do not seriously consider the desire of some researchers to "impose" their own logic on the object of study. It is not about these attempts, but about serious research. One of the reasons lies in the rejection of the genetic aspect of the analysis. "Sectional" techniques and theoretical generalizations built on the results obtained with their help simply cannot, so to speak, "by definition" answer the question about the real origins of personality activity. We will not list here the reasons for this, which were analyzed by L.S. Vygotsky [67].

In the genesis of development, it is possible to hypothetically predict that a newborn child is not just a very complex biological system¹. She is a human child, since the unique interrelationships of the nervous system and physicality determine the special state of this being – the state of readiness to enter the social world and become a person. But this state is caused not only by a unique biological structure. The genesis of this phenomenon is as follows: the beginning of the birth of a person lies in the social conditions of the interaction of two individuals, which are physiologically connected for the further birth of a biological being, as a continuation of its kind. It will then become a social attribute of the entire collective ontological existence.

A born biological being is the embodiment of a need as an initial tendency – a drive in the need-motivational understanding of the world. This need, in turn, turns into a need, and as a perceived need, into a motive. Therefore, from the beginning, a personality in its formation has a double motivation – a need and some prerequisites that can be fulfilled. This gives rise to the need-motivation sphere and later grows into the structural components of the personality. Even the worldview component is born from the sensory-perceptual field, which is born in the meeting of needs as a certain biological dynamic-information formation with the social world. Need, as noted, is understood by us as a certain basic state of a biosocial being, which expresses an objective need for a supplement that is outside of it. We say that need is a basal state, meaning both its primacy as a source of motivational activity of the individual, and its depth and original unity (syntheticity).

The initial need of a human being is set and determined by the very specifics of the organization of life and is fairly constant during ontogenesis. In fact, it is a need to live, be, be realized and continue in another personality, as well as in one's works.

Need creates and defines (outlines) the need-motivational space of each individual, but needs and motives do not exhaust and do not cross out the basic constituent nature of the need. Each need is a partial and specific satisfaction of a need (not to say fragmentary). So, for example, the biological need for food is very essential, welcome, but it is only a part, a fragment of the universal need to live. The same can be said about other needs and motives. In this sense, need, unlike need, is not objective.

The very concept of need as a basic driving force explains the variety of human needs and motives (which is usually not explained at all, but only stated and classified). A need is met with a circle of biological and social phenomena that can partially (always only partially) satisfy it in different ways and to varying degrees. That is how needs arise, and that is why they are the ones that a person has. The fact that this is true is very clear if you compare the needs of people in modern Western culture with the needs of people of different eras or other ethnic groups. Then those influences, which we call social, pedagogical, etc., come into force. This is where mental processes, psychological states, and mental properties are born. And they pass through the need-motivational field. Being expressed, realized, realized through mental activity, they become our characterological, absolutely unique properties, because the amalgamation of biological and social is what gives rise to character. Temperament, like the genotype in general, represents the initial, set in need, in the need-motivational field of the deployment of abilities. Not abilities in the sense of "a person is capable of this or that", but simply that a person is fundamentally and purposefully capable.

When we ask the question of how personal development is carried out in genesis, how, as a matter of fact, a biological person becomes a person, the following point should be taken into account: this initial sensitivity and a certain manifestation of need is realized through social influences in higher mental functions, creating a unique, a unique, absolutely stunning system of sensory-perceptual, imaginative, motor and other manifestations. Complex cross-functional mobile dynamic systems are created, which collectively make up what is commonly defined as the personality structure.

When we ask the question about where the origins of the psychic are, the answer is as follows: the beginnings of the psychic are in need, which later grows into need. In turn, the need determines the social influences that satisfy it. So, at the personal, holistic level, we have a unique mechanism: it is not the stimulus that acts on a person, but the person herself, very early on, chooses some expected stimulus from among many, namely, the one that corresponds to her actual need (need). For their part, these initial needs are a manifestation of the fundamental anatomical and physiological basis, which is manifested in

predispositions. They have the property and ability to develop exclusively in a social environment.

In general, it seems to us that the psychosexual personal interaction between two people is genetically original, repeated billions of times, in the formation of a personality, as a construct that appears in the biological product of this interaction (a human child) and appropriates the social as something that has its own origins and functional purpose and, in fact, the ability to develop to become a person.

Apparently, O. M. Leontiev was right when he said that the meeting of a need with an object entails the birth of the psychic as such. And when it is said that the need was born in a pair of lovers who have a mutual need to give birth to a person, we mean that it is she who acts as the genetic basis that gives birth to a subject or an individual or a biological person who repeats the path of his parents. Thus, the need of loving people of different sexes for each other and their need to continue each other through the creation of a new person grows into some simply stunning personality. In what way? It turns out to be very simple: between two individuals of the opposite sex, a third is born, which carries the vector of their essential forces. This, from my point of view, is a fundamental initial genetic fact, which psychological science has "diligently" overlooked for a very long time.

If we talk about love, then it always gives birth to a new vector creature that is desired and expected. If the birth of a new being occurs without love, without its expectation, desire, without hope for it, then this is an act of a simple (animal) birth of a biological organism, which does not carry within itself the strength of a courageous relationship to the world, because it is not eternally embodied the highest spiritual manifestations of a person – love, are not embodied in him and high levels of anatomical and physiological abilities that can give the future person the ability to become a beautiful, necessary, good person.

Social persons who have appropriated in their formation the experience of generations, which has become their biological essence, in their paired interaction, which is based on sexuality, in a bright and sharp moment, which is directed and capable of reproducing offspring, lineage, create and root in the world only what they can. And in these interactions, either genius, talent, or mediocrity, or in general – homelessness, sprouts. Everything is determined by the real need that united these people.

The world is recreated in the human child, who carries within himself the primacy of the whole, and the need for this whole generates a selective function in relation to society. And society, responding adequately to a person's needs, actually develops his needs, his orientation, his sensory and perceptive sphere. And this is the key to understanding development: this is the genesis of the development, beginning and functioning of the personality.

This provision makes it possible to significantly clarify one of the original ideas of existential psychology about the "abandonment of man in the world". At the same time, existentialism does not imply "uselessness", "homelessness" of the individual. It is about something else: "abandonment" means that a person himself did not determine the year and place of his birth, the level of development and features of the culture he "got into", his immediate environment. She gets here, therefore – "throws in". And two fundamental possibilities open before her – to adapt as much as possible, to "go with the flow", – to become a "screw", that is, to dissolve in this billion mass, – to become a "slaveown world project" (says R. May). Or, and this is a fundamental alternative, to realize oneself, achieve transcendence, "go beyond" the circumstances and... come true, finally overcoming the state of "abandonment". Our clarification, which follows from the fundamental position regarding the genesis of the personality, is related to the fact that "abandonment" will be of different degrees and different intensity of alienation, depending on how the need led to the birth, appearance in the world of this person. If she is expected, desired, if she is the fruit of real love and the result of the realization of the socio-biological historical potentials of two people (parents), this person cannot be called "abandoned into the world", because she does not simply exist from the beginning, she coexists in it, because biologically, socially, and spiritually she is not alone. What kind of relationship between two loving people leads to the birth of such an individual can be considered the central problem of transforming a need into a socially significant human need. We are not alone in the world and in knowledge. This is evidenced by M. Buber's opinion analyzed above.

In fact, the process of becoming a person as a whole represents, as it were, exhausting from the existing need (need – to live, to be) those possibilities that could potentially be in the individual. But there are none for various reasons. The fact is that society in that specific time and

specific historical and economic conditions, when a given individual enters it and exists, quite rigidly determines the manifestation and development of some abilities and the suspension and non-realization of others.

A social individual (that is, an individual who becomes a social being, the bearer of universal-historical abilities) first exhausts himself in his possibilities in order to maximally absorb from the given environment those potentials, those forces that are inherent to him. And then these forces return to the social environment in completely different guises. They return in social, mediated, subjectively significant for society and for the individual need-motivational forces.

The original need as a universal human intention not only determines activity of the child. In this activity, the development of integrity and its essential content components begins very quickly and early. According to some empirical data, as we have already noted, a human child is fundamentally different from an animal in the field of feelings already in the first months after birth. This difference is manifested in the unusually early development of feelings, which are usually called higher: aesthetic, intellectual, moral. These feelings emerge from a general sensuous undifferentiated state, which Gaffding called the "feeling of life." This state already bears a special imprint, which places it above the instinctive life of animals.

The very "feeling of life" can be considered as the sum of physical sensations that come from all points of the body, but in the beginning it is determined, mainly, by the existence and satisfaction of purely vital needs. But due to the fact that need also forms other, purely social and spiritual needs, the sense of life acquires a higher imprint, which should be considered as the germ of the future predominance of spiritual life over animal life. This new direction can be noticed in a child starting from the second half of the first year of life.

The unique integrity of the human being encompasses not only the affective sphere (needs and emotions), but also the intellectual realm. The fundamental unity of affect and intellect is constituted, in our opinion, already at the early stages of ontogenesis by the unity of the biosocial nature of need.

Need prompts activity in which the individual meets various objects of the social world. Choosing the object that best meets the need is an essential event in a child's life. In it not only is a need born, in it the act

of knowing the world takes place for the first time, when conditionally reflexive (therefore, purely natural) mechanisms of the sensory-perceptive, mnemonic, intellectual sphere are specifically "fertilized" by need and need (affective), and an image emerges. Only now does that "key experience" appear, which Vygotsky considered the real "unit" of personality formation.

A complex combination in the meeting of affective and intellectual components gives rise to action, that is, directed and targeted activity, which, as we can see, has the character of personal action from the beginning. Therefore, personal action is that mental phenomenon that really realizes a certain aspect of need, "holds" in unity the affective and intellectual components of the personality and ensures their connective interaction. Whatever is the subject of psychological research – motor actions ("living movement" – according to Bernstein), the work of analyzers, personal actions – we must always report to ourselves that these are, ultimately, personal actions, which in the unity of their inner psychic content reflect and realize the single biosocial essence of need, and therefore – of the individual as a whole.

Further development of the personality as the assignment of the internal specificity of the relationships of close adults, and, on this basis, the change of interfunctional systems, the connection with the differentiation of the inner world. At a certain moment, there is an impression of the separation and divergence of the affective and intellectual spheres of a person. However, we tend to argue that this is only an impression. There is no dichotomy here, two combined processes operate here, providing a single unique phenomenon – life and the development of the individual driven by need. And if psychology does not see behind the formation, say, the methods of mental action of the single biosocial nature of the individual, which ultimately needs (or does not need) these methods, if, on the other hand, it does not see that every need, every motive arises and is realized in the obligatory contradictory interaction with the cognitive sphere (realizing the same single need every time), then these are the problems of psychology, and not its only object – the human personality.

Finally, we should note that after birth, a genetically original, constitutive factor in the development of a child's integral personality is the substantive features of the interaction of his parents and other adults around him. The child, in his activity caused by need, encounters

a large number of nuanced systems of relationships in the immediate environment. A meeting means not only the satisfaction of a need, the emergence of a need, it means the choice, assimilation of social ways of existence and development. What exactly the child encountered in the environment determines the presence of the first undifferentiated experiences, which are by no means insignificant.

Thus, personality as a higher form of existence of the human psyche is determined by biosocial relations and spiritual interactions of two people who give birth to it. Under certain conditions, a creature that is born, not only according to its anatomical and physiological parameters, but also according to the existing special mental state, is ready to enter society and has situational prerequisites, that is, to become a person.

Higher interfunctional interactions (higher mental functions) are carried out by the entire biosocial individual and rely on higher neural factors that have matured at this time. This process takes place as a dichotomous pair, in which there is, on the one hand, the development of individual abilities based on prerequisites. On the other hand, neediness, falling into the social environment that is adequate for it, brings to life personal qualities and properties. They are generated by complex relationships with the social environment¹, and the constitutive, genetically originating factor here is the relationship between the adults surrounding the child.

Further formation of the personality as a system of higher mental functions is carried out in the conditions of expanding the space of social life for the child, which contributes to the emergence of new functional systems, in accordance with which the biological – in particular, the human nervous system – changes its activity.

It is important to note that this movement – the development of the primary – begins with a change in integrity, and therefore is personal at all stages of ontogenesis.

Inner world

We will begin the analysis of personality substructures by considering the inner world. In general, this concept does not apply only to psychology. The point of view that only psychological objects have what we call an inner world is erroneous. In fact, as it has already been pointed out, any phenomenon of life and even most physical bodies have an external and an internal. The presence of external and internal is the

general principle of structuring nature, and according to this principle, human personality differs little from all known natural phenomena and bodies. It is about the level of internal development and the clarity of separation of internal and external in the human psyche. This is the first moment.

L.S. Vygotsky [69] gives a very interesting and beautiful definition of personality: personality is what a person becomes for himself from a person in himself, because of what he becomes for others. If you analyze this opinion, you can determine what Vygotsky meant when he spoke about personality as a whole. Of course, he meant, first of all, self-awareness, he writes directly about it in some works: it is with the emergence of self-awareness that we associate the real emergence of personality as such. But the human being has an inner one from the very beginning, from the very beginning of its birth as a being, from the time of fertilization and the appearance of the first cell – it already has an inner and an outer one. And it always exists, throughout a person's life. L.S. Vygotsky says the following: up to a certain point, it is internal to a person and only for this person is considered as an "object in itself". That is, the one who carries the inner has not yet stood for himself, because he does not yet know that he has the inner. And Vygotsky connects the emergence of a person with this transition: when I realized, saw that I have an inner self, when I realized that I have experiences, when I realized that I have thoughts, when I realized that I have there are ideas, and saw them, and felt them, and recognized them, then, in fact, I appeared, a personality appeared. In fact, let's repeat, it is about the emergence of self-awareness.

This transition is fundamentally and fundamentally important, and here Vygotsky indicated the path of this transition. He says that a person comes to this because of what he becomes for others, and this means that when I do not yet know about this inner world of mine, about what is in me, others already know about it, they already know my character, my thoughts, my feelings, they already see them, they know: I am smart or not, calm or restless, rich in my inner world or the poor, which images prevail in me, which character prevails in me. Therefore, I first became for Them. A very interesting thing arises: in a small child, from the very beginning of childhood, what is called personal relationships is established with relatives and loved ones. In these relationships, the child not only achieves the satisfaction of his needs, caused by his need,

and uses other people at the same time, he also reveals himself in these relationships. And she does it imperceptibly for herself, of course, not specially. In a small creature, there is not yet what is called in social psychology the process of self-presentation, when a person himself works on how to show himself to others, he simply shows himself – that's all. And this is somehow reflected in her. Marx was right when he said that a person first looks at another person like a mirror, and only then pays attention to himself. I am reflected in these people, and I know who I am from them. By the way they talk about me, what kind of communication they build with me: they behave accordingly, include me in some matters. The main thing is what they say and compare; and this is precisely what leads to the fact that I, following them, begin to look at myself with my own eyes: first I look with my eyes outward, at them, I see them, I turn my eyes and with their eyes I first look at myself, at myself, and then at my own eyes I return to myself. And so I get to know myself and become a person for myself. Here are three stages, three moments that Vygotsky records, and this is what they mean: I become a person when I transform from a person in myself to a person for myself: because of who I am for others, because of a person for others. This is the first thing I wanted to say about the inner world.

As for the very content of the inner world, it exists from the very beginning in the young child and is undiscovered by him. It represents what we, following Freud, after his great discoveries, call the unconscious. That is, these are instances, needs, images that are not realized, but at the same time they cause activity. A child is aware of a need that arises when a need meets an object that can satisfy its (needs) specific branch. For example, a child may not even know what she wants to eat, she is simply worried about the lack of something, and only when there is an encounter with food, this anxiety disappears, the first moment of awareness of need, the state of need, arises. And then it differentiates itself into the need for food. This is how other needs arise, because the need is also satisfied with the help of other objects. So, already at the beginning, intentions are not only what Freud saw: stormy, gloomy, incomprehensible, Id. Initially, there is a shade and imprint of the social. In the inner world of a small child, we never have only the biological. And this is the biggest mistake that, according to Freud, everyone repeats and does not want to realize. This is purely and exclusively biological only in a sick person, an inferior personality, and,

by the way, deeply inferior, because from the very beginning, all the drive, all desires consist of both biological and social things invested in her by her parents. And that is why the inner world is not represented to the child, she does not know about it, but she already expresses it: crying, actions, other types of activity. She expresses this world without yet knowing about it.

There is an interesting idea of I.O. Sikorskyi [260] about the first acts of awareness: the child strives to repeat new movements, body positions, etc., because this is connected with the simultaneous emergence of internal experiences. Repetitions allow you to "learn" them, get used to them, make them your own. These are, Sikorsky believed, the first germs of the inner world as a special and quite real content. And these are the first "flashes" of consciousness. Along with this, what I know about myself appears from the outside world. And this unity of the conscious and the unconscious is complex, contradictory, but still a unity, and constitutes what we call the inner world. He is really contradictory in this opposition: the initial genetic opposition of the unconscious and the conscious. Consciousness appears as a relationship, as a person's knowledge of something about himself. The mechanism of this phenomenon is well studied within the cultural-historical concept, so we will not discuss it. It is more important for us to "keep" the idea of genetic movement.

The original contradictory unity of the biological and the social generates needs, goals, it then generates values. Meanings and meanings arise, and all this is presented in the form of an image. What is an image, what does it mean to have an image in a person? P.Ya. Halperin, among other things, said that the real subject of psychology is the image [74]. This is a very bold statement, and it seems completely far from the globality of the psyche, but if you think about it, what does the emergence and presence of an image mean? And this means that there is some subject who builds and contemplates the image. That is, there is an I, there is a personality before whom this image exists, and this is too difficult for modern psychology. This means that in the inner world there is not only the conscious and the unconscious, but the conscious itself is very complexly dismembered, and in it there is an object (image), and there is a subject who sees it – and all this is an extremely complicated version.

How does an image arise? It does not arise from the fact that I see or hear something, and it is as if it is already an image. This is far from an image. Let's recall what H.S. Kostyuk's experiment showed. It was a long, very long process: the image appears as a result of a very long, integral active process, and in this process, reality seems to be exhausted, and what is adequate to this reality is rebuilt. The presence of an image means the presence of a person, means the presence of the conscious and unconscious in it, therefore, means a uniquely complex situation and a uniquely complex structure. We now say that all the wealth of the inner world of the individual is transformed, assimilated by him from the surrounding reality. But a very important question arises: how do images of those objects and phenomena arise that a person has never perceived? Why can I imagine distant galaxies, distant planets, I can imagine the laws of universal processes that I have never seen, never heard of and knew nothing of? We think that such constructions, their very possibility is of great importance, not yet appreciated by psychology. The diversity of the world is much greater than we can imagine; when we say that man includes the entire universe, it is true. After all, we can really think and see what we have never seen and never heard about. It cannot be explained only by the process of imagination, in any case by what modern science understands by it. This is really a problem.

In any case, when we talk about the inner world, we are faced with very serious mysteries, and one of them is the mystery of the spiritual. The spirit is a complete reality if we are talking about a person, his inner world. It would be wrong to talk about personality and not talk about spirit. It seems to us that it is wrong to impose restrictions on psychology, as if the spiritual, the soul goes beyond the boundaries of this science: the problem here is in methods and theoretical positions. And the spiritual is an essential attribute of the individual and, as such, should be studied by positive science. We speak of the spirit as that which distinguishes man from all living nature, which makes him a being who can continue, give birth to value, give birth to the ideal, can act in spite of biological needs. And this is a creature that is drawn to love, to art, to morality. We say that these are very complex things and they exist and make up the inner world of the individual. What is spirit? We think we will find the answer in time when we understand how social life actually interacts with biology. How this contact actually gives

rise to the psychic, and how this psychic develops into spirit. The fact is that for a very long time domestic psychology did not deal with these issues at all, the expressions "inner world", "experience", "state" were not part of the scientific terminology at all. Because there was a huge "fear of substantiality". That is, when we talk about the inner, we say that there is a real carrier of it, and the search for the "homunculus" begins; if it's not a homunculus, it's a soul, and soul searching. It is close to theology, it is close to religion. L. I. Bozhovych was the first, very brave woman who, during the Soviet era, in her monograph, published in 1968, overcame this fear. She spoke about experiences as one of the elements of the inner world, and a very important element. It is the content of the spiritual life, the inner life of a person. Indeed, these questions are very fragile, subtle, but we will never get answers about the essence of personality if we do not boldly study everything, what is in a person. After all, science should not be afraid, it should discover: if we have a problem, then we should solve it.

If we generally talk about the inner world as a personality structure, the following should be noted: there are mechanisms for its emergence, it has a tendency to manifest itself, to express itself, and expression is a line of personality development. The expression of the inner through the outer (O.F. Losev very accurately showed this) is an essential feature of human life: we look for expressive movement, expressive words, expressive actions in a person because the inner exists, strangely enough, because it is expressed. It is expressed through experiences, states, actions, through words. If the inner world is not expressed, it will not exist.

When the inner is formed, it immediately changes; this formation is at the same time development. And when we talk about the expression of a thought, when it is expressed (incarnated), it always "pulls" another thought along with it, it is clarified, complicated or simplified by itself. It always changes. That is, the expression of the inner always leads to its own change. That is why it turns out that we cannot say, following Vygotsky, unequivocally that a personality arises when it becomes aware of the presence of an inner world, that is, it becomes a person for itself. In order for this to happen, this internal must already be there. It must be expressed, otherwise no one will realize it, it will not develop. Thus, we must look for the beginning of ontogenesis much "lower" (earlier), because otherwise there is a break in the single movement. If

there was no internal in the beginning, it would not be expressed, and therefore – it would not be formed. That is, there is always something internal in the personality, and we are talking about its development – complications.

Experience

In the analysis of the inner world, a prominent place should be given to experience, which acts as a central component of what we call the inner world of the individual, and in psychology this phenomenon has been studied for a long time and in many different ways. Traditionally, experience is interpreted as a synonym of emotional reaction. On the other hand, Yu. Vasylyuk in the very interesting book "Psychology of Experiencing" provides an understanding of experiencing as a process of actively overcoming, living as a person some unfavorable situations. We can formulate a slightly different point of view. Experience should be considered (according to the logic of the word) as the transfer of something into a living state, that is, the transfer of an event, a feeling, an object surrounding a person into a state of living perception, into a state of living attitude. That is, if we decipher this interpretation, we can say that the process of experiencing is, in fact, a representation of the consciousness of what is happening in the surrounding world, or in the biological body, or "inside" the personality itself. Thus, the term "experience" actually turns out to be relevant, that is, it almost corresponds to the term "consciousness".

On the other hand, we can talk about experiences as a kind of bridge that connects unconscious and conscious processes. And if, for example, we are talking about states (there will be a separate conversation about this in the corresponding section), then they should be separated from the experience. In this dichotomy, in this opposition of concepts, experiencing acts as bringing a state to a person's consciousness, that is, to put it simply, so that I can be in a state of affect, but not experience it, and not know that I am in a state of affect. When I experience a state of affect, it means that this state is represented to me. In connection with this, a number of very interesting aspects arise in general regarding the interpretation of the inner world as such.

If the central place in it is occupied by experience (Vygotsky was also inclined to this in his last period of creativity, numerous personologists are inclined to this; as a matter of fact, V. Stern builds his

theory precisely on the understanding of experience as the central phenomenon of the personality), then it looks different, for example, the interpretation of an image. Earlier we talked about it as a central phenomenon of the psyche and mentioned P.Y. Halperin, who considered the image to be a subject of psychology in general and, probably, he was not wrong, but we want to say something else.

Traditionally, it is understood that a certain image is formed in a person, subject, thing, situation, and then this image is experienced, filled with some personal meaning, some emotional reactions. It seems to us that it should be understood in a slightly different way.

In studies of consciousness, its functions are usually reduced to generation and reflection. You can chop them up a bit, talking about meaning-making, but this, in general, is a generation. For some reason, they are separated, including in new works devoted to consciousness, from the very important function of consciousness, which was mentioned by O. M. Leontiev [149]. He wrote that the human consciousness is passionate. We should talk about such a function of consciousness as the experience of what is reflected. We can also say that between reflection and generation there is a moment (there is a function), there is a stage of bringing the meaning of what it reflects to a person as such. Perhaps it is not so. But as for the image, we would say that the sequence of events is not such that a person first builds an image and then experiences it, but, in fact, the construction of an image, the image itself and its experience are, in general, one and the same exactly. Image is impossible without experience. And if we recall again the experiment of H.S. Kostyuk, which we already talked about earlier, and other studies, that is, purely scientific and empirical data, and if we talk about everyday knowledge, then we everywhere encounter the same phenomenon: the image is always passionate. He is always mine. That is, the very fact that this is my image means that it has passed through the entire personal structure, through the entire experience, the entire past and future of this particular person. And therefore, it simply does not make sense to separate the phenomena of experience, reflection and generation of an image. We do not experience an image, we build an image after and in the process of experiencing it, so to speak. And in general, in time it is just a simultaneous act (it is one act). And, by the way, in G.S. Kostyuk's experiment, there the simultaneity of image construction was broken, a successive process took place due to the

very complex conditions of image construction, and a completely different thing is observed: there one first experiences, and then constructs an image. And this experience is very clearly visible in the behavior of a person and in his statements, even according to psychophysiological indicators, such as pressure, temperature rise, pulse rate, etc. That is, the image is experienced. Experience permeates experience. In this context, the idea of it as a subject of psychology is, of course, somewhat tendentious. If the form of existence of the human psyche is the personality, or, as S. L. Rubinstein wrote about it, the human psyche is personal, this means that all the processes that take place in the human psyche are personal processes (and V. Shtern and L. S. Vygotsky, when they said that the whole arises and develops earlier than the parts. Therefore, the human psyche must be studied from the top, that is, from the individual, and then further to its components, and only this way of research is adequate); in this case, the system of experiences is a valid object: not a subject, but an object of study of human psychology, not even personality psychology.

L.S. Vygotsky was inclined to think that experience is a real "unit" of personality analysis. His views were supported and developed, as already mentioned, only by L. I. Bozhovych, who considered experiences to be the most important psychological reality of the individual. "Experience," she notes, "is like a knot in which the various influences of internal and external circumstances are tied" [38, p. 154]. Unlike L.S. Vygotsky, she did not recognize experience as a "unit", that is, as a whole that cannot be further decomposed, but on the contrary, set the task of analyzing and studying "those forces that lie behind it and determine the process of mental development" [38, with. 154]. Unfortunately, such an analysis has not been done. Instead, we have several conceptual models of this phenomenon, none of which is derived from actual scientific data, but is a free interpretation of the views of the authors.

The main problem of experimental research of personal experiences is usually considered the impossibility of achieving a completely adequate representation by a person of exactly what and how he experiences. Because when we give a person the task of describing his experiences, we thereby create a different experience and a completely different image in him, and therefore this looping, gluing will never give us an objective picture.

Such a problem, we repeat, exists, but it is by no means unsolvable. It's simply a reflection of the actual super-complexity of the phenomenon and at the same time the result of a partial and one-sided approach to experience. It is believed that it exists and is expressed, so it is necessary to "seize" this expression in the experiment and interpret the experience itself "according to it". It will not succeed and cannot succeed in such a formulation of the question. After all, there is another side of the process: "it is not experience, – says M.M. Bakhtin, – that organizes expression, but on the contrary, expression organizes experience, for the first time it gives it a form and a definite direction" [25, p. 86]. (If we compare this statement with Vygotsky's position regarding the fact that thought is not simply expressed in a word, but also formed in it, it will become clear that a general mental mechanism is revealed). Correlation of experience with expression, in our opinion, reveals the actual way and space of existence of this mental phenomenon. Expression is not just a function of personality, but is its necessary and basic attribute. According to O.F.Losev, let's remind, personality is, first of all, an expressive form, that is, it is a form of expression. And "expressive existence is always a synthesis of two plans, one – the most external, obvious, and the other – internal, meaningful, such as is assumed. Expression is always a synthesis of something internal and something external" [156, p. 45]. According to the philosopher, in the expression of personality, the identity of its external and internal is presented. This manifests itself, for example, in the fact that perceiving a personality purely externally, we at the same time seem to encompass the internal, that which is revealed in the external.

So we have three worlds of personality: "inner being" – essential, meaningful ("prototype" according to Losev); "external being" – the appearance, face, behavior of an individual, and the external world – the space of being. They constitute a single moving whole, and experiences arise "at the junctions" of these worlds. So, on the one hand, expression generates experience, shapes it, and on the other hand, experience is not expressed, but defines and fills expression with real meaning. The affinity of experience with expression allows to do assumptions about its structure. It is unconditional that the experience has its own structure, that is, it is a mental substance, since it can be represented in the human mind precisely as a form. But, at the same time, it is also unconditional that it is constantly in motion, and is as if blurred at the same time in all

"worlds" of the individual, and therefore cannot be a structure, but is a constant formation. Such duality (simultaneity – succession) of experience makes clear the impossibility of "capturing" it in traditional experimental research. It should also be added here that the complete merging of experience with personality does not allow to isolate it even artificially, for the sake of analysis, as we do with other mental phenomena. After all, the personality itself cannot under any circumstances distance itself and stand in opposition to its own experience. In cases where it seems to her that such an operation was successful, we are talking about a completely different experience, and not the one about which the "confrontation" arose.

A special problem is the process of experiencing. We have already mentioned that it appears on the verge of the collision of the "worlds" of the individual, but there are certain essential features in this. Expression and its highest personal form – embodiment – gives rise to a fundamentally new form of coexistence between man and the world around him. Embodying – "is the imprinting of living activity as the life process of human essential forces in an object, – notes G.S. Batishchev, – is the transformation of the logic of the subject's actions into its own object-fixed image and the subject's finding of its reality in objects, which carry and preserve the image of his action [24, p. 99]. The result of such a process is that the world ceases to be before and against a person, but turns into his world, which exists around him. S. L. Rubinstein says: "Man is inside being, and not only being is external to his consciousness" [255, p. 262]. It can be argued that the experience arises precisely when the external world has become the world around me, and not in front of me. And this is, in our opinion, an absolute condition for its occurrence. At the same time, the way of existence of personal experience follows from this. A person embodies himself as an individual a unique social whole, as a kind of totality of its sociality: "The result of its embodiment is its work" [24, p. 100]. The work is what makes our life and our personality eternal. Moreover, "work" should be understood broadly – it is everything that a person leaves behind and around him. So, embodiment is creativity. Of the same opinion and O.F. Losev: "The antinomy of consciousness and being is synthesized in creativity" [156, p. 177].

So, if expression – embodiment is creativity, then the latter is the way of existence of the experience that is generated by this embodiment.

It should be noted that the relationship described for the individual and the external world is, by nature, the same in relation to its inner world, which is also created by the individual. And it is exclusively a world of experiences, since, unlike the external world, there is nothing objective in it (of course, only for this individual). So **experiences arise in three processes.**

Firstly, in the process of transforming the external and detached world into my world around me. Secondly, through the creation of one's own external (personality), and, thirdly, in the process of creating one's own inner self (individuation). The world of experiences, despite its complexity, is never chaotic (the issue of personal ordering of experiences is a separate and fundamental issue that we will not touch upon here). Moreover, thanks to the expression – embodiment, as a universal attribution of personal existence, and the experiences that arise from it, the external world is not chaotic either (my world, which surrounds me, and does not stand in front of me). Chaos can be generated only and exclusively by civilization, and chaos is absolutely not inherent in the world itself. And a person cannot live in chaos or near it, as he cannot tolerate it in the inner world. According to M.K. Mamardashvili, a person can exist "if there is an opportunity and condition of a world that he can understand, in which he can act in a human way, be responsible for something and know something. And this world is created" [175, p. 100]... then what is the chaos here?

The presented vision of the nature of personal experiences allows, in our opinion, to determine the object of psychological research. Let's make some assumptions. At one time, K.-G. Jung noted that experience is an inseparable unity of feeling and understanding [323, p. 23]. But, based on the creative nature of this phenomenon, one more necessary element should be introduced. The structure of experience can consist of three components – feeling, understanding and action. Moreover, the latter is not automatic, not subjective, but a free personal, i.e., actually creative action. In this assumption, we rely on the theoretical construction of L.S. Vygotsky, who in one of his last works outlined a solution to the central problem of the unity of affect and intellect precisely through the completion of this system by action: "the degree of development is the degree of transformation of the dynamics of affect and the dynamics of real action in the dynamics of thinking" [72, p. 252].

It seems to us that this structure has a general meaning for any psychological entities.

Experiencing belongs to such psychological phenomena, in which all components merge in a single and instantaneous act. Therefore, a wholeness arises, which continues to exist, no longer disintegrating. Even those experiences that have ceased to be relevant are preserved in the same integral form, forming the experience of an individual. The experience is presented to other people and the subject himself in the form of a sign. According to Bakhtin, "experiencing can not only be manifested with the help of a sign... but apart from this external manifestation (for others), the experience and for the one who experiences it, exists only in the symbolic material" [25, p. 31].

The symbolic nature of experience can mean only one thing: the individual means his experiences, that is, we are dealing with yet another specific form of activity. In addition, this also suggests that experiences in a person's life are specific psychological means of mastering one's own inner world, behavior, and, ultimately, building higher mental functions and, based on them, complex interfunctional systems.

Experimental model of psychological research of personal experiences can be like this. It is necessary to create conditions for the manifestation of a person's creative activity and its expression – embodiment. The experimental situation itself should model the "world around me" into which you can "enter" and perform free (creative) actions. The situation must be developed, that is, represent a specific modification of the genetic modeling method. It is necessary to record experiences not by self-reports, but exclusively indirectly, establishing their contours and content in specific products and processes of creative expression. Experiments currently being conducted can provide an answer regarding the psychological nature of personal experiences, confirming, clarifying or rejecting the stated assumptions.

Below we will consider the specifics, individuality of the experience of a work of art and attempts to experimentally study this phenomenon.

Aesthetic experience, according to L.S. Vygotsky, remains incomprehensible and hidden from man by its essence. "We will never find out," he writes, "why we liked this or that work. Everything we invent to explain its action is a later invention, an absolutely obvious rationalization of unconscious processes. The very essence of

experience remains a mystery to us" [70, p. 20] (emphasis added). Since that time, psychology has learned very little about aesthetic experience, although now it seems that the work of L. S. Vygotsky simply had to become a powerful impulse for the study of this phenomenon. But it didn't happen... On the other hand, science, and especially pedagogy, did too much to lead people as far as possible away from a free, unencumbered by stereotypes and guidelines perception of art. It is now surrounded by a very powerful and exuberant halo of abstract intellectual constructions and their consequences – didactic teachings about exactly what should be perceived, exactly how to do it, and what kind of experience should be considered truly aesthetic, and therefore, full-fledged. There is a big problem with the latter, because if you collect all the definitions that apply to this mysterious experience and try to generalize – we will get something that, in principle, cannot be experienced, but even imagined. This happens when the scientific study of mental reality, a part of which is experience, is replaced by the "work" of researchers regarding their own logical schemes and constructions. Apparently, there is another way to solve the riddle that L.S. Vygotsky noticed. This path should be in the realm of psychology, and not in the realms of the researcher's own thought. Probably, one should try to study the very experience of art as an absolutely concrete mental phenomenon. To try to answer the question of how a person experiences art, but not to answer abstractly and detachedly (by studying a lot of worked-out definitions and schemes) and not introspectively (listening only to one's own experiences and applying them to all people), but to answer by asking a person about it, which is experiencing

Here we touch on a very acute, controversial and ancient aspect of the problem of cognition of mental reality (and cognition in general), formulated by E.V. Ilyenkov, as the question of the relationship between the "world in consciousness" and the "world outside consciousness" [118, p. 49]. This is an eternal question, although it was solved in principle by B. Spinoza, but psychology did not seem to notice this solution, with the exception of L.S. Vygotsky. Recall that the contradiction lies in the fact that evidence about an object, a phenomenon that is outside a person, necessarily refers to the inner world of the knower, and therefore objective, subject-independent knowledge of these external phenomena is considered quite

problematic, or rather – simply impossible. Because of this, of course, there are many different explanations and interpretations of the same phenomena. "All this is sufficient evidence," writes B. Spinoza, "that everyone judged things according to the arrangement of his own brain, or, better to say, took the state of his imagination's abilities for the things themselves" [266, p. 400]. But is it possible to judge things only according to their arrangement, neglecting the arrangement of the inner world of the knower? Definitely not, because the result of cognition is always a "picture" in the mind of the subject of cognition. But if that's the case, then we never get itobjective knowledge, but we are always dealing with a myth in which parts of objective reality and our own mental processes and states are intricately intertwined. This is especially exacerbated during the cognition of mental reality, because the person who knows, whether he wants it or not, necessarily "verifies" evidence about certain mental phenomena of the subjects, who, accordingly, have their own inner mental space. And this cannot be avoided. It turns out that psychological knowledge is the most mythologized. But it turns out that it is not the only one. The most advanced fields of knowledge (quantum physics, molecular biology, astrophysics) give rise to true mythologems (let's recall at least the principle of complementarity in quantum mechanics). So, the problem really exists, and this justifies our appeal to the seemingly long-known philosophical archaic.

In psychology, an attempt to solve the mentioned problem leads to a very interesting and paradoxical phenomenon – the construction of numerous "author's theories". This process was carefully described by L.S. Vygotskyi [67]. It is quite simple and exists in two main forms: you can build your own theory after studying a number of other theories (in general, it is not a theory, but just a scheme), you can add a description of a certain set of psychological factors to the study of other people's theories. The main thing is to create one's own scheme (as an imprint of the researcher's inner world) and then, like a lace, cast it on all the variety of psychological phenomena, considering some as "correct" (that is, those that correspond to the scheme), and others, of course, as artifacts, and ignore them. The phenomena themselves, of course, are not studied here, so everything turns out exactly according to Spinoza (see the quote above). That is, we have the same myth, albeit from the

other side. This is how the myth about the aesthetic experience of the individual arose.

Meanwhile, Spinoza really solved the contradiction. Its solution, let's recall, is that approaching the knowledge of the nature of the phenomenon (that is, objective knowledge) involves active reproduction by the subject of the trajectory of the movement of the "body" being known. And the more difficult this trajectory is the more unpredictable, the more varied should be the activity of the knower. If we use modern terminology, the subject of cognition must "exhaust" the phenomenon by his own activity.

How to apply this to psychology, which studies not just the "body", but the "thinking body", that is, another subject? It seems to us that for this we need firstly, ultimately abandon the stimulus-reactive paradigm of research and recognize the only possible form of knowledge is interaction and dialogue with the same free and active subject ("thinking body"), which is the researcher himself. And, secondly, to abandon the creation of schemes-myths, recognizing the researched as an inexhaustible and integral individuality, realizing that scientific generalization in psychology is possible only when the obtained facts are the facts of the individual's life, and not some separate phantoms. It is necessary to work with a person, not separately with his thinking, separately – with memory, separately – with emotions, etc. It is necessary to ask her questions, to "force" her to ask us – this will be our movement along her "trajectory", this will be her "exhaustion".

M.M. Bakhtin and K. Rogers take this position: in contrast to the natural and scientific subject, a person can be understood only by asking him questions and having a dialogue with him. With regard to our subject of study (aesthetic experiences of the individual), we proceed from the fact that every person, if his organs of perception are normally developed, experiences a work of art of any kind of art and any level of complexity. This is indisputable if, following VK Vilyunas, we understand experiences as a valid carrier of mental images. As such, subjective experience is a necessary and essential property of the psyche, but at the same time it is purely individual and specific. This is a controversial combination and makes it particularly interesting. To experience does not mean simply to feel subjectively, but to feel necessarily in a special, somehow specific way, and this is "somehow" directly "grasped" by the subject in the initial "language" that is

understandable to him. Can we seriously hope that by "grasping" the peculiarities of the experiences of different people, we will be able to understand something about aesthetic experience in general and not "dissolve" in "evil infinity"? We hope to prove that this way is possible and, moreover, much more effective than an attempt to build a certain theory-scheme with the subsequent "subversion" of empirical facts. After all, the difficulties here are purely methodological, and for experimental science, this is a common thing. So, in order to find out the specifics of aesthetic experience, we refused to focus on any schemes, but studied individual features of the subjective experience of a work of art in different people and only then tried to generalize.

The main, but also the only methodological difficulty of such an approach lies in the problem of verbalization by the subject of his own experience, which is primarily non-verbal in nature. Moreover, Tyutchev's "spoken thought is a lie" is only part of the problem. It is also very important that speech (and Vygotsky and Potebnia are unanimous in this) is not only an utterance, but also a change in what reflects this utterance: thought, as Vygotsky claims, is not reflected, but grows in the word, itself at the same time significantly changing and being completed ("thought" is used here in a broad sense, as in general any subjective psychological experience, including experiences). Thus, when a person tries to express an experience, he not only cannot do it accurately, but at the same time he actually begins to experience something else: there is a kind of doubling of the experience. It is also important that when expressing an experience, a person, whether he wants it or not, rationalizes it, and it seems that the emotional component of the experience disappears (if you ask a person who is happy to explain what exactly he is experiencing now, he can try this to do, but it will stop being happy). This phenomenon, by the way, is very well described in fiction. In particular, Konstantin Levin (the hero of "Anna Karenina" by L. Tolstoy) feels the beauty of nature very deeply, but it is unbearable for him to talk about it and he does not like it when others talk about it. Verbalization (read – rationalization) destroys his experiences, making them unpleasant, rude and inappropriate. All this, therefore, is insurmountable obstacle to the study of psychological experience, however, only because both the researcher and the researched, speaking about the experience, internally, imperceptibly for themselves, dismember it, pay attention only to the rational component and thereby

destroy the experience as such. When we say "experience", we almost always mean understanding. But the experience of a work of art is a whole mental structure, a "unit", and that is why an attempt to dismember it destroys it. Such attempts are a mistake of our everyday logic, which "suggests" that, apparently, experience consists of understanding and emotion as independent autonomous elements. K. Jung very accurately calls a work of art, which is born in the human psyche, an independent indivisible complex that exists autonomously from consciousness, although, of course, it can interact with it [317]. This interaction is an experience, but not an understanding, because "while we are engrossed in the creative process, we do not see and do not understand: we must not understand, because there is nothing more destructive to direct experience than study" [317, p. 23]. (By the way, in this opinion there is an answer to the question about the peculiarity of that activity that allows one to adequately experience a work of art: "direct experience").

This remark of K. Jung, since it applies not only to the creator, but also to any person who perceives a work of art, makes it possible to significantly clarify the subject of our analysis, that is, to answer the question of what exactly (what psychological structure) a person experiences. With regard to this mental structure, the views of K. Jung, L. S. Vygotsky and O. O. Potebny completely coincide, although they had different theoretical "worldviews" and, of course, used different terminology. L.S. Vygotsky understood what K. Jung called an "autonomous complex" as his own artistic image of fantasy that arises when a work of art has an emotional impact on a person. O.O. Potebnia clearly emphasizes such dynamics of emergence, asserting: a work of art does not captivate a person with a certain image and a given experience, but influences him, causing the formation of an individual-specific fantasy, which this personality is experiencing.

Of course, it can be pointed out to us that the authors we consulted not only use different terminology, but also interpret the nature of the structure in question quite differently. This is, of course, correct, especially if we proceed from the stereotypical interpretations of Jung's analytical psychology and Vygotsky's cultural-historical theory. But what is more important now is not the disagreement, but the fact that these three classics, the most competent in the psychology of art, established that the real psychological phenomenon that arises in a

person when perceiving a work of art is a certain integrity, a psychological product that the individual himself creates. This is common to all people. Individual refers to what kind of product it is, what exactly arises in consciousness; whether its existence is limited only to the psyche of the subject; will it materialize and become a Creation; how vividly and acutely he experiences it.

Having decided on the most general subject of the research, we can now return to the actual methodological problems. Firstly, our expression "to ask a person about his experiences" should not be understood too simplistically and literally, because in this case, as we have shown, the task is redefined and the subject becomes not experiences, but understanding. It should be about a certain questioning situation that would cause the explication of the experience itself. Secondly, we consider the problem of expressing the experience and its changes not as an artifact, but as an indicator of the psychological specificity of the experience. And this feature, hypothetically, can only apply to verbal expression, while other ways of it can be more adequate. On the other hand, a psychological product (we deliberately do not use the concept of "artistic image" here and in the future when talking about "product" or "structure", although it would be more than appropriate here. The fact is that this concept is used in literature, not at all connecting it with mental reality. Unfortunately...), created by a person in the process of perception – the creation of an artistic work, is being completed all the time, is in constant formation. And if this formation takes place in the story about the experience, then this, again, is not a defect, but simply a form of the existence of the experience, and at the same time, it is an individual form.

We can now dwell on some preliminary results. Proceeding from the obvious fact that the author experiences the most vividly and acutely a work of art, we conducted a survey of those people who create works of art (free survey was used – description followed by content analysis). Studying retrospective texts and oral narratives of people who create works of art, we were not interested in their interpretation of the motivation of creativity and the author's interpretation of the content of the work, since this is "inventing". We wanted to establish how a person feels psychologically at the moment of creativity, what he experiences. In terms of emotional well-being, the authors are very original, but this is what really attracts attention. A work of art, when it is created, is

experienced by the author as a separate, existing in his psyche, a living spiritualized subject (quasi-subject). He is aloof, there is a dialogue with him, and at the same time he is very active, has a pronounced motivating function, to the point that "he does not care about my problems, difficulties and desires – exhaust me with anything!". Such "coexistence" sometimes gives joy, sometimes scares, but always very emotional. In addition, it is very dynamic, ambiguous and constantly evolving. An objective confirmation of such a specific dialogue is the much greater than usual development of the authors' internal speech, regardless of the field of art they work in, because at this level art is clearly amodal. (By the way, the development of inner speech can be considered a very significant psychological indicator of the experience of art, and in this direction it is advisable to develop experimental research). The type of relationship between the author and the work at this stage is the very experience of each other, which cannot be reduced to either understanding or emotion. The presence of this complex complex in a person determines the individuality of the experience, not in terms of its difference from others, but in terms of what such a person can experience a person who is a developed individuality. We based ourselves on this, defining the specifics of experiencing art. In addition, the answers of our subjects indicate that the experience itself consists not of two elements, but of three. This third is imagination. "The image of the imagination," Y.M. Shvalb believes, "is embodied experience" [302, p. 65]. Moreover, this is exactly my individual experience, since the image is always purely individual. Imagination seems to "complete" the psychological structure of experiencing art and "explains" why it can only and exclusively be individual. It also becomes clear that the emergence of this experience requires a free, unencumbered by stereotypes and tasks, contemplation – immersion in a work of art, because this is a condition for creating one's own image. Returning to the authors' research, we must talk, on the one hand, about the level of differentiation of the Self: it is less differentiated in those of them who feel a fusion with the work ("I and the work are one whole"); here the experience of the work is lost and turns into the experience of oneself. On the other hand, it makes sense to talk about the power of the Self: either a person controls his experiences, relationships with the "image complex", or he submits to the latter.

It is clear that the experience of authors is a higher level of relationship with art. It is important because it sets an essential criterion: the presence of an inner-psychological object of experience – an artistic product. Our studies of the peculiarities of the perception of music and fiction by children of different ages show that such a product is created only at certain stages of ontogenesis and depends in its complexity (brightness, development) on many internal and external factors. In particular, at primary school age, only a small part of children can create an internal artistic product and are capable of reflecting their own experience of it. We call this feature aesthetic activity. In the literature, you can find evidence of differences in the experience of a work of art in connection with the presence or absence of aesthetic activity. How very bright (although somewhat peculiar) fact of such a discrepancy, let us cite, for example, the difference in the experience of D. Joyce's novel "Ulysses" by the hero of E. Hemingway, a teenage boy, the son of an artist (E. Hemingway "Islands in the Ocean") and the psychoanalyst K. Jung, which is described in his part devoted to this novel. This unexpected and distant comparison is nevertheless very revealing. The boy liked the novel, something attracts and repels him, but the main thing for him is the incomprehensibility and the hope that one day he will understand it. The internal artistic product is not created, but there is emotion, motivation and hope – these are the experiences of the hero E. Hemingway. K. Jung, on the contrary, demonstrates a higher type of aesthetic activity. He seems to carry out a simple and rational analysis of the work, and even one that he does not like. But the entire text of the work is really an extremely complex and extremely subtle experience of that "monster" – an internal image that is created and does not seem to want to end in the scientist's mind. Jung actually reflects a complex dialogue – experience, which he carries out with the unfinished image generated by his psyche under the influence of "Ulysses". There are a lot of nuances, feelings and symbols, hypotheses and disappointments. It can be seen how the author's experiences change in his statements, he himself understands this and treats it in a certain way, he cannot stop in any way and in the end breaks off his sketch without completing it. Acquaintance with this work allowed us to look in a slightly different way at the reason for the difficulty of perceiving works like "Ulysses". We assume that the main thing here is not some so-called special training of the reader, but rather

the ratio of understanding and experience. The stereotype of the perception of most people is that they first try to understand the work, that is, to understand the author's logic with their own logical system, to "attach" parts of their own life to it, and then to experience it all. If the author's logic is extremely difficult and is not subject to this procedure (that is, it is simply extremely individual and therefore cannot be stereotyped), then perception most often ends after the first unsuccessful contact. And the point here is not in the level of development of the rational principle, but in its dominance. The boy – Hemingway's hero – wants to understand the novel, but he cannot do it and ... the experience does not occur, because it is destroyed by the subject himself, in fact, even before perception begins. K. Jung, on the contrary, declares a desire to understand, but in fact he wants to experience the novel and, thanks to his artistic (you can't say otherwise) talent, he tries to verbalize this experience for the reader. But these two figures are similar to each other, due to the fact that they have not formed an internal artistic product – the third element of experience – imagination – has not "worked". That is why Jung, despite his talent, moves all the time inside his feelings, and does not experience the work.

We are able to conduct a longitudinal study of a person of normal intellectual development, continuously, starting from early childhood, for 20 years. Along with the early development of a certain inclination to painting (which did not receive further development) and good musical abilities, she is distinguished by an impressive ease of perceiving traditionally "difficult" works of fiction, in particular such authors as James, Kafka, Bulgakov, Nabokov, Hesse, Mishima, etc. .d. Our special conversations with the subject show that there is no show-off and "crap". He really likes it and finds it easy. The main thing is that the author is a real artist. "It's as if I'm talking to an interesting and kind person who sees the world in this way. I'm interested in comparing. I feel that I also have these worlds. One should not only ask what the writer wanted to say, what he teaches and what techniques he uses." It seems to us that in this case we are dealing with the advantage of experience itself in perceiving a work of art, when understanding as a purely rational operation turns out to be simply superfluous. Everything is "understood" already in the act of experiencing. Perhaps it makes sense to talk about a special ability to contemplate as a necessary condition for experiencing art. We understand contemplation as a

special, free and non-pragmatic perception that is not aimed at searching for "useful, strong" aspects of an object (according to S. L. Rubinstein).

Another aspect of the study of the individuality of experiencing art is related to the methodical procedure of obtaining a unique expressionexperiences in a situation of quasi-creativity. The idea is to externalize the psychological product – the result of perception in the forms of another kind of art. This process, on the one hand, stimulates experiences, and on the other, facilitates their expression, bypassing monologic verbalization. There is another, more meaningful layer of analysis in the mentioned approach, which we cannot consider in our part – this procedure really puts a person in the position of a creator and specifically combines contemplation and aesthetic activity in it. Such a position belongs to professional interpreters (director, conductor, choreographer, musician-performer, translator of artistic texts, etc.). We asked the subjects (students of the 10th grade) to read a short work (it was O. Green's story "Watercolor"), and then think of what kind of movie they would make based on this story. So we tried to create the position of the author, that is, it was necessary to create a product – the result of perception – and demonstrate his experiences. The experiment proved the existence of the described mechanism of experiencing a work of art. He also showed that this experience is known to all students without exception, although it has individual differences.

It is clear that our work has, so to speak, a production-research character, it should be considered as our experience of the problem to a greater extent than a scientific interpretation. We do not analyze here the qualitative differences of individual experiences of a work of art, because at this stage this could not be part of the task of our research.

But the main thing can be considered proven: if we move away from the given abstract theories-schemes and from epithets that "take away the breath" ("oh, this is a real (!) artistic experience"), and return to the individual, collect empirical (that is, scientifically reliable, verified) facts, it is possible to study the mysterious phenomenon of the aesthetic component of our consciousness much more effectively.

After all, we all have experiences as a result of perceiving art, and this clearly means that they are aesthetic. Next is the question about their content and research possibilities, which, as we have tried to show, is a problem that can be solved.

* * *

In general, the problematic of experience in the context of the study of personality formation could be explicated in the expression "experiencing needs" or "the need to experience", or, if we turn to the study of aesthetic experience described here, "experiencing the beautiful" or "the need of the beautiful to be experienced". Let's consider these explanations in sequence.

Need, as a unique intentional information source and carrier of life, psyche, can know itself if it becomes a fact of my personality (my experience, life). She herself creates in her life-long movement, which becomes more complicated, that structure, that knot, which is able not only to learn about her, but also to accept her and carry her on, but already subjectively. Therefore, I must arise as the embodiment of the need of two people in love in each other and in me – the future – to be able to stop, rise and – survive what gave birth to me. This is true transcendence. Experiencing need as the source and strength of one's life is not the same as realizing it. To experience is not only to know and understand, but also to feel, open up, accept and change; on the other hand, experiencing a need is not the same as experiencing an intention (need, motive, goal, etc.), although the psychological mechanism is the same. We really experience need when it becomes impossible to live, but ... very, very necessary, and we rise, renew, live... And we experience rarely enough, although this experience returns. For the genetic psychology of the individual, the process of emergence, flow, change, termination, new emergence of need experience reveals a lot. First of all, although need, let's repeat it, is a universal source – the carrier of any life (all life!), only a person can experience it as such, and the important thing becomes clear – experiencing implies a personality (who experiences). The difference between sensation and experience passes precisely along this line – sensation is a reflected reality, and experience is a transformed reality that has become my It is not for nothing that the experience of need arises in moments of crisis, breaking moments – I can no longer exist simply as an object of its embodiment, I either cease to exist altogether, or I open up, accept it, take a step towards it and experience it. And with this, I make her mine (myself), and at the same time I become different. And she, needlessly, for a short moment will become the object of my experience (I transfer her into mine – alive), and then we will become one, but I will already know about it. Thus, it

is necessary to have an object (that is experienced), but it is a special object, because I will be able to experience it only if it exists before this, originally and potentially in some relation to me. A need should, if you like, "need to be experienced" and only if it has such a quality, can someone ever experience it. In the same way, the "beautiful" must have certain attributive characteristics that determine its "aspiration" to be experienced (Vol. Solovyov strongly emphasized this in his time). Therefore, I will be able to experience only that, only the one who already enters my life in some definite way from the beginning. And finally, what does "survive" mean, what is this process itself? First of all, it is the process itself, not an act, it is a flow. You can only feel (that is, reflect) momentarily, the experience must continue. And at this time, I mean it and know it, open it and open it, change it and change it, and this is the creation of my inner world – myself. In general, this is a process of interaction: meeting (high emotionality, tension) – learning (inner work) – getting used to (introduction to the inner world, structuring) – transfer into experience (fading, loss of relevance) – a new meeting.

And this is where the "need for experience" comes from, when the need I once experienced is transformed and a new vector appears "on it" – "she" also needs experiences now. It should not be confused with the need for impressions, sensations, etc., because my need for experience is, in fact, a need for activity to create and develop myself, it is a way of self-development of me as a person.

NATURE

Character is certain stable forms of behavior and emotional response of a given person, which appear and exist, first of all, in his communication, social connections with other individuals, and are so specific, original and diverse that their totality is a kind of whole. a drawing" – a unique drawing of an individual. And it is not for nothing that in translation from the ancient Greek character, the word "forged" means the complete original imprint of this particular being. So, speaking of character, we note those stable, unique, unique connections and relationships that crystallize in this person into traits. Many researchers considered the personality structure as a set of traits (Allport, R. Kettel, G. Eysenck, and many others). Yes, it is important and really essential, but what lies behind the line? Behind it lies the entire structure of the personality. When, for example, we talk about a certain trait, in reality we are talking about a way of behavior, a way of human relations with others. In culture, it acquires a name, a word. A trait is a specific way of acting that characterizes the way of interacting with other people. Behind it lies orientation, the biological foundation of the personality, which is expressed in it; experience, which is very important in this case; and finally, the field of abilities. And, of course, behind it lies the inner world and inner experience: how do I see this world, how do I see other people? Can, say, kindness as a character trait be born with an inadequate perception of other persons, other people? This is very problematic. So, a trait is really a very important and essential quality of a person. This is a stable quality, a stable way of communication and interaction. It crystallizes the entire personality in itself, it is the manifestation of its integrity. And precisely because a person is unique, we have a variety of traits, unique character traits. But, noting that a person's past relationships, past connections are expressed in character, we are only telling half the truth: character should be considered not so much from the perspective of the past, but from the perspective of the future. The point is to single out those features that contribute to the further movement of a person, his new goals, and ways of achieving them. Character should be considered from the point of view of the future, not the past, because traits are a prediction, because they are stable, and because of this, behavior is predictable and expected. Character traits are formed based on the

future, because not only the existing system of relationships forms a trait. It is also shaped by what a person strives for. There is a third side: the character trait itself is a motivator. That is, I behave in such a way that it corresponds to my character traits. If I am an honest person (that is, I have the appropriate trait), I act honestly, I feel the desire to act in this way, and then I feel good and comfortable. We all know from life: if we act contrary to our character, we feel very serious internal discomfort. This happens because the motive is frustrated, because the trait motivates the behavior. And here we have another, deep, connection of all substructures. It turns out, if you think about it, that they are all related to each other functionally. So, a trait is both a way of behavior and a motive. Very often, a trait is also an ability, because if we talk about, for example, work capacity, perseverance, tension (tendency to hard work), we are talking about a trait, but at the same time we are talking about an ability. In general, we very often come to these combinations: a smart person is a characterological feature, but, on the other hand, it is also an ability, and on the third hand, it is also a process. It is very clear here that in fact our terms and names are really concepts, and they are so ambiguous that everything depends on the reference point. An experienced person is a character trait, but it is also an ability. The connection of substructures is very important and it nicely shows that in fact they are connected not only with each other, but also with a complete personality as such. Genetic psychology is primarily interested in the emergence and development of character. Of course, the emergence of character is related to the biological substructure. What character traits will be formed in a person very often depends on the nervous system and temperamental features of a person. This is generally undisputed. But the question is different: how does a trait arise? There is an idea that consists in this: a trait arises as a way to achieve a goal. What does this mean? There is a goal, and there are ways to achieve it, and there are usually several ways. For example, a student's goal is to get a positive grade on an exam. What are the ways to achieve this goal? One student sits down, diligently and carefully studies everything that the teacher requires, what is needed, what is in the literature and in the exam questions. He prepares and, in fact, goes to this goal. The goal remains the same, but we take another student who decides that it is possible to go the other way: to turn to an authoritative relative or acquaintance and try to "get out" of this teacher in such a way

that the requirements will be relaxed for him, and the goal is again will be achieved. That is, the path to this goal is different. The third student decides that he can just pay, and there is no need to look for anyone, and he achieves the same goal. The fourth decides differently, he can manipulate, he can pretend to be very sick, or, on the contrary, very "smart", very interested, worried about the teacher, his subject and so on. That is, we can see several ways to achieve the same goal. The question is which path a particular person chooses – this is his trait. After all, she is already an adult, and her character traits have already developed. She will choose the path that will be comfortable for her. Another can be chosen, but then it will be associated with discomfort for a person. His "own" path is formed in childhood, when the child does not yet have established stable character traits. For example, a child wants a toy – you can ask your mother, but she doesn't buy, then you can continue to ask your mother, or you can ask your grandmother, or you can be capricious and suddenly it turns out: the goal has been achieved. This is the way, and then we will call this way principled, frankness, cunning, or some other term. And then a stable path of behavior is formed. It is clear that this path depends on the nervous system, on the environment, on intelligence, and on other properties: on the experience of this person, and on the whole experience as well. And then it is stated: this is laid, although it is certainly only a potential: action, success and consolidation of a comfortable experience are needed. In any case, the formation of a trait is like the formation of a way to realize a goal. A person always has goals, because they are related to needs. And it is goals that are important, not needs, that is, what a person himself plans for himself. Thus, there is a strong connection of character with goal setting and consciousness in general.

The issue of the level of development of traits is important, and here we are talking about accentuations and psychopathy both as certain deviations and as the level of expressiveness of traits. This material is widely presented in the literature. What is important for us is that the connection with a complete personality is clearly visible here. After all, if, for example, we have in mind such accentuation as demonstrativeness (hysteroidity), its presence means that a person necessarily wants to become the center of attention, he seems to be fed by the attention of others, and cannot exist in any other way. These people are characterized by very strong repression, they often do not

remember failures, they believe in themselves when they get sick, and other people believe in it. And all this is done in order to attract attention, but it means that demonstrativeness is not only a characterological trait, here, as in a drop of water, the whole personality is expressed: it is also a special flow of experiences, a peculiar system of perceiving the world as a whole, a specific hierarchy of values; it is also an experience that reveals to a person whether it is necessary to move forward. Here the whole personality is concentrated, and in accentuation, in psychopathies, we again begin to see the integrity of the manifestation of human nature.

The problems of studying character in psychology are related, first of all, to the uncertainty of the subject of research. On the one hand, traditionally in research, the traits of a person's character are identified with the properties of his temperament. This tradition is especially stable in clinical psychology: E. Kretschmer, U. Sheldon, K. Leongard, M. P. Hannushkin, K.-G. Jung studied, in fact, a conglomerate of temperamental and characterological properties, calling it all by one term "character". On the other hand, another tradition consists in trying to equate character traits with personality traits. H. Allport, for example, generally considered the concept of "character" not so important for personality analysis: "...the psychological fact is that a person's qualities are simply what he has. For this reason, and in accordance with our own definition, we prefer this onethe understanding that character should be interpreted as an evaluated personality, and personality, if you like, as an unassessed character" [210, p. 239]. Thus, we are talking about character as a social assessment of behavior (personality as a whole) by other people. In fact, the phenomenon of character in such a production is taken beyond the boundaries of psychology. Both extreme positions can be easily explained by practical tasks (in the case of clinical psychology) and theoretical views of the authors (in both cases). But does this mean that the concept of character "hangs" and really does not have an adequate psychological subject? We don't think so. At one time, L.S. Vygotskyi noted that the rigidity of character research is due to an exclusively static approach, within which it remains, indeed, to deal exclusively with the classification of characters and argue about what a trait is, in fact, a part of character or a personality construct. Let's listen to the logic of L.S. Vygotsky. According to Vygotsky, the study of

character by observation and description of individual features, properties and manifestations is a necessary, but initial and insufficient stage of research. Because in this way it is impossible to understand the main – psychological essence of the phenomenon. Comparison and classification remains. L.S. Vygotsky, however, writes: "Characterology from Hippocrates to Kretchmer fights in vain over classification as the main problem of character. Classification can be scientifically determined and fruitful only when it is based on the essential characteristic of phenomena that are divided into different classes, that is, when it initially involves knowledge of the essence of the phenomenon... But the "essence of things" is the dialectic of things, and it is revealed in dynamics, in the process of movement, changes, formation and destruction, in the study of genesis and development" [72, p. 154].

In order to understand the peculiarities of the character of a martyr who goes to execution with joy, thereby defending his ideals, himself, it is necessary, says Vygotsky, to establish how and under what conditions this character arose, what makes the martyr rejoice, what, in fact, is the story this joy

"Statically, the character is equal to the sum of the known main personality traits and behavior, and it is a cross-section of the personality, its unchanged status, its existing state" [72, p. 156]. Before us is an ideal abstract-scholastic model of a "suspended" personality. It overcomes a misunderstanding: character is the sum (that is, what unites) the properties and states of a person. Of course, such a model is a scheme, the object of which (that is, what it depicts, "schematizes") does not exist in this form ("suspended" personality is, in fact, a dead body, and it is clear that it has no character doesn't have anymore). But, at the same time, this scheme allows us to understand something very important: character is the only mental phenomenon that we can observe directly, as a behavioral manifestation of the sum of personal traits. The only thing that should be added is not accidental, but typical, inherent, "characteristic" behavior of a person. We can see a character trait, unlike a personality trait, but these formations are fundamentally different, despite the fact that they can be called the same term. A personality trait has a value-meaning nature (but not directly motivational) and should be considered as a person's willingness to act accordingly. In this sense, Yeshua M. Bulgakov is certainly right in his

statement that every person is a good person. A character trait is a real way of solving life, first of all, activity and communication situations by a particular person. The existence of kindness as a character trait means that the above readiness has come a long way, "entering into" various relationships with other numerous personality properties (including biopsychological, temperamental tendencies), "meeting" repeatedly with different and ambiguous reactions from the external environment (primarily social), has formed a complex and stable interfunctional system, which determines such a way of actions and interactions, according to which another person is never harmed. This is difficult and not very likely. And in this sense (let's go back to M. Bulgakov), Yeshua's vizavi Pontius Pilate was more correct. It turns out that the interlocutors were talking about various mental phenomena! A character trait turns out to be related (and dependent) to a much larger number of factors and factors, so in a certain logic its very existence is problematic. Even the term "character trait" is rather vague, if not completely inappropriate and incorrect. At least we say: "good person", "evil person", not "good character", etc. On the other hand, the expressions "good" or "bad" character are used. It seems to us that this is not accidental. A "trait" of character ("kindness") crystallizes in itself not only the entire personality in its true complexity, but also the entire character, all other, so to speak, "traits." And that is why we talk about kindness as an all-encompassing quality ("a good person").

On the other hand, are the definitions of "good person" and "good character" always synonymous in terms of evaluation, that is, does it mean that a good person always has a good character? No, it doesn't mean. This is like a dominant and, at the same time, a limitation: in the most significant, valuable and important situations for him, in those that he consciously controls and, in general, "by and large", this person will not allow his actions to cause any harm to others. Here's what it means. But, at the same time, this person can be too passionate, principled, self-confident, etc. – and all this will not allow us to say that her character, in general, is good.

As we can see, there is still much that is unclear, and the number of questions the reader has is growing – and this is exactly what we were aiming for. The point is that the static model is limited and it does not allow understanding the real character in real life. Let's return to Vygotsky again, "to understand character dynamically – that is, to

translate it into the language of target instructions in the social environment, to understand it in the struggle to overcome obstacles, in the necessity of its emergence and development, in the internal logic of its development" [72, p. 156].

Character does not just appear – it is created by the person himself, and in this sense, character is the phenomenon that is most closely related both to the action of need and, on the other hand, to higher mental functions. Z. Freud attached great importance to character in his theory, considering it a system of inherited dispositions. In fact, Freud's character was completely determined biologically – it was a rigid attachment to the past: a person's character, like a convict in chains, is tied to his past. No one, in fact, can reject the influence that biosocial innate human dispositions have on character – this would be imprudent and simply wrong. But the very essence of the emergence of character is, in fact, connected with a person's effort to get rid of these "tortures" of the past, to master them!

The need causes movement of the individual – movement towards the world, towards becoming someone in this world, i.e. – towards taking a certain position. Over time, this movement and its direction will be realized by a person, but even before that, the character will basically be formed. How to explain it? The need is not an undirected force, on the contrary, it always (at the first stages – outside the consciousness of the person himself) directs it in a very clearly defined direction – towards meeting and interaction. A meeting creates a need, and a little later – a conscious goal setting, and interaction is a means. Moreover, we mean interaction in a broad sense – not only with a person, but also with any being, object or phenomenon. Interaction allows you to maintain and achieve a need, but not only that. It (interaction) acts as a "magical" mechanism, so to speak, of "reverse effect" – it allows you to master (sometimes – overcome) your own directly natural properties, drives, dispositions. B.M. Teplov, at one time, said that the emergence of character is a person's mastery of his own temperamental properties and dispositions [270]. Interaction is a process in which the whole person participates as a whole, no matter how partial and discrete this operation may seem to us. Hence the character as integrity.

So, in the interaction that is caused by need, ways of acting are formed, that is, character is formed. Why do we say that character is created by the person himself? Because interaction involves the action

of this person as a mandatory component, and action is such an activity that is motivated by its own goal. Goal setting turns out to be a process that occurs much earlier in ontogeny than is commonly believed. Let's remember at least an indicative gesture like failed grab. The latter is nothing but an action, and therefore it was caused by a goal: if the grasping succeeded, it would be one interaction and the appropriate means would be formed in it. If it was not successful, we have an unfinished action and the appearance of a new "figure" – a social adult who satisfies the need and destroys the goal, instead forms new ways of interaction and, at the same time, making them self-evaluative, prompts the child to set a new goal, already – to interact with by myself. And this interaction is, in fact, the creation of a new nature of the child.

L.S. Vygotsky expressed himself in a peculiar way about this: "Interaction with an adult leads us from the inherited nature to the new, "acquired" nature of man, or, using an old saying, from the old Adam leads a man to the new Adam." "But character," Vygotsky continues, "is a certain Adam, the new second nature of man" [270, p. 164].

It should be noted that the described phenomena are characteristic only of the early stages of ontogenesis – only here is a certain irregularity of features felt. However, very quickly a central and single main line of personality emerges – the "Life Line" (L.S. Vygotsky), aimed at social personal growth and the formation of a social position. Traits, ways of acting are organized and grouped around this line and, in fact, character is not any general behavioral manifestations, but only those that are stable and closely intertwined with this line. It is in this sense that we say that character is determined not by the past, but by the future in an individual's life. In this way, the character acquires regularity and structural design. L.S. Vygotsky and S.L. Rubinstein were in solidarity here, independently of each other.

L.S. Vygotsky wrote: "Character is the social stamp of an individual. It is a crystallized typical behavior of an individual in the struggle for a social position. It is a postponement of the main line, the lifeline of life, the life plan, the single life direction of all mental acts and functions" [72, p. 156]. S. L. Rubinstein noted: "Character traits are those essential properties of a person, from which, in a certain defined logic, the internal line of behavior, one act follows from the sequence... Determination, which is the essence of character, can be created in a

person in relation to what he does not care about" [253, p. 220]. But this means that the very presence of character means that this person has something in the world that he does not care about, that he is passionate about. And so we begin to understand the connection between character and orientation. Orientation structures the character and a strong fusion occurs, which determines integrity. The life path of each individual is, in fact, the realization of his orientation to the future thanks to individually specific ways of acting and relationships (character). Such a vision makes it possible to assess the significance of obstacles on a person's life path: overcoming an obstacle means strengthening the alloy of character and orientation and, on the other hand, diversifying ways of acting, that is, the appearance of new features, but within the limits of this "direction - character" complex.

Now we can understand the joy of a martyr going to execution, defending his ideals and values. His character was formed in unity with direction, overcoming a lot of obstacles, and each time overcoming brought the joy of victory and the joy of feeling right. This is the dynamics of life. And the situation of execution is regarded by this person as overcoming another obstacle. And she already knows that she will overcome it - that's the joy. This is how this character was formed. We have understood the psychological mechanism, but at the same time, it leads us to other, higher ethical spheres: it is here that we see the cardinal difference between character and personality. Jesus Christ and a suicide terrorist at the final stage of their lives act according to the exact same psychological mechanism - the preservation of their integrity, their values and ideals at the cost of losing their own lives. We will not be able to understand the fundamental difference in their behavior if we proceed exclusively from this final moment and exclusively from character. It should not be forgotten that this act is the final link of their life, and it can be understood only by analyzing the entire movement.

A number of acute questions arise, both personal and purely characterological. We can answer these questions by using the interesting concept of "key experience" (E. Krechmer, L. S. Vygotskyi, L. I. Bozhovych), which, according to Vygotskyi, fits the character of the individual like a key to a castle. The gradual creation of the "direction - character" complex in the ontogenesis leads, among other things, to the differentiation of the inner world of the individual. It singles out special

experiences that arise in connection with events that are the closest and most directly related to meanings and values (orientation). They, at the same time, are relevant to the character (if, say, the fate of my children is a valid meaning and a real, and not just a declared, value of my life, my character will necessarily be structured around this value. And then everything that relates to some extent to their fate, will be deeply and acutely experienced by me, literally affecting the characterological structure. On the other hand, my own goals and actions will necessarily be considered, analyzed and experienced by me in the context of this value. The activation of the key experience (actually, its invocation) is an event the life of an individual who forces to act holistically, in accordance with his true essence.

Thus, the formation of a key experience is a kind of reflection in the inner world of a person of the genesis of his character and orientation. From this point of view, Jesus is a symbol of openness to the problems of all people and concern for their fate, their spiritual condition. What concerns these spheres causes a key experience in him – deep, meaningful, "real". This turns out to be so important that he sees his death as the last means of returning people to goodness and spirituality. Let's pay attention: in fact, He accepts death not for the sake of defending his own ideals, but for the sake of other people. And this is fundamental.

We observe a completely different genesis in a terrorist-suicide: from the beginning, he divides all people into good "us" and bad "them". His ideals are that "they" (enemies) prevent an ideal (in his understanding) existence. Therefore, "they" must disappear, at least together with minelife – for the further existence of the ideal. This is closedness and deprivation, which has become a character associated with a narrow orientation.

The given examples are significant from another point of view – they clarify the real connection between character and human will. The proximity of these phenomena is recorded in the language – the expressions "strong-willed person" and "person with character" are synonymous. But the will cannot be equated with the character, which was clearly emphasized by S. L. Rubinstein [254]. The will acts as a factor determining an important, but only one quality of character – its firmness (strength, determination, perseverance). But, as Rubinstein rightly notes, character is not limited to these qualities – it "has its own

content that directs this force" [253, p. 231]. In other words, the relationship between will and character is complex and inverse: the will determines the degree of firmness and strength of character, and the latter, in turn, determines how, where and for what purpose the will will be manifested. And, therefore, will is not a part of character.

A person's character, as a separate and unique mental quality, has the following basic properties – strength, firmness, meaning, complexity, harmony. All these properties are polar, that is, they imply the presence of their own opposite (strength – weakness, hardness – softness, etc.). Strength of character is defined as an energetic quality – the energy of achieving a goal, the ability of a person to develop significant tensions while doing so, as well as when overcoming obstacles. An important feature of this quality is that it is an indicator of a person's ability to defend and preserve himself as a person. The strength of character is most of all its properties related to the orientation of the individual. It is usually considered as a purely positive quality, but we would like to note the following: in some cases, character acquires such strength that it suppresses personality, a person becomes dependent on his character and ... inadequate: such are accentuations and, especially, psychopathy – painful conditions, which, in fact, are a manifestation of the fact that the character "overcomes" the personality, it becomes self-valuable and super-valuable for a person, a person withdraws from the world, becomes inadequate. Paranoia can be seen as an acute example of an overpowering nature: an overvalued idea generated by a person "falls" on an overpowering nature, this eventually obscures the whole world and the ability to effectively exist in it. The fact that this disease is connected precisely with the character can be seen from the following: a painful idea turns out to be so connected with the ways of human interaction that any attempt to prove, to show that it is wrong, does the opposite – the person expects confirmation from the interaction (and not a refutation of the idea), therefore she is even more actively looking for and... finding the arguments she needs.

Firmness of character is most closely related to the will-power sphere of the individual and means strict consistency and stubbornness in achieving the goal, emphasized defense of one's own views. We tend to consider two modifications of this property – "hardness – brittleness" and "hardness – flexibility". The difference between them is fundamental and due to the effectiveness of the connection of character

with the personality as a whole (and not only with the volitional sphere). The first modification is characterized by rigidity: when faced with an obstacle that cannot be overcome immediately, a person can continue trying until complete exhaustion and a crisis of character ("breakdown"). Difficult maladaptive experiences of such a person are reinforced by high self-esteem, because he is used to his "firmness", which, moreover, is a socially positive quality. The second modification ("flexibility") implies a close relationship with intellectual processes and the value-meaning sphere. A person is capable of a worthy compromise and considers the situation of frustration not as purely characterological, but as personal (bright historical examples-antipodes – J. Bruno and Galileo). As you can see, the strength and hardness of character are, in fact, its dynamic indicators, and by themselves do not reflect all its features. After all, the character is characterized by a substantial wealth of various traits, including quite nuanced, subtle shades of their relationships. The complexity reflects the degree of development of the connections of these traits among themselves and with the personality as a whole. The real characterological profile of an individual can be understood only in the dynamics of the development of the specified properties. To make it clearer, let's return to kindness: why do people who have an innate willingness to be kind, as Yeshua thought it was (and not only He alone), so rarely have the corresponding character trait? A person can have a weak character, and then he does evil under the influence of circumstances, and gets used to it, a "habit" arises. Of course, at the same time, she experiences severe discomfort, but she cannot do anything – the circumstances are stronger. On the other hand, a person can have an extremely strong character, and then kindness turns into an obsessive idea, actually turning into its opposite. Goodness can not be revealed due to the lack of firmness of character, or "break" if this firmness is fragile, enter a state of affect or depression and commit a lot of mischief. Finally, a low degree of hardness of character can lead to the fact that a good person will not feel and react to the subtle circumstances of a difficult situation, and his kindness can turn out to be evil. All of the above relates, in fact, to the problem of harmony – disharmony of character.

Concluding the analysis, we would like to dwell on one important point, which is usually not taken into account by character researchers. The "common place" of psychology is the statement that character is the

quality that determines behavior, it actually represents the ways of behavior typical for a given person. But it seems to us that there is another aspect: character should be considered as a way of experiencing a person... himself, his I. Character, in this sense, is not identified with self-awareness, self-concept or self-esteem. It is an experience itself – a person's complete sensual reflection of himself. In psychological practice, this hypostasis of character is very clearly visible: a person who has problems in relationships, first of all, believes that these problems come from his communication partners. Then there may be an idea that she is doing something wrong (but this idea is exclusively situational and has a purely rationalistic meaning). It is most difficult to accept the position according to which the cause of the conflict lies in the integral inadequacy of the behavior and worldview of a given person, because here the integral experience of oneself is disturbed. Character as a way of experiencing oneself is close in meaning to the phenomenon of identity (E. Erikson). This aspect of the character is formed in ontogenesis together with its "external" manifestations, ensuring the uniqueness of the integral structure of the personality. And here a very difficult and important problem of certainty arises. This term is key for S. L. Rubinstein: "Definiteness, which is the essence of character, can be formed in a person in relation to what is important to him" [253, p. 221]. In general, the concept of "definiteness" is most often used by Serhii Leonidovich in works devoted to character. The latter means, in fact, the determination of a person in life – a clear understanding of one's own position, a differentiated attitude towards social values and other people. However, it seems to us that there is a certain problem, which in this sense concerns again the relationship between character and personality. Absolute certainty, certainty in everything and relative to everything (character according to Rubinstein) is, in fact, rigidity. It is here that it is very clearly visible that, firstly, character and personality are far from the same thing, and, secondly, that the development of a person is determined not by his character, but by the harmony of the relationship between personality and character. Flexibility and changes, which are so necessary in real life, can violate "certainty", but the limits of these violations are determined exclusively by the person himself as a complete personality. Character, despite all its importance, is still only a substructure of the personality, and the facts of a person's existence in extreme situations

or in conditions of severe maladaptation testify to the priority of the personal nature itself (in some cases, one can observe the actual loss of character traits by a person and its existence for a certain time exclusively in the personal. However, this cannot last long, a person appears to be psychologically exposed and traumatized... so he tries to "return" to his usual features). In general, it seems to us that the psychology of extreme situations could establish a lot of interesting things about a person's character, if it were to consider it dynamically, that is, genetically. So, determination, the presence of a strong character, and even just its presence (as I. Kant noted) is, in fact, a problem whose roots are in the personality and its formation.

Genetic psychology allows us to see another problem, "turned into a postulate" (to use L.S. Vygotsky's terminology). Let's pay attention – all definitions of character in one way or another gravitate to the ancient Greek "chekan", imprinting (clarity and... stiffness, almost like fingerprints – forgive us for this analogy). On the other hand, psychology is full of theses and arguments regarding the phenomenon of lifelong changes, the plasticity of character, its "openness" to education. Thus, we reveal a complete contradiction (if the "seal" is plastic, then is it a seal?). Undoubtedly, the ancient Greek definition contains a metaphorization of the phenomenon, because stiffness, ingrained character is the clearest parameter of psychological deviation (regarding psychopathy, this was well demonstrated by Kretschmer and especially Hannushkin). Normally, the character does not just change, it develops, while remaining a sign of this particular person. And thus, everything that is relatively stable and stable in character has its basis in personality. A person's psychological health in the context of character problems is determined precisely by the fact that a healthy person's character develops. These are not just changes due to life circumstances, age or health, but a progressive movement, the realization of potential and the formation of mental new formations of character. And if the last term is surprising (the concept of "neoformation", indeed, is not used in psychology in relation to character), it should be understood that such properties as flexibility, prudence, or wisdom fit exactly under the definition of a neoformation given by Vygotsky (such changes psyches that fundamentally affect the entire personality and change its life). By the way, about wisdom – the fact that it is not only a high level of intelligence, but rather character –

L.I. Antsiferova showed well in her last work [17]. Widespread everyday ideas, according to which the character deteriorates with age, cannot be absolutized. It can develop, and it is wisdom that acts as the final and most developed, realized hypostasis of a person's character. Traceto note "in brackets" that the psychology of old age is, in our opinion, in an absolutely "embryonic" state (sorry for the pun). The initial implicit position of the researchers about the "extinction", "involution", "disintegration" of higher mental functions at this age is by no means true. Following this position distorts old age in our eyes! The actualization of existential experiences leads to completely new and completely unknown forms of personality development, but this is development and progress. We cannot understand these people because we are sure that they "fade out", and our language, our words and approaches are completely inadequate – this is how a barrier arises (the mechanism here, as we can see, is the same as in early ontogenesis – we are sure, which is not yet a person before us and therefore complete ignorance of this being). Meanwhile, the understanding of old age should not proceed from the thesis that the biological in a person is exhausted, but from the fact that the personality is at the highest level of development... and at the same time retains infinite potentials for further development. Regarding the character at this age, let's express only one hypothetical assumption: the relationship between it and the personality changes radically; character ceases to be a substructure and acquires the status of an attributive feature of a personality.

The changeability and instability of a person's character is clearly manifested in the emotional sphere. M.D. Levitov once noticed an interesting pattern – emotional states, if they are experienced by a person often and for a long time, can turn into properties of his character. The condition determines the characteristics of experiences and behavior. This is a long-lasting feeling that colors life relationships. It can become habitual and, therefore, comfortable for the individual, no matter how paradoxical it may sound, when, for example, it is about depression, aggressiveness, affectivity or frustration. But, it seems to us, there is also an inverse dependence here: it is the character, as stable and habitual emotional reactions and behavioral manifestations of a person, that makes him open and ready to experience certain states. The mechanism of emergence of psychologically dependent behavior can be very interesting and instructive here. Modern psychology is not like

that already knows a lot about addiction. But this knowledge is enough to draw a conclusion – the tendency to addiction is a character trait, and here it is not so important what actually acts as a factor of addiction (alcohol, drugs, another person, or one's own personal preferences). It can be assumed that at the level of the mechanism, this property is caused by a kind of "shift" of goal setting from external objects and life motives to experiencing the state. We believe that the main reason for the "starting" of this mechanism is precisely the initial characteristics of the character: insufficient firmness, a break in the character with volitional qualities and orientation and, at the same time, vulnerability and openness – this is exactly what, as the old characterologists would say, creates a symptom complex of a tendency to addicted behavior. We will demonstrate this on such a very modern example as computer addiction. Even ordinary experience proves that among the huge number of people who use this device often and a lot, not all of them become addicted to it. And the problem here is not so much in the hierarchy of motives, but in the specifics of goal setting and character traits.

Usually, a computer is used as a means of achieving a goal that goes beyond human interaction with this device. It actually exists for this purpose, and the absolute majority of users regard it as such. But this device is specially made very attractive, it has a lot of emotional effects, and thus its use is accompanied by a kind of side effect – what happens in this case is bright, interesting, exciting. Therefore, "communication" with a computer can cause not only the experience of achieving an external goal, but also a positive experience of the interaction process itself. And this second experience, in turn, can act as an additional motivator – interaction acts as both a means of achieving an "external" goal and a valuable goal in itself. In some cases, this goal can take the place of the main (external) goal. But we are just interested here, in what cases exactly does this happen? It seems to us that the main content of a positive and psychologically comfortable experience that arises in interaction with the computer, there is a feeling of freedom – a person can receive information, manipulate images, relax without conflicting interaction and special efforts... People who by their nature cannot do this easily and simply in the real world, who get tired and overexert themselves from this world, finally, they get what they need there. And they get it easily, without effort. This experience, which they so longed

for, so hard to achieve (and some of them were unfamiliar with it at all), motivates, attracts and forces them to gradually change their behavior. This is how addiction arises, and we can clearly see that the role of character here is very large and twofold – its features can "provoke" addiction, and it itself changes as a result of frequent experience of a certain state of freedom, unrestrainedness, which actually means absolute unfreedom.

Finally, we need to address character structure. The genetic position allows us to make a somewhat unexpected assumption in this regard: the character of a person is, from the point of view of psychological content, a unity that cannot be further decomposed. We can talk about properties or aspects of character, but we cannot – about traits and some components (volitional, emotional, motivational, etc.). Character is a unit, the unity of a person's existence in terms of experiences and relationships, and the conversation about traits does not concern psychology, but philology and sociology. It arises as a unity – immediately and entirely as a unique value, in this form it exists and develops. We invent individual traits, projecting our knowledge of language and the nuances of human relationships onto the whole. In fact, each character is a unique combination of properties (not traits) that form an individual configuration of the personality and its existence. Yes, of course, strong-willed qualities, emotions, and orientation grow into character, but they are not its components: in this sense, character does not differ from other synthetic formations of the personality, which also have emotional, motivational, and other components. The specificity of this neoplasm is determined not by these elements, but by the fact that it arises and exists in direct contact with other people, other characters. It is in this sense that we can talk about the mediating function of character in a person's life. And when we talk about symptom complexes, it should be noted that we are not talking about some abstract features – words, but about a unique form (pattern) of properties and aspects. This is the reason for interest in character on the part of genetic psychology.

MENTAL STATES

We defined personality as the form of existence of the human psyche. There is a need to pay attention to the fact that this existence takes place in various states that constantly change, flow into each other and, in general, determine the meaningful features of a person's life.

Mental state is a phenomenon, for the understanding and description of which there is a catastrophic lack of scientific semantics: formal and logical constructions. It is only necessary to bring these "tools" closer to the state, as it loses the most important thing – color, flow, brightness, changeability. A scheme emerges that has nothing to do with the real state. How can we not mention here (once again) the very wise O.F.Losev with his criticism of scientism: the blue, deep, wonderful sky, he wrote, which is actually perceived and experienced by us, for some reason does not satisfy science; she has to translate it into terms of "atoms", "flows", "layers" and into lines of numerous formulas. Then there will be science, but... there will be no heaven. So what is the bigger myth? – asks the philosopher.

The state of the psyche is determined by the activation of individual functional systems. It seems to us that the exclusion, change, flow of states is very similar to what I.P. Pavlov described as the induction of nervous processes. The state arises on the border of activated mental structures, defines and "fills" a certain space, and then initiates the activity of other systems and... moves into a new existence, a new state. And here already the state activates the systems, and this means that the state is what will happen, will be fulfilled.

States are an important component of the human psyche, and a somewhat mysterious component. On the one hand, it is impossible not to recognize even their presence or fundamental importance in human life. On the other hand, the scientific study of these phenomena is associated with a number of methodological and methodical difficulties, the basis of which is the psychological nature of the states themselves. It is a constant dynamic, a movement that, if it is artificially stopped, immediately turns into another flow. The researcher of mental states does not have much to explore. More precisely, there are only two of these possibilities: observation and self-report of the subject. This is certainly very little. Especially if you bear in mind the serious limitations of the specified methods.

Behavioral features are recorded in the observation. One or another of its changes may indicate the presence of certain conditions. And, therefore, the state itself acts as a hypothetical construct of the researcher. Its meaningful and dynamic characteristics are also nothing more than hypotheses. The inclusion of physiological and psychophysiological indicators in the field of research does not change

the essence of the matter, since the valid indicators remain the same facts of behavior or indicators of devices, and then hypothetical constructs work again. Even if we artificially induce this or that state, this, surprisingly, gives us little to understand the psychology of the process of its emergence and existence.

If we talk about self-observation and self-reporting, there are many more problems here. The very confidence that a person can always define and describe his state means that we equate state with experience. And this, in our opinion, is not justified. However, a person will always describe the experience of a state, and not the state itself, and therefore we will have a change in the subject of research. On the other hand, it is well known that it is possible to describe an experience only when it becomes an object of self-observation, and this will happen if a person "gets out" of it, stops feeling it. From here, from this point "outside" or "above" the experience, it will be seen completely differently than it really is, when it covers the whole personality, including the "I" system. It should also be taken into account that states always accompany the life of an individual (in other words, a person is always in a certain state), therefore, she will describe the "given" state quite objectively and dispassionately. Thus, here too we will have only hypotheses. This led to the fact that the current stage of research on mental states is the accumulation of empirical data and the construction of primary research hypotheses regarding the psychological nature of these mysterious phenomena. The problem of reliable psychological correlates remains very acute here, and below we will try to offer our perspective on this.

In domestic psychology, a serious, objective and systematic study of the mental states of the individual began after the publication of the great work of M.D. Levitov "On mental states of man" in 1964 [146]. It was actually the first (and so far the only) fundamental work in this field, and it was after its publication that the point of view was established in psychology, according to which the mental does not exist in two modifications (processes and properties), as it was imagined before, but in three – processes, states and properties.

A state is a certain internal characteristic of the human psyche, which is a relatively constant component of the mental process over time. This understanding is quite meaningless and, in any case, shows that the time parameter does not give much in the understanding of the

psychology of the state (it is clear that the logic of describing the states of physical systems is used mechanically here). M.D. Levitov defines mental states as follows: "...this is a holistic characteristic of mental activity for a certain period of time, which shows the peculiarity of the flow of mental processes depending on the objects and phenomena of reality that are reflected, the previous state and mental properties of the individual" [146, p. 18]. We see here the systematicity of the position. Levitov seeks to emphasize three fundamentally important things – the state is an all-encompassing mental phenomenon, one that colors all mental activity, and, on the other hand, it claims the role of a peculiar "carrier" of the mental (the search for such a "carrier" is a separate, very interesting section of domestic psychology : the fear of substantialism gave rise to opposition, and such authoritative scientists as L. I. Bozhovych and V. K. Vilyunas seriously discussed this problem, considering the "carrier" to be experiences). On the other hand, Levitov, in fact, says that the state is the central link of the interfunctional system. This is actively analyzed in modern literature and is, in our opinion, of fundamental importance. Finally, Levitov's opinion that the state is determined not only by the reflection, but also by the previous state (we would add – also by the future!) seems to be significant. Here are very ambitious "encroachments" on the study of the problems of dynamics and, most importantly, the development of states. It is also important in Levitov's definition that he actualizes the problem of the relationship in the "state-property" system. In general, one should pay tribute to the thoroughness of M.D. Levitov, his professionalism, depth of analysis and insight into the nature of the phenomenon, which is reflected both in the bright, deep and interesting text itself, and in the moments of discussion with S.L. Rubinstein (for example, when discussing the mood), in which the "victory" is not at all on the side of the latter. It remains unclear why such a talented and bright beginning did not become an active impetus for active and deep research into mental states. The analysis of the literature confirms that these studies, of course, were conducted and there were quite a lot of them, but they usually had a narrow-applied and empirical-descriptive character, while, in most cases, they did not tend towards conceptuality and generalization at all. This is precisely what explains the artificiality and uncertainty of the classification of mental states (problems of primary importance, if we keep in mind the formation of direction), which the authors of numerous attempts at this

classification themselves openly speak about [234]. Let's turn to M.D. Levitov again. Starting from attempts to build an individual typology (and he does this for a reason, because the state does not simply "cement" the interfunctional system, it closes it to individuality, and it may happen that it is here that one should look for its origins and essence), the author rightly says that, say, for such a trait as character, there can be no universal classification. According to Levitov: "In relation to mental states, the problem of classification, or typology, is as complicated as it is in relation to character. Too many different mental states, and moreover, in different respects. There are many such complex and contradictory mental states that it is difficult even to name them; they must be more or less carefully described" [146, p. 25]. And he, quite rightly at that time, refuses the "universal classification" of mental states, making "only" some generalizations. The analysis leads the author to the possibility of distinguishing "some subdivisions" of mental states, namely:

• *"conditions are personal and situational. In the first, above all, the individual properties of a person are expressed, in the second – the peculiarities of situations that often cause a person uncharacteristic reactions"* [146,with. 26]. Let's note an important thing here – the state expresses: in it, as in a drop, the whole world of the individual is expressed, you just have to learn to see it;

- *•states are deeper and more superficial, depending on the strength of their influence on human experiences and behavior. Passion as a mental state is much deeper than mood;*
- *•states that positively or negatively affect a person... Apathy can serve as an example of a negative state; inspiration – a state that positively affects human activity;*
- *•long-term and short-term states. Yes, moods can have a different duration: from a few minutes to a day or several days;*
- *•states more or less conscious. For example, absent-mindedness is often an unconscious mental state, determination is always conscious; fatigue can have different levels of awareness.*

M.D. Levitov also notes that there are pathological and borderline conditions that he does not consider, but considers it the task of special disciplines. However, if we add this group of conditions to those identified by the author, we still have to agree with him: it clearly "does not attract" classification, these are really separate subdivisions.

The most modern classification of mental states looks different. L.V. Kulikov notes: "all states have in common that they have temporal, emotional, activation, tonic, tensional parameters, containsituational and transsituative component. In different states, different parameters come to the fore" [234, p. 15]. This, according to the author, allows to divide states into long-term and short-term (by time parameter), as well as into emotional, activation, tonic and others, in accordance with which parameter is the leading one. The basis of the further division of emotional states is the modality of the corresponding emotion; activation states are divided by the level of motivation, completeness of inclusion in the situation; tonic states are divided on the basis of the level of general tone of the body, which, as L.V. Kulikov rightly believes, is in turn related to human health, finally tension states are determined by the degree of general tension of the body (mental and psychophysical). This classification seems quite logical, but it is as artificial as all the others. Thus, Kulikov reliably places joy on the positive pole of emotional states, although it should be placed on the positive poles of both activation, tonic, and tension states. On the other hand, what happens in pathological and extreme conditions is not taken into account here. To which, say, group should the conditions accompanying reactive psychosis, abulia or schizophrenic delusions be classified? In general, it seems that P. D. Levitov was right when he wrote about the impossibility of creating a classification of mental states. In any case, at the moment, this aspect of the problem seems somewhat untimely and unpromising, because without establishing the essential characteristics of the phenomenon, the classification will always be artificial (one should remember at least the problem of classification in biology in the 19th century: there, too, everything began with artificial and unsuccessful attempts, and valid classification as a reflection of the objective state of affairs became possible only after the theoretical generalizations of Ch. Darwin). However, on the other hand, this problem cannot be ignored if we want to stay within the boundaries of psychology and study mental states as reality, and not operate with abstractions – hypotheses.

A true understanding of the nature of mental states lies, in our opinion, not in the plane of states as such and systematization, but in the analysis of their dynamics, development and connections with other mental phenomena. It has already been mentioned that the mental state

is a concentrated and synthetic reflection of all the psychological characteristics of an individual. This opinion is shared by other experts. Thus, L.V. Kulikov observes: "In each state, one way or another reflects the spiritual, mental (psychic) and physical existence of a person" [234, p. 10]. As an extension of this thesis, it should be added that states reflect not just the specified phenomena, but their, so to speak, individual variant. And it is the condition that is a valid indicator of individuality. On the other hand, the mental state not only reflects – it, at the same time, forms mental phenomena. This should be understood in two senses: firstly, it is meant that states affect other mental phenomena, change, complete, and rebuild them. Thus, a thought, fantasy, or memory image can cause a certain state of the personality (in this case, the state reflects), but at the same time, it can change this thought or fantasy, give it a different color, give rise to a different meaning, ultimately, cause the appearance of a new thought. Secondly, the term "forming" can have another meaning – as giving form. What does the expression "condition forms opinion" mean in this sense? This means that the mental state, forming an interfunctional system on the basis of this thought, integrates it with the experience, properties, aspirations of a person, and only then the thought becomes mine, that is, the thought of this particular person – it acquires a unique form. It is clear that this applies not only to thought as such.

An analysis of the relationships between mental states and personality properties is thought to be productive. K.-G. Jung also noted: "If the condition somehow becomes chronic, then the consequence of this is the emergence of a type, that is, a habitual attitude in which one mechanism constantly dominates, although it cannot completely suppress the other, because it necessarily belongs to the mental activity of life" [321, p. 123]. Other researchers draw attention to the fact that a character trait can be considered as an embodied long-term state of personality. It is imagined that any feature (no matter what sphere of the psyche it refers to) is to one degree or another the embodiment of a person's habitual and long-term state. Of course, there is also a feedback here: character traits and personality traits largely determine what states and how exactly a person will experience. It makes sense to talk about a person's predisposition to certain states, about an individual's internal picture of the course of states, etc. The finding of this fact of the interaction of states and properties looks quite obvious, even banal, but

we should draw attention to the fact that we do not know the psychological mechanisms of this interaction at all. Hypothetically, we can say that the recognition of such a place and role of mental states can in a certain way expand and clarify our ideas about the mechanisms of forcing new personal structures: it becomes clear that this process is mediated by experienced states. Dynamic phenomena of the inner world of the individual and, above all, various types of intentions, as is known, tend to be embodied (objectified, says S.D. Maksimenko) in the goals, actions of the individual, and then in its properties. Now the picture is being clarified somewhat – they, these tendencies, are embodied, first of all, in a state, they give rise to it (although states themselves are also generated by previous states). The generated state, as the embodiment of personal intentions, forms an interfunctional system, and only after that, the "embodiment" continues along the indicated path. At the same time, the state controls the entire process, and the main thing is that the control is relevant to this individuality. This hypothesis needs to be verified, but it makes it possible to build a generalization about the nature of the state and its real place in the human psyche (after all, K.K. Platonov's remark that states occupy an intermediate position between processes and properties is useful only "geographically").

There is a serious problem of clarifying the spheres of mental reality, which are described by the categories "mental states" and "experiences". In the literature, you can find many variants of the joint use of these concepts, and therefore – different interpretations. Sometimes these concepts are used as synonyms, sometimes they are diluted in the logic of "experiencing this or that state", and sometimes in the logic of "state of experience". From the point of view of understanding the representation of these phenomena into the inner world of the individual, clarification of the sphere covered by one and the other concepts is considered important. It seems that the relationship between these phenomena is quite complex and ambiguous. The expression "experiencing a state" seems too simplistic, because it means that the experience is a state for the individual, that is, it represents the subjective parameters of the state. But experience, in fact, is not only a state, it specifically reflects and combines the whole picture of the inner world of the individual. We see that in this experience and states are very similar. Their real meaningful difference

can be understood if we separate ourselves from the usual logic of dividing the mental into processes and properties. It is necessary to realize that both "process" and "property" are only artificial constructs created for the convenience of researching the whole psyche. Analysis of states suggests that we do not just have another construct. We venture here to make a central hypothetical assumption. It is based on only two well-known methodological principles. First, the psyche is an inseparable and individually specific in each person (a person is the carrier of the psyche in the same way as the organism is the carrier of life) unity, which exists and functions exclusively as such a unity and in reality never and nowhere does its functioning resemble a mechanism consisting of different elements harmoniously combined with each other. You have to give yourself an account of the fact that, in reality, this is not happening. It was invented and imagined for a purely cognitive purpose – modern scientific knowledge necessarily involves the preliminary dismemberment of the existing (phenomenon) in order to "reach" the essential. There is a kind of logic that is completely foreign to the object of knowledge, and according to the laws of this external logic, we try to understand the object. This is a typical, understandable and completely incorrect way, since, in reality, one should not impose one's logic on the object, but allow the existence of its own logic and try to understand it. So far, this does not happen in psychology (as, in fact, in many other sciences). Hence the second starting position: scientific knowledge really, in its very essence, requires dismemberment of the object, but it should be carried out according to the own logic of this object itself. Psyche has never been and never will be a static entity. Therefore, its separation for the purpose of knowledge on the basis of "static" logic is artificial and does not correspond to its very nature (the permanent crisis of psychology, which has been talked about almost since the very beginning of its existence as a separate science, is an interesting evidence of the correctness of this idea) . It seems to us that the primary division of the psyche as an object of scientific research, which would correspond to the logic of this object itself, is the division into the form of its existence and the way of existence. The form of existence fixes the "look" of the object and its dynamics, movement. On the other hand, form represents (expresses) a way of existence. We can assume now, being within the limits of the outlined logic, that the form of existence of the human psyche is a mental state, and the way of its

existence is experience. So, mental state can be defined very briefly – it is a form of existence of the individual and unique psyche of a person. You can try to argue in advance. First, the state is total, not discrete, but fluid. Man is always in some state. It should always be understood literally – from birth to death and without any breaks. Of course, these are different states, and they replace each other, but they are always there, and they really shape the psyche, creating a slightly different configuration each time, but this personality is always guessed behind it, even with deep psychoses, this regularity is not violated. The totality of states is not only a temporal and surface-covering indicator. It is also, so to speak, a totality "in depth": the fact that thinking is a process is only an abstraction, but the fact that it means a state, and it is nuancedly different, depending on whether a person solves an educational problem or a daily one problem, creates a scientific theory or a work of art... well, the fact that the state is definitely presented here is clearly visible without any abstractions. It cannot be confused with other states, but, at the same time, it somehow "intertwines" into the system of states of a given personality and thereby creates a unique individual pattern. The depth of penetration of states is not limited only to the mental sphere. An inter-functional system integrated by one or another state necessarily "goes out" into the field of biology, and thus the state seems to "close" the space of existence of a human being. When, say, a person begins to get the flu, he develops a so-called pre-disease state. It covers literally all spheres of the personality: slowing down and some deformation of the action of cognitive processes, fading of interests and other intentions, asthenic emotions, and in addition – lethargy, fatigue – all this is well known to everyone, and we, as a rule, are not mistaken that we really start get sick. However, it is very interesting that this condition begins with ... the cellular level of the body, because it is this level that is affected by the virus. Every mental state is imagined to be so all-encompassing. creates a scientific theory or a work of art... well, the fact that the state is certainly represented here is clearly visible without any abstractions. It cannot be confused with other states, but, at the same time, it somehow "intertwines" into the system of states of a given personality and thereby creates a unique individual pattern. The depth of penetration of states is not limited only to the mental sphere. An inter-functional system integrated by one or another state necessarily "goes out" into the field of biology, and thus the state seems

to "close" the space of existence of a human being. When, say, a person starts to get the flu, he develops a so-called pre-disease state. It covers literally all spheres of the personality: slowing down and some deformation of the action of cognitive processes, fading of interests and other intentions, asthenic emotions, and in addition – lethargy, fatigue – all this is well known to everyone, and we, as a rule, are not mistaken that we really start get sick. However, it is very interesting that this condition begins with ... the cellular level of the body, because it is this level that is affected by the virus. Every mental state is imagined to be so all-encompassing. creates a scientific theory or a work of art... well, the fact that the state is certainly represented here is clearly visible without any abstractions. It cannot be confused with other states, but, at the same time, it somehow "intertwines" into the system of states of a given personality and thereby creates a unique individual pattern. The depth of penetration of states is not limited only to the mental sphere. An inter-functional system integrated by one or another state necessarily "goes out" into the field of biology, and thus the state seems to "close" the space of existence of a human being. When, say, a person begins to get the flu, he develops a so-called pre-disease state. It covers literally all areas of the personality: slowing down and some deformation of the action of cognitive processes, fading of interests and other intentions, asthenic emotions, and in addition – lethargy, fatigue – all this is well known to everyone, and we, as a rule, are not mistaken that we really start get sick. However, it is very interesting that this condition begins with ... the cellular level of the body, because it is this level that is affected by the virus. Every mental state is imagined to be so all-encompassing.

The mental state not only forms the "look" of the mental life of an individual, it also, in our opinion, shapes its dynamics. In this aspect, O.O. Prokhorov's hypothesis about the dynamics of the relationship between mental states and mental neoplasms of the personality is interesting. Considering the "energetic plane" of mental states, the author distinguishes two types of states based on the criterion of general activity of the individual – states of equilibrium and disequilibrium ("equilibrium" and "non-equilibrium" – in the Russian transcription). "States of relative equilibrium, states of average or optimal mental activity (which may include states of calm, empathy, concentration, mental adaptation, interest, and others) can be taken as a reference

point," writes O.O. Prokhorov. States associated with increased mental activity (joy, excitement, anxiety, etc.), as well as states of reduced mental activity (delusion, depression, fatigue, sadness, etc.), which are characterized by a higher or lower level of activity, respectively, will be attributed to states of disequilibrium" [233, p. 84]. States of imbalance arise when the symmetry in the triad is broken

A new functional system (state) is formed, which is characterized by a certain tension and uncomfortable experiences. Having a certain surplus of energy, the new (asymmetric?!) interfunctional system generates the intentions of the individual, causes peculiar actions and deeds, and, in the end, leads to the emergence of new neoplasms of the personality. Being a link in the process of the emergence of mental neoplasms is an important feature of this type of condition. O.O. Prokhorov notes: "An important function (perhaps the main one!) of states of disequilibrium is their conditioning of the process of the emergence of neoplasms in the structure of personal properties" [233, p. 86]. There is a specific mechanism of "the emergence of a new order due to fluctuation." The deeper and more acute the state of disequilibrium, the more active the process of formation of neoplasms is, and the more profound and essential structures the personality manifests. The subject's progressive resolution of a tense situation involves integrative processes of the individual and self-development. That is why, in this case, an activity is formed, which leads to the emergence of neoplasms (actually, as you can see, we are talking about the development of the personality). Thus, thanks to special activities and behavior, new structures are formed from the state. Speaking about the determinants of states of disequilibrium, Prokhorov draws attention to the meaning – "passion, significance of the situation, the selection of the most significant circumstance in it, the factor that introduces the most disorganizing element" [233, p. 89].

It seems to us that O.O. Prokhorov's idea of a solution – the embodiment of a special group of conditions in mental neoplasms – is quite interesting and promising. It seems that one of the central mental mechanisms is "captured" here, which not only unites the most important components of the psyche into a single meta-functional system, but also reveals the dynamics of development. The actual essential role of some mental states becomes clear.

Of course, all this requires serious study and clarification: what exactly are the conditions and why are the initiators and "implementers" of the formation of neoplasms; whether there are regularities in their appearance (in the author's presentation, rather than regularity, but randomness is apparent); what is the reverse effect of neoplasms on mental states – there are many such questions. The following should be noted separately. Even the preliminary involvement in the context of this idea of the processes of ontogenesis and pathogenesis allows us to say that the "birth" of states of disequilibrium in neoplasm (development) is not determined only by personal meaning. There are, of course, purely objective determinants; a natural change in the stages of age-related development, age-related crises, the occurrence and development of diseases, etc. 3 On the other hand, it is important to note that there should be a progressive and a regressive way of solving – the embodiment of states of disequilibrium. Of course, this is also related to neoplasms, but of a destructive nature. In this regard, it may be interesting to refer to L.S. Vygotsky's idea that neoplasms that arise at the stage of an age crisis have a rather mysterious fate. Vygotsky assumed that these neoplasms become de-actualized after the crisis passes, but do not disappear completely. Perhaps they play a special role in the development of further states and, accordingly, dynamic processes in general. In general, the age aspect seems to be the most interesting, since here we can deal with a complex of states of disequilibrium. For example, a teenager may experience a state of imbalance caused by an age crisis, in addition, he may be a somatically unhealthy child (this is another state of imbalance), and to this may be added a state caused by purely individual and personal problems (family relations, mutual relations with peers, etc.). What kind of symptoms will we face realistically? Will it be several states, or a complex, a new synthesis? Perhaps there will be compensation mechanisms? And in the end, which neoplasms will "solve" these conditions and what will be the way?

One way or another, the idea discussed here allows us to approach the problem of the dynamics of mental states productively.

Let's try to discuss the primary scheme of the transition of a state of imbalance into a mental neoplasm, using a very elementary example for convenience.

Let's imagine a student who cannot complete important educational tasks (the term is used in the traditional sense) due to overloading of the volume of mechanical memory. According to Prokhorov, there is a situation that is sufficient for the development of a state of disequilibrium, but, in fact, it can only be sufficient. Necessary additional conditions – task importance, intensity, duration, social significance, etc. Suppose all conditions are fulfilled, and a state of disequilibrium has arisen in this regard. We do not know how this happens, but it is clear that the condition initially arises within the old interfunctional system and, having arisen, destroys this system. So, obviously, it should be clarified that the state of disequilibrium does not exactly represent an interfunctional system, but means the desire to create a new one. Hence the tension. This can be called the emergence of energy dynamic potential. This moment is very important. The increased energy of the state of imbalance requires action from the individual. But what these actions will be depends not only on this subject. The progressive path that leads to the emergence of a neoplasm in this case is related to whether the social environment will give the child a means of mastering his memory (transforming it into a higher mental function). Let's imagine that such a tool is given (unfortunately, in the practice of teaching, this is more the exception than the rule). The child begins to use the remedy and finally solves his problems. The state of imbalance, however, does not disappear yet (it only softens), and the neoplasm does not yet appear. The new functional system is not yet available, there is only its "premonition". This is the second stage. Next, repetition and consolidation of the path of new memorization is required, for which the state of imbalance should be artificially activated, otherwise motivation will disappear. This, the third, stage is key. And only after its completion, after successful attempts to transfer the use of a new method of mnemonic activity to a large number of different tasks and situations, it will be possible to talk about the appearance of a neoplasm, a new interfunctional system and a change in the dominant state. This seems to be a scheme, but it is, after all, only a scheme, because we should not forget at least the fact that we are considering only one plane of human existence. At the same time, many other events and tensions are taking place in her life, other mental states arise and change, and this complex picture of the real life of an individual can greatly correct the presented idea.

In general, consideration of the problem of mental states in the context of dynamic of personality processes is considered very relevant and heuristic.

So, states are among the most essential and fundamental phenomena of the mental life of an individual, although, at the same time, they are the least studied. In any case, the analysis of the main theoretical concepts of personality psychology allows us to establish a rather remarkable fact – in theories, especially those based on psychological practice, mental states are given a lot of attention, but, at the same time, they are not studied specifically as a subject of research (state empathy and acceptance in K. Rogers, "peak experiences" in A. Maslow, "insight" in Gestalt theory, "individuation" in K. Jung, etc.). The focus of researchers' attention is always on other, "more significant" phenomena, and mental states are a kind of background against which everything happens. This "background" idea of states is dominant in modern psychology, which determined the specificity of the works devoted to the study of this phenomenon – on the one hand, these are purely descriptive, sketchy sketches, which, of course, are very interesting and important, but they do not say anything about the psychological the nature of states; on the other hand, a lot of research is devoted to classification problems, although the artificiality, convention, and randomness of these classifications are obvious: sometimes there is a feeling that a purely philological problem, not a psychological one, is being solved – the search for words that best correspond to certain nuances experienced by the subject became In this plane of analysis, questions, for example, about the relationship of such phenomena as mood, emotional tone, stress, etc. – resembles, rather, the well-known "game of beads" than a psychological study.

There are, however, theories of personality in which attempts are made to consider mental states in their actual role that they play in a person's life. Thus, F. Lersch considers her "dialogue with the surrounding world" and experiences as a reflection of the subject of this dialogue as a meaningful "unit" of personality analysis [151].

The "functional circle of experience", according to Lersham, contains four links of dynamic interdependent "mental processes" – "perception of the world and orientation in it", "needs, aspirations and desires as the second link of dialogue of a person with the world", "emotions become the third group of processes integrated into the

general process of mental life", and the last link is activity "as a response of a person in his dialogue with the world" [151, p. 95]. It is important for us that Lersch does not limit the world of the individual. He writes: "...this four-link cyclic process of mental life is embedded in what is not a process in itself, namely, in mood states, the color of which permeates all experiences. These are like stationary moods" [151, p. 96]. This aspect becomes the subject of attention when we ask how what happens in the form of experience and behavior between a person and the world becomes intrapersonal, that is, how it is dismembered in the person himself, in the unity of his personality. Thus, this component is assigned a central, integrating role in the existence of the individual ("dialogue with the world"). This is confirmed by the analysis of the "model of mental layers" built and discussed by F. Lersch: in it, "stationary moods" are considered as a key phenomenon [151]. These states exist "in the form of a sense of vitality and a sense of self, forming the background and the basis in which mental processes are constantly rooted" [151, p. 97]. The stability of stationary states does not deny the presence of their different modalities: yes, the state of vitality is stable and always exists, but it can take on different characteristics: anxiety, fear, cheerfulness, enthusiasm, inspiration, etc. In principle, the idea of F. Lersch is clear and, in our opinion, very close to the truth. Of course, he does not even consider a number of essential questions of the psychology of states (what does the interesting term "embeddedness" mean, whether there is (and what is) a relationship between "stationary moods" and "circles of experiences", how these states themselves arise, etc. .). However, important steps have been taken – states have been introduced into the personality structure, and, in a key position, they are recognized not only as the background, but also as the basis of life processes occurring in the human psyche. The very psychological nature of states cannot be understood without studying their origin and development. This is the original, basic idea of genetic psychology, and it is within its framework that we attempt to study the mental states of a person (it is interesting that this idea almost literally coincides with the main thesis of existential psychology: since personality is, in fact, the being (becoming) of a person in the world, then it is possible to understand it only by studying this process of becoming. A.O. Prokhorov's definition of the state as a "functional system" is not entirely successful time is its state. The existence of the individual really represents his constant "dialogue

with the world", and we assume that the state arises precisely in this interaction.) and, at the same time, their mobility and changeability are determined by the general specificity of a person's connection with the world.that this specificity is most adequately reflected by the concept of "connectivity" (the term was first introduced into psychology by H.S. Kostyuk to characterize the relationship between learning and development). Connectivity is a tense unity of independent, self-sufficient, each capable of self-development units ("man" and "world"), which can exist only together, but never merge, do not become one. This coexistence, if we use the terminology of Gestalt therapy, is a complex, moving, but also inextricably strong contact, but never a fusion. Contradictions and conflicts of the combination are due to its very nature – each of the united units develops and exists according to its own internal laws, but at the same time, on the other hand, it must necessarily reflect, ... take into account the laws of the other. In addition, these internal laws themselves arise and change under the action of another unit as well. This, in our opinion, is the existence of a person in the world (S. L. Rubinstein noticed this in his time, saying that a person not only opposes the world, but is also inside it) [253]. We would be inaccurate if we said that a mental state arises in a person in response to interaction with the world connected to him, because if we understand the interaction as a discrete act (which is how it really is), then the state not only arises, but also precedes the interaction, since the individual is always in some state. Searching for an answer to the sacramental question "what was before"? has long since discredited himself, therefore we will consider the situation in such a way that the act of interaction of a person with the world connecting him causes the appearance of a state (at least, changes in the existing state). This is the central thesis, and we will try to reveal it further. First of all, about the meaning that is included here in the term "world". The point of view of existential psychology is appropriate, according to which a person exists in three mutually intersecting worlds (three forms of the world). The first of them, Umwelt, the natural world is the world of surrounding living and non-living nature, as well as the world of its needs, drives, and instincts. R. May correctly assumes that this is the world in which a person would continue to exist if he were not aware of himself. "This is the world of natural laws and natural cycles of sleep and vigilance, birth and death, desire and peace, the world of biological determinism, the

"world of the abandoned", to which each of us must somehow adapt" [187, p. 167].but at the same time, on the other hand, it must necessarily reflect, ... take into account the laws of another. In addition, these internal laws themselves arise and change under the action of another unit as well. This, in our opinion, is the existence of a person in the world (S. L. Rubinstein noticed this in his time, saying that a person not only opposes the world, but is also inside it) [253]. We would be inaccurate if we said that a mental state arises in a person in response to interaction with the world connected to him, because if we understand the interaction as a discrete act (which is how it really is), then the state not only arises, but also precedes the interaction, since the individual is always in some state. Searching for an answer to the sacramental question "what was before"? has long since discredited himself, therefore we will consider the situation in such a way that the act of interaction of a person with the world connecting him causes the appearance of a state (at least, changes in the existing state). This is the central thesis, and we will try to reveal it further. First of all, about the meaning that is included here in the term "world". The point of view of existential psychology is relevant, according to which a person exists in three mutually intersecting worlds (three forms of the world). The first of them, Umwelt, the natural world is the world of surrounding living and non-living nature, as well as the world of its needs, drives, and instincts. R. May correctly assumes that this is the world in which a person would continue to exist if he were not aware of himself. "This is the world of natural laws and natural cycles of sleep and vigilance, birth and death, desire and peace, the world of biological determinism, the "world of the abandoned", to which each of us must somehow adapt" [187, p. 167].but at the same time, on the other hand, it must necessarily reflect, ... take into account the laws of another. In addition, these internal laws themselves arise and change under the action of another unit as well. This, in our opinion, is the existence of a person in the world (S. L. Rubinstein noticed this in his time, saying that a person not only opposes the world, but is also inside it) [253]. We would be inaccurate if we said that a mental state arises in a person in response to interaction with the world connected to him, because if we understand the interaction as a discrete act (which is how it really is), then the state not only arises, but also precedes the interaction, since the individual is always in some state. Searching for an answer to the sacramental

question "what was before"? has long since discredited himself, therefore we will consider the situation in such a way that the act of interaction of a person with the world connecting him causes the appearance of a state (at least, changes in the existing state). This is the central thesis, and we will try to reveal it further. First of all, about the meaning that is included here in the term "world". The point of view of existential psychology is relevant, according to which a person exists in three mutually intersecting worlds (three forms of the world). The first of them, Umwelt, the natural world is the world of surrounding living and non-living nature, as well as the world of its needs, drives, and instincts. R. May correctly assumes that this is the world in which a person would continue to exist if he were not aware of himself. "This is the world of natural laws and natural cycles of sleep and vigilance, birth and death, desire and peace, the world of biological determinism, the "world of the abandoned", to which each of us must somehow adapt" [187, p. 167].in which man would continue to exist if he were not aware of himself. "This is the world of natural laws and natural cycles of sleep and vigilance, birth and death, desire and peace, the world of biological determinism, the "world of the abandoned", to which each of us must somehow adapt" [187, p. 167].in which man would continue to exist if he were not aware of himself. "This is the world of natural laws and natural cycles of sleep and vigilance, birth and death, desire and peace, the world of biological determinism, the "world of the abandoned", to which each of us must somehow adapt" [187, p. 167].

Second the world of man – Mitwelt – the world of relationships with people. The third – Eigenwelt – the inner world of a person as an individual, which, in fact, is as real as the first two. Human life is connected with these three forms of the world. The condition occurs when a person meets one of them. We mean that the emergence of the condition requires the interruption of the usual duration of life activity by some discrete act, the main feature of which is its special penetrating character in relation to the individual. Indeed, what combines such different events as a disease of an internal organ, an infection, a vivid disturbing dream, an important event in life, the appearance of a new bright idea (image), a meeting with a significant person, the end (beginning) of an activity, etc. It seems to us that the unifying factor here is precisely the nature of the influence penetrating the inner world (and the activity can come from the subject himself or from "one of the

worlds"). Such a discrete penetrating act (which has a pronounced nature of an event) marks a temporary change in a person's position in the world, and exacerbates the contradictory tension of the connection. A physical system as a result of such an event rarely changes structurally, up to the point of destruction. A person is given the opportunity to preserve the structural integrity and value unity of the self, but this is achieved through a change in the reflection of the world. The condition appears here as an all-encompassing dynamic neoplasm, which: a) affects cognitive structures and ensures the balance of their activity, when the world is indeed reflected a little differently for a while, but, on the other hand, experience is preserved, which allows a person to be, as a whole, adequate. Of course, up to certain limits (the difference between borderline and psychotic states); b) allows you to really change the activity, while at the same time keeping the personality in balance with all three "worlds" and with itself. The main thing we see is the following: the state that arose as a result of a "penetrating" action allows us to transfer the situation of influence (it doesn't matter whether a person on the world or the world on a person) into a situation of interaction (dialogue) with the world. This achieves the most important thing – a person continues to exist as a complete individual. On the other hand, we can talk about a specific signaling function, when the states that have arisen seem to "tell" the individual and the environment that further interaction is impossible, which means that there is a real threat to the integrity or personality, even to a person's life.

In general, the situation of the occurrence of a mental state can be presented in the following way.

At some point in time, the lithic lifespan is interrupted by a discrete "penetrating" act of impact. The reflection of this act gives rise to the experience of the individual, which is realized. The latter is fundamental, because it is the awareness of the experience that must, obviously, determine whether the mechanism for the emergence of a new state is "triggered". If the intensity of the experience will be such that a person will not be able to continue interacting with the world in the current state, a new state will arise that will slightly change the situation of the inner world, without destroying it, and will allow building a new interaction. In this scheme, the relationship between experience and state seems to us to be the most significant and complex.

As already mentioned, the experimental study of human mental states is a rather complex research problem. A number of authoritative researchers, in particular M.D. Levitov, noted that obtaining reliable empirical data on the content and dynamics of mental states is extremely difficult due to the impossibility of establishing clear psychological correlates of this phenomenon. Levitov rightly points out that changes in an individual's behavior that can be observed in observation, deviations of objective indicators of some psychophysiological parameters are indicators of the presence of a certain condition, but they, in fact, say very little about the psychology of this phenomenon. The use of self-reports of the subjects is also problematic. The fact is that self-report destroys experience as a subjective derivative of the state. The desire to express, to verbalize the experience of a certain state, rationalizes the experience itself, destroying its emotional component. In reality, a person declares his understanding of what he thinks he experienced. This phenomenon, by the way, is very well described in fiction. In particular, Konstantin Levin (the hero of "Anna Karenina" by L. Tolstoy) feels the beauty of nature very deeply, but it is unbearable for him to talk about it, and he does not like it when others talk about it. Verbalization (rationalization) destroys his experiences, making them unpleasant, rude, "distorted." Methodological obstacles seem insurmountable, if we take into account the provisions of M.M. Bakhtin that the statement does not so much express the experience of a certain state as forms it. It would be more accurate to say that it reforms and modifies it, so the reporting subject finds himself in a state of creating a completely new experience, and it is clear that his explanation cannot be taken as serious data. In this regard, it does not make sense to rely on introspection, when the task of self-observation of one's condition refers to its occurrence. In reality, with this task, we alienate a person from his own state, which in itself is an artifact, since the essential psychological characteristic of the state is precisely that it is the state of the individual, that is, she herself at this time, so we are not talking about any separation maybe even theoretically.

These difficulties lead to the fact that everything we know today about mental states is purely descriptive information at the everyday level (of course, this cannot be considered phenomenology in any way). Although, one should pay tribute to the talent of great clinicians, whose

descriptions are not only literary and perfect, but also very accurate and heuristic. However, they still cannot resolve the disclosure of the psychological essence (structure and dynamics) of mental states.

In his central work M.D. Levitov noted that it is appropriate to use the method of analyzing the products of activity to study some states of the personality. It seems to us that the state of creativity is precisely the one for which this method can be adequate. However, its application requires the creation of a conceptual paradigm that cannot be similar to the traditional one at all. Let's try to explain this idea. We should start from what we know for sure: the act of creativity. Undoubtedly, it is connected with a special mental state of the individual. It is called "elevation", "inspiration", etc., but it seems to us that there is no need for such names, because creativity as a manifestation of the essence is a completely peculiar state, unlike any other. The specificity of the creative act is that it involves a free and self-motivated manifestation of the personality, and this certainly means that the product of creative activity somehow reflects the inner world of a person (the principle of objectification established by S.D. Maksimenko). The result of such an expression – embodiment is always a symbol, "given with the help of some image," notes O.F. Losev, – or without him, and he is always somewhat decorated and organized. It always contains some idea, which turns out to be the law of its entire construction." According to the latest data, the symbol formed as a result of an act of creativity represents a complex integrity of image and experience. Thus, there should be a fundamental possibility of "decoding" the products of a creative act, in the sense that we can get information from them about the inner world of the subject of creativity, and, in particular, his mental state at the time of creativity. But this one possibility, let's emphasize this, exists, really, only in principle, since all this cannot be done within the limits of the traditional approach to the study of personality psychology.

Speaking about the traditional approach, we mean the methodological scheme according to which the researcher can supposedly obtain valid scientific and reliable knowledge about the psychology of the individual, separating from a living real person and working in the space of abstractions. The result of such knowledge, of course, will be only a logical scheme, in which there will be no individual nuance, complexity, there will be no life. If such an approach can be

justified for some tasks, then it is absolutely not suitable for studying the peculiarities of the mental state, because the state is always a purely individual and living pattern, and its schematization means the destruction of the very subject of research. Is, say, an artist's work an imprint-embodiment of his inner world? Yes, definitely. But can we "decipher" this world if we completely abstract from the life of the artist as a person? This sounds like nonsense. We can indeed try to reconstruct very strong, vividly morbid states, for example, Van Gogh, from his paintings, but only if we know his life and his personality. Therefore, the task of studying the peculiarities of the mental state of creativity by the products of activity can be performed only in the context of the life of the subject. But this is only one side of the problem. Another, no less important, is the special position of the researcher himself. A person who scientifically studies the world "is in special important relations with the studied objects, and he must make himself a part of his problem. This means that the subject can never be separated from the object he observes" [187]. Rollo May further notes that such a formulation of the question reveals the fallacy of thinking that truth can be understood only in the logic and terms of external objects. Wide possibilities of internal subjective reality are opened and it turns out that such reality can be true, even if it contradicts objective facts [187]. The question is what's going on-whether something is objective or not is decided here on a completely different level – the so-called objective truth enters into a complex and contradictory relationship with the subjective truth, the truth of the inner world of the individual. This, as we can see, is directly related to the psychology of the creative act: yes, it usually experiences something that was not objective, but the experience itself and the state that "envelops" it are the truth for the personality of the creator. And we cannot treat this as an illusion, but only as a reality, the reality of the inner world. Such a change of position is fundamental. It forces one to "forget" about abstract objectification, and, on the contrary, gives rise to a dialogical intention of the researcher – there is a desire to ask questions, to talk with this specific individual who is experiencing this objectively impossible state.

From the position held here, we must unequivocally accept that a work of art is the embodiment of truth – that is, the mental state experienced by the author at the time of creation. Why, then, do we so

desperately want to believe that this is exactly how we experienced this moment? How is this effect achieved? This cannot be answered only from the point of view of literary studies, we must know at least a little about the author – a person. The existential problem of becoming, the separation of the self-instance in the inner world are the things that the author experiences quite painfully. It is they who are embodied in the image-experience.

One of the central concepts in existential psychology is the concept "I am an experience." This is a very complex personal formation, which means that the quintessence of existence is the "power to be": "being is related to the future and is inseparable from becoming." This is the experience of existence realized in self-awareness. R. May specifically notes that "I am an experience" is not formed automatically – a person must go through serious trials of life and truly decide to be: "My meaning of being is not my ability to see the surrounding world, measure it, evaluate reality. It is my ability to see myself as a being in this world, to know myself as a being who can do all this" [186]. And further, even more precisely and vividly: "Being means not 'I am a subject', and 'I am a being', which can recognize itself among other beings as a subject of what is happening" [186].

It can be argued that "I am experiencing" is what constitutes the state of creativity. Not fascination (absorption) with the topic, not the desire to realize the idea is the main thing here: creativity in reality gives a person the opportunity to feel the reality of his own self, his existence and formation. This is such an exciting and strong experience (A. Maslow called it "peak" or "borderline") that a person wants to feel it again and again: this is the true beauty of the creative state, and this is its problematic for the individual. After all, "I am an experience" means a meeting with one's real self, one's own essence ("Meeting" here is understood in the interpretation of M. Buber). However, Buber himself noted that the Meeting cannot continue for too long, it ... passes. And that's when, it seems, what can be called the post-state of creativity – human exhaustion. And it is necessary to live again, to go to a new meeting, to a new "I am experiencing". Considering the author's creations from this angle, we can make an assumption – the image created by the author is not an actualization of some unconscious experience, it is, in fact, not an image of a real event: the author embodies his own experience of the state of birth of himself as an I-

existing, I-sub of the object In general, we note that this reflection of the movement towards the real, existing Self is very characteristic of modern authors.

A kind of mechanism, thanks to the action of which the state of creativity allows the subject to feel "I am experiencing" is a way out of situationality, mundaneness, beyond the limits of one's own current desires and impressions. This mechanism is called "transcendence", instead of splitting existence into a subject (man, personality) and an object (thing, environment), – notes L. Binswanger, – now we have a unity of existence and "world", which is provided by transcendence" [32]. The latter is considered as an essential characteristic of human existence. "This ability," notes R. May, "is already established in the term 'to exist', i.e. 'to stand out from.' Existence implies continuous emergence, transcendence from the past into the present and the future [187]. Transcendence means not only "going beyond" some limits, but also the experiences associated with it, and that is why "any true description of human beings requires taking into account experiences" [187].

Self-transcendence implies that a person must question existence in general and his own existence in particular. This doubt can become very acute, painful and conflictual in some states. In particular, we mean the state of creativity as "pure" transcendence. The movement of the individual in the state of "I am experiencing" can be quite complex, even illusory, but it is always the movement of the existence of one's own existing self.

We see in many works a difficult, if not catastrophic, painful solution by man to the problem of existence (existence – non-existence). We feel the self-dynamic changes in the state of creativity, we feel how the author very carefully but clearly touches values, passes between them and dark, unformed desires. And it comes to the light of existence and being.

Finally, we should note that the state of creativity, as self-transcendence, as "staying" in the state of "I am experiencing" implies not only an encounter with the existing I, but also its constant strengthening, retention and detachment from what this I is not. there are. So, this state is one in which self-awareness functions acutely. "Self-awareness presupposes self-transcendence ... Awareness of oneself as existing in the world presupposes the ability to withdraw, look at

oneself and at the situation, evaluate them, and then stimulate oneself with an infinite variety of possibilities" [187]. The creator experiences this very painfully, sometimes tragically, because he perceives the situation as a splitting of the "I".

We can see that the collisions of relationships with the "I-truly existing" are very acute. The form of reflection is very different, from frank and clear, to complex imagery, reincarnation, as if blurring and a completely new synthesis, but the essence is always the same – the existing I "fights" as an active and independent substance, seeks preservation, integrity, existence.

And this is, of course, another central point in the state of creativity. The artist, by his very condition, creates such an inner true, real situation, when in diversity he can "choose among many types of relations between the world and "I". "I" is the ability to see oneself in the diversity of these possibilities" [187].

And this is real freedom in relation to the world. Freedom, the openness of the world, the creation of many opportunities for existence and free choice, solving the existential problems of existence – these are the characteristics of the creative state of the individual. We see that our idea of personality and its existence, the researcher's position in the analysis, really allows us to reproduce the dynamics of a person's state of mind based on the products of his creative activity.

In conclusion, there is one more important thesis, the thorough disclosure of which requires special work. It is about the fact that in psychology there is an opinion that states of creativity are very close in nature to borderline and painful mental states.

From what is stated here, the fundamental difference is very clearly visible: the state of creativity is self-transcendence through the creation of different worlds, openness to them and free choice of them; a sign of a mental disorder is limitation to one single world, fixation on it. In pathological conditions, L. Binswanger notes, the "freedom that allows the world" to be is replaced by the unfreedom of oppression with the help of one or another "world project" [32, p. 312] ...

Biopsychic substructure

At one time, K. G. Jung spoke quite vividly about the fact that we simply cannot really understand and express the unity of the biological and mental in human existence. He believed that this issue is not

psychological, but philosophical, and therefore, at the level of positive science, it should simply be accepted and worked with. In this paper, quite a lot has already been said about the problem of the interaction of the biological and the social, but in reality it is more important to single out a slightly different aspect – the trend, the functional-dynamic phenomenon of the coexistence of the biological and the mental.

Traditionally, mental is understood as a set of mental phenomena that are known to everyone. Biological is what concerns the life of the organism, the life of the body, its functions, structure. But we don't really have a separate existence of both, they just connect in different ways at different stages of ontogenesis. The relationship between the biological and the mental in an individual always changes its configuration, changes its meaning: it is one thing when it comes to this relationship at very deep levels, in the existence of root drives, organismic needs, and quite another when a combination of the biological and the mental is taken, for example, in activity. They are certainly combined here as well, but combined in a different way. If at a deep level it is a bio-psychic tense unity, the parts of which cannot exist without each other, then at a more superficial level we can talk about a different nature of interaction.

Some studies have shown that the ratio of biological and mental changes in a person in the process of ontogenesis. It was already mentioned that O.R. Luria [158] showed that it is not constant. O.R. Luria's point of view is, unfortunately, very little used in modern psychology. Traditionally, it is believed that at the earlier stages of ontogenesis, the biological component prevails in a child's activity and activity, and at later stages, social factors become predominant. O.R. Luria, who conducted research on the thinking and memory of children and adults, showed the opposite picture, and it is proven by empirical facts and, in principle, does not cause any doubts. At the initial stages of ontogenesis, the processes of thinking and memory are precisely the most socialized, they depend as much as possible on the conditions of upbringing and the activity in which the child is actually taught to think and remember. These processes only gradually begin to acquire an individually unique nature, and it is mainly hereditary and genetic factors that are revealed in it. If we follow Luria's logic, the individual arises from the fact that the biological, hereditary takes up more and more space in the activity of one or another process. It seems that this can be extended to everyone's processes, although this will only be an

assumption, because no other empirical studies in this direction have been conducted. It remains unclear why, at the first stages of ontogenesis, the biological, hereditary seems to be suppressed by the social experience that actively captures a person, and how it is released in the future, how the social enters into new relationships with the biological. These mechanisms, processes and phenomena require empirical research, but it seems to us that in the context of this problem, it is necessary to pay attention to it.

The peculiarities of the interaction of the biological and the mental within the substructure of the personality are that its "echoes", consequences are reflected in the whole personality in general, and any phenomenon, any feature contains this relationship as a manifestation of their unity. A concrete manifestation is, for example, the phenomenon of psychosomatics, which nowadays attracts the greatest attention of practitioners. Those who are engaged in applied research, practical psychology, medical psychology, discover a lot of mechanisms unknown so far in relation to the development of the personality as a whole. Medicine now knows the facts that, according to statistics, up to 80% of stomach ulcers have a psychogenic nature, there are also many other facts. But again, we do not know the mechanisms: what mentally affects the work of somatic organs, and we can cite many facts when there is also a reverse effect: the somatic state, the state of the organ system affects the psychological functioning of the individual as a whole. It is clear that such things are a serious confirmation of the real unity of the human being. But, on the other hand, they require the deployment of scientific and psychological research. After all, apart from statistics and purely everyday observations, there is currently no other knowledge about the actual mechanisms of such phenomena. Vygotsky should be mentioned again, who set a task for psychology: not to theorize at the level of these life facts, which are obvious, but to obtain scientific facts and start from them in order to learn the real psychology of the phenomenon. Therefore, it is impossible to give any meaningful characteristics of psychosomatics in this work, because of that this phenomenon requires serious empirical research, which is practically absent, as well as in medical psychology. In particular, in the section devoted to ontogenesis, we talk about love and note that the field of psychosomatics does not investigate how the mental states and mental characteristics of parents affect the production of germ cells and,

therefore, the further growth and development of a developing child. But this does not mean that this influence does not exist, but that research in this direction is not conducted. Even at the surface, statistical level, we do not have such studies, although they are not so difficult to carry out.

Within the framework of the analysis of this substructure, the very interesting theory of leading trends by L.M. Sobchik [264] attracts attention. It highlights temperamental properties in a person, which in their purest form embody a real combination of biological and mental. Each property of temperament is like a "seed": it is very clearly and clearly visible "what is from biology and what is from psychology." L.M. Sobchik emphasizes that these are not properties, but tendencies, that is, they have an energy-dynamic nature, develop, and, as they develop, are oriented and form stable personality qualities in the field of behavior. The author continues this logic to characterological traits, to communication and communication of an individual in society, showing that the manifestation of tendencies, their grouping provides completely different behavioral styles. Temperament, as a seed, as a biological and mental cell, is not only considered by L.M. Sobchik. This is perhaps the most ancient and traditional research. In domestic psychophysiology, we can name B.M. Teplov, Nebylitsyn and their school. These are the temperament theories of Kretschmer and Sheldon, who, however, considered unity at the constitutional level. And there are a lot of works in the field of brain physiology, and all of them have an "exit" precisely in dynamics, that is, in temperament. We mentioned L.M. Sobchik because, in our opinion, she takes a step forward, talking about trends, about the fact that they further penetrate the entire personality and its top levels, such as values, orientation, character, experience. Trends determine the individual style of activity and behavior. Thus, at the moment there is sufficient empirical material in traditional psychology to talk about the existence of a certain theory of the biopsychic unity of a person.

Somewhat separately within this substructure there is a problem of corporeality. Traditionally, in modern psychology, when analyzing the biological and mental in a person, they talk about the nervous system, with the possible exception of the names mentioned above: Kretschmer and Sheldon, who analyze the bodily. And it seems to us that the works of, for example, the Freudian Reich, the works of Kretschmer, O.M.

Sikorsky in the field of physiognomy, and the philosophical justifications to which O.F. Losev and many other scientists have devoted their attention should return to psychology, since personality represents itself is not only a set of immaterial mental structures. We talk about a person, meaning necessarily a whole person, and a person without a body does not exist at all: without a face, without a body structure. And it's not just about the impact of body features on personality or psyche, it's about unity. In recent studies by O. T. Sokolova [265], it is clearly shown that the image of the bodily self, the image of the body, and the body itself are very important psychological components and at the same time the cause of numerous deviations in the behavior of adolescents and adults, the development of various complexes. That is, psychology is gradually returning to considering the body not as a carrier of the psyche, a carrier of the ideal, but as a constituent component, simply a necessary constituent part of the personality as a whole. The fact is that logic tells us: everything that is physical in a person is also mental at the same time. Of course, it should be noted here that the most important is the theoretical construction of M.O. Bernshtein [29]: his "psychology of living movement" testified to this really real unity of the physical and mental; these are two names of the same thing. Any movement, the most elementary, the most primitive manifestation of articulation or movement in space is necessarily a mental phenomenon as much as a physical one. And the structure of the body, the features of the body are very early included in the thesaurus of the personality. The child gets to know his body very early, his self-image, self-awareness is absolutely not separates bodies. That is, everything bodily is mental. And here we agree with Maslow in that a person does not have an exclusively and purely natural body as such. The body defines the image of "I" in the same way as the spirit defines it. That is, physicality is a structural component of the personality, and as such, must necessarily be part of the psychology of the personality, because we cannot imagine the personality as "Professor Dowell's head". O. M. Leontiev spoke about this at one time, and he, by the way, did not belong to the scientists of the physiological direction. He belonged to that direction of psychology and philosophy in domestic science, which was, on the one hand, frightened by the politicized pressure of Pavlovian teaching, and on the other hand, he himself was aggressively opposed to it, and therefore he cannot be accused of

physiologism in any way. But his reflections on the physiological and biological, physiological and mental show that this is the original unity [149].

E.V. Ilyenkov rightly writes that we cannot look for a mental process in the structure and physiology of the brain, as this leads back to the idea of a "homunculus", which, of course, we will not find there, but this is an extreme and polemically sharpened point of view. For a long time, the physiology of the nervous system, physiology in general, has not been talked about in such terms as if one really needs to look for some mysterious process or mental substance. This, we repeat, is an extreme point of view. We are talking about something completely different: when talking about a person, we cannot separate it from its body, as the fiction writer Belyaev separated Professor Dowell's head. And this means that everything corporeal is permeated by the psyche, the human mind, which is symbolic, and therefore it passes through all consciousness. I would like to draw attention to this.

And, finally, when analyzing the biopsychic substructure, we should not bypass the traditional, ancient opinion of U. Stern [308] about convergence. U. Stern did a lot for personality psychology, he is the most outstanding personologist, and the science of personology began with him. Considering the central problem of the biological and psychological and their relationship, which was traditionally presented as an opposition, Stern first put forward the idea convergence, i.e. combination. It is implied that the biological and mental in a person function together: these are two processes that coexist, that work for each other. They are relatively independent and, conversing, uniting, and actually create what is called a personality. In principle, you can agree with this point of view, if you disregard our original idea that the psychological in the individual is actually a vector that arises at the junction of the biological and the social. And this is what we would like to emphasize here. When considering the biopsychic substructure, one should not forget our original logic regarding the ontogenesis of the personality. We understand the emergence of the individual as a whole carrier of the human psyche, as the result of a lifelong, very ancient combination of biological processes and social processes. The psyche itself is, in our opinion, the resulting force, the resulting vector of the union of these two wings, and in this sense, if we bear in mind our ideas about ontogenesis and about need as an energy-informational force,

thanks to which all living things exist on Earth, the concept of the biopsychic in general should be removed, because everything biological in the individual is humanized, it is not purely biological, it is also social at the same time. On the other hand, everything we know about personality is definitely social: it is mutual relations, a person's activities, his relationships, his ideas. All this is due to the fact that there is not a brain, but the body as a whole. Therefore, we imagine this structure as the initial, root, mental one.

EXPERIENCE

We consider the substructure of experience separately from the cognitive sphere, which is not traditional. We do not consider it only a certain amount of information that is stored somewhere in the inner world of a person and which is then used in some way. For us, experience is fundamentally different. Experience is a certain state of the system, which has not only energy, not only structural, but also informational nature. Everything that happens to a person, regardless of his desire, is perceived by the system of human experience. Information coming from the surrounding and internal biological is dynamic. It does not constitute, in our opinion, any reservoirs. This idea is vividly illustrated in Rogers' metaphorical expression: "Memory is not a bucket of water from which we can take something or another with a mug." In our opinion, only one thing is clear – we are dealing with a continuous flow of information (flow of needs), which is information-energy in nature and passes through man as a being, and passed through many beings before that, and will pass again through many others. This flow cannot slow down anywhere, and cannot accumulate. It is not necessary to imagine that there are some "capacitors" on the path of this flow that accumulate this information, and then we can use it. This is not so.

There is a single dynamic energy and information system, due to the fact that it has accumulated experience of past existence. Take away this experience – in whatever form it may be – and we will not have this system, it will disappear as alive and existing. Here another question arises: how is the information moving in this flow used. When the world doubles, thanks to the appearance of symbols, thanks to the appearance of consciousness, then transcendence arises as the system's ability to deal with itself, the ability to take what I need from this flow. Mechanisms of regulation are being formed that "grab" from the flow of

information what a person needs at the moment. This, in fact, is the whole mechanism. A person does not accumulate, but takes this information. Exhaustion is a very good term of Spinoza's. Information is updated due to what is exhausted at this particular moment. This is a general view.

There is another point. In addition to the experience that exists for generations, during the long life of humanity, each person can supplement this information flow with the data that comes to him during his individual life. This mechanism is related to the property of the "carrier" itself. When textbooks say that the phenomenon of memory is connected with the fact that the psyche is plastic, and you can imagine that you can leave a mark on it, like, say, a bare foot on the sand, everyone likes this image. In fact, it is incorrect example. The only thing that can be said is that you have to imagine the movement of sand, which occurs at the speed of light, imagine that what is reflected on it is absolutely immaterial; and it is always the same system, only it changes every time. There is something like a vortex (if we compare it with physics) due to the contact of the system with the surrounding world, or due to its attention to itself at this particular moment. It seems that a certain nodule appears, and this is actualized memory. Thanks to this doubling, a person can turn to this knot and actualize it, and use it. Thus, the actualization of individual experience occurs according to the same mechanism. And experience is not only knowledge. It should be noted that knowledge as such, information as such, is never stored in a pure form, so to speak. Anyone who can say that he remembered something without the context of the situation in which it happened, without the actions that took place at the time, without the goal that was set at that time, will tell an absolute lie. That never happens. Information is never stored in a "pure" form, due to the fact that it is picked up, enters this flow in the form in which life exists. And from this it begins to become clear that not only information as a discourse can be stored, indeed. The stored material is the skills, abilities of a person, his behavior systems, ways of his reactions to certain events, as well as ways of others' reactions to him, ways of behavior in certain situations, certain systems, the sequence of this behavior. What do we mean when we say, for example, that this is an experienced specialist? Ask any specialist what is his experience? He will never reveal it to you, because it is a quantum, it is a combination of all information. It is completely open and

"understood" for the "personality" system, and is absolutely not perceived in a verbalized, expanded form. And if it will be fully verbalized, then this will be different information. Try to ask the master how he processes the crystal, is it only he who gets it that way? He will tell you what dimensions he uses, what tools he uses. But it won't get you anything. Something most important disappears – the unity of integrity, which is always in motion.

The bearer of experience is a person in the flow of information. This information is complex, integral and stored in this stream in the form of motor, exclusively motor. She cannot be at rest there at all, she cannot stop even for a moment. The same question arises again – what is memory? Is it still a reservoir from which we will take something, or is it a stream? She is both that and that. And again we need our principle of complementarity, because again we cannot understand what is in front of us. Everything depends on the perspective and point of view of the researcher. If he needs to explain to the student what preservation is as a memory process, it is more appropriate to imagine the experience as a stable system. Then there is an explanation like "this is a bucket of water." If it is necessary to explain to him what the process of memorization means, and what caused Adler's attention to early childhood memories, it is necessary to go to the so-called "wave" theory, and explain it as a constant endless movement. We need, I repeat, our principle of complementarity, because in experience we see the same thing that physicists saw in the electron. It is both a flow and a structure. And here, as nowhere else, this process is visible. It was not for nothing that A. Einstein turned to psychology in his time: he had a very serious correspondence with Jean Piaget (more meaningful than with physicists), the most interesting psychologist of that time, because there is really a lot of very mysterious things here. And indeed, the psyche in many respects has the same problems that are studied at the level of the microcosm.

It should be said about the connection of experience with other structures. The experience is the experience of the whole personality. The original carrier of information includes a stream of both conscious and unconscious. This should not be understood in the way that Freud described the Id as something stormy, incomprehensible, dark. The flow is grouped and structured, definitely directional, driven by need as an output medium. The flow, of course, is such that it permeates the entire

life of the individual and goes beyond it. And when we say that the personality remains in our memory after physical death, what exactly remains in it? Informational traces that arose in the experience of this person remain. Not only her image. Everything that is with her remains connected, everything is integral. Why do they say that it is good when we do not see a dead loved one? Because we remember her as alive. Because it does not destroy the image of a complete personality that is before us. And then it is brighter, it is closer to the essence of the person who was next to us. And if there is no informational part in the flow of needs as a carrier of life, then there will be no system at all, which will have nothing to base it on.

A short remark from the field of actual practical psychology about experience: it is known that experience in the practical life of a person plays a double role. On the one hand, this role is positive, which does not require analysis. It is something without which it is simply impossible to exist. On the other hand, at the level of purely everyday, concrete problems, an experience, or a partial quantum of some experience, which for some reason was experienced by a person very acutely and left the biggest mark, and a person looks for it the fastest in this endless flow of information, can actually problematize, close the possibility of existing in a different way. It can take on the nature of motives, orientation, and, obscuring what interests us now, can actually "stop" the personality. Yes, we can not give up our habit, not go to a new level of communication with another person, but use everything we are used to. Experience can interfere with creativity, creativity. What, according to most scientists, hinders the flexibility and creativity of thinking? The fact that we, considering each task and each problem that arises before us, tend to act habitually, that is, on the basis of experience. If experience does not give us an answer to this question, we – and there are empirical facts about this – try to restructure the experience with the help of imagination, "for" the given situation, and still find some way out within the old experience. This is how the human psyche is arranged as a whole. And this happens instead of going to a new level of decision. This mechanism hinders creativity. In psychology, there is such a concept as inertia of action, which consists in the fact that a given person gravitates to a habitual action. I started to move, for example, in this direction, and it is very difficult for me to stop my hand and make another movement. That is, it is a habit. It's reflexive and it's comfortable psychologically. And

this inertia very often prevents us from actually approaching the creation of completely new ways of behaving, both at the level of practical action and at the level of thinking action.

Thus, experience is a genetic whole, arises according to all the laws of development of a complete personality, and exists in certain forms, and this form of existence of the personality changes in the same way as all its other structures change. Experience is included in the context of the existence of this personality and is connected with the lines of its development.

COGNITIVE SPHERE OF PERSONALITY

At the beginning of a short analysis of the cognitive component structure of the personality, we note an interesting fact: cognitive mental processes are not considered by the absolute majority of theorists as components of the personality!?! The very expression "extrapersonal psychology" is connected with this: the psychology of cognition "does not intersect" in modern science with the psychology of the individual, that is, paradoxically, with the psychology of the knower. This has many completely logical and objective explanations, but the problem does not disappear from them. And this fact is especially sad, because it is in the field of cognitive processes that psychology has accumulated the most empirical material and the most interesting theoretical generalizations. So the synthesis here would be more than appropriate and effective. We cannot dwell here on the analysis of the causes and consequences of this "gap", but it seems that such an analysis could reveal a lot of important things about the origins of the crisis in psychology, because it is, in fact, a style of scientific thinking: knowledge of the world, which is a necessary attribute of the "personality" system, for some reason it is stubbornly put "by the brackets" and studied outside this system...

The attributibility of cognition is determined by the informational component of the need, and, therefore, there is an objective necessity of the presence of certain mental structures, the action of which allows the need to exist, that is, it ensures the orientation of the subject and its interaction with the surrounding world. Cognition is a function of the existence of the individual, and it is in it that one should seek an understanding of his unity. In neurophysiology and cognitive psychology, there are data that after the birth of a person, the volume of his brain doubles twice: at birth, it is 350 cm³, during the first year of

life it reaches 700 cm³, and at the age of 12-13 – 1400 cm³. In the future, its surface area increases (this especially applies to the cortex of the large hemispheres).

What does this dynamic mean? It is very little to say that it is hereditary, because that is not the answer. We can put forward a hypothesis regarding the origins and mechanisms of just such a path of development of the human brain – an organ that is directly related to cognition. From fertilization to the birth of a human being, the need (mainly its informational component) seems to accumulate in brain cells, creating the informational basis of existence and, at the same time, a powerful energy potential for readiness (aspiration!) for self-renewal of information as a condition for further existence and development. The personality appears to be in a state of readiness for a real energy and information explosion, which occurs in the first year of its post-embryonic existence. This is really an explosion – it is impossible for a person to imagine something similar to what is happening to him, to his brain, to his psyche in such a critically small period of existence! We have already noted and will say again that we are not inclined to exacerbate the degree of negativity of the so-called "birth crisis", at least from the information point of view. Rather, it is like an insight, a sudden opening of the world. But the child turns out to be ready for this, and such a drastic increase in the volume of the brain in a very short time can only indicate that this is a completely determined, predicted, expected action towards the world of information. This "movement towards" is a manifestation of the subject's activity of the need for life, for existence.

It seems to us that the quantitative indicator (increase by 100%) is "excessive" in relation to purely adaptive tasks. It is more appropriate to talk about the tendency to take possession and experience-transforming the surrounding into "one's own -other" – into consciousness and self-awareness. No other living creature has such a size of brain changes as in humans. This speaks of the potential power of the intellect, and, in particular, of the readiness to perceive, or rather to "absorb" something much larger and more diverse than the world of nature: it is the second nature, the world of man. From the first days of life, the child perceives not only objects – he perceives language, an extremely complex information structure with many contexts and branches – and the child turns out to be capable of this! A unique and

universal means of human coexistence, coded and branched, is "under the power" of a newborn child. And, let's emphasize, only and exclusively to a human child.

In this regard, also adequately and synchronously in time, the child develops a "means of response" – his own language. Entering the world of social existence, "social fertilization" turns out to be synchronized with the "explosion" of the development of the cognitive sphere. This can only say that at the beginning of ontogenesis, the cognitive sphere is dominant in the existence and development of the individual. (At the same time, we do not at all reject the importance of processes occurring in other spheres of personality: we are talking about what has been called heterogeneity and heterochrony of mental development).

The first year of life, the "big explosion" of the development of the cognitive sphere gives rise to the cardinal direction of its further attitude – the differentiation of cognitive processes. The cognitive sphere as a function of cognition is initially integral, that is, unified. Its development represents a movement from a less developed, undifferentiated integrity, through differentiation, to an integrated unity. We actually mean that the function of cognition and orientation in the world can never be provided by some single, separate cognitive process. When O. M. Leontiev, researching the phylogeny of the psyche, comes to the conclusion that the development of cognition begins as a purely sensory process, he is certainly wrong. After all, for the orientation of a living, whole being in the world, even at the level of the simplest organism (amoeba or ciliate), sensation alone can never be enough: the organism orients itself, and this means that he reflects, stores information, somehow actualizes and transforms it – himself, already as a subject. And, therefore, we cannot be talking about sensors as such, sensors in our modern understanding of it, that is, only as sensations.

At low levels of life evolution, the cognitive sphere appears in its undeveloped and undifferentiated, but unity. Although this unity cannot yet be called integrity: cognition represents the functioning of a single, simplified elementary process, in which there are only elements and parts of those phenomena that we know as sensation, perception, memory, etc. And further, if we are already talking about phylogeny and about O.M. Leontiev, who, we note, investigated the development of the cognitive sphere in this work – Oleksiy Mykolayovych considers the

transition of the world to heterogeneity to be a determinant of the development of this sphere. But where does the world's heterogeneity come from? The question remains open, which is not surprising, given the time when the work was created.

It seems to us that the heterogeneity and complexity of the world is, first of all, a consequence of the existence of subjects of life – beings. They "capture" the space of life, master it, change, accumulate, implement and accumulate information again. And thus we have, in fact, one world of living beings. There is no determination here in its vulgar materialistic sense, and here the processes of interiorization and exteriorization cannot be separated in time: it is exactly one world, and it is self-determined through the subjects who live and act in it... As a result of the reflection of the world on this stage is not an image, it is rather an amorphous complex unity of information and its experience (emotions).

To some extent, this level of cognitive development is repeated in ontogenesis. This happens, in our opinion, in the embryonic period, when at 5-6 months of existence, the reflection phenomenon occurs (and this has been experimentally confirmed). It is complex, undifferentiated and simplified: it is (to use modern terms) simultaneous action: attention, feeling, perception, memory, thinking. With such knowledge, an image is not formed, as we said, but some formation of a general nature is formed, which has a faster emotional and signal, very vague and unstructured content. After the birth of a child, differentiation occurs very quickly, and experiments (numerous, especially in foreign psychology) record the action of individual processes and the presence of images.

So, genetically, initially, the cognitive sphere of a person is a simplified unstructured (amorphous) unity, and its further development takes place in the direction of differentiation, because such is the necessity of a person's existence in the biological and social environment. At the same time, it should be noted that differentiation does not mean the separation of processes from each other and from the individual as a whole: S. L. Rubinstein's expression that the human psyche is personal means in this case a close relationship and the determining role of the individual in relation to the functioning and development of mental cognitive processes. This is clearly visible in the subsequent ontogenesis: already at the end of the first year of a child's

life, the cognitive processes that exist as separate ones, at the same time, begin to unite into a new, higher, integrated whole. This process ends in adolescence (is it a coincidence that it coincides with another 100% increase in brain volume?).

Implied? Images formed as a result of a person's reflection of the world, in their sum create what is commonly called the "inner world" of an individual. They motivate activity and perform the function of self-regulation, but at the same time they develop themselves. This point is somewhat key and is interpreted differently in psychology. When modern cognitive psychology, in the person of Neisser or other researchers, talks about the so-called perceptual schemes, we are actually talking about the presence of a certain experience that exists in a person before the reflection of the external world begins, with which this reflection is compared, and, ultimately, a certain image is formed. A completely natural question arises for genetic psychology: where does the scheme come from? Cognitive psychology has never answered this question, because here either the idea of a "homunculus", which exists from the beginning, or the idea of a "stupid" infinity arises again, because one can say that this pattern arises from the previous pattern, and the previous pattern arises from the previous pattern, and thus we will go on into infinity and never find any origins.

We believe that in this case it is necessary to rely on a real understanding of the origins of the formation and existence of an individual. A scheme is a part, a constituent element of that socio-biological experience that is transmitted and causes the development and existence of the individual as a whole. In principle, it includes cognitive points, like others, and it is transmitted due to the so-called "social heredity", as P.P. Blonsky called it, from social beings – the child's parents. How this material is stored – science does not know, but this does not mean that it should not be investigated. So, the presence of what cognitive psychology calls cognitive schemes (you can call it another way – the presence of some previous, primary, basal experience in order to build an image) is not caused by some supernatural phenomena. This is due to the fact that a being is never born from the inanimate and impersonal: it is the bearer of experience. And the "cognitive sphere" is part of this experience.

Analyzing the cognitive sphere as a whole, we see that there are very complex relationships between the cognitive and the emotional at

different stages of the ontogenesis of the individual. And the fact that a person's primary images and primary experience are formed mainly on the basis of emotional experiences is absolutely true, but this also means that the cognitive sphere interacts with the emotional sphere, because without knowledge, at least any impressions are simply impossible. On the other hand, any signals about the surrounding world, even if they are the simplest, are at the same time emotional, sensual. This is especially clearly visible in the previous, primary stages of ontogenesis. Here, not only the complete unity of individual elements of knowledge, but also the entire cognitive sphere with the sphere of emotions is clearly visible.

Problematic at the moment is the issue of image formation. Despite the fact that numerous studies in psychology are devoted to the problem perception (OM Leontiev also wrote about this in one of his last parts), the problem is that we still do not know how an image is formed. And different interpretations of this process do not fully reveal its true meaning. The seemingly elementary question of how a person sees an image cannot be resolved at this level of science, because we cannot imagine this "seeing" as something other than a metaphor, because it is so far obvious to us that vision associated with certain perceptual systems. In this case, such systems do not exist.

On the other hand, where does a person orient himself: in the system of images that he has about the external world, or in this external world itself? In other words, what is actually reflected in my psyche: the person sitting in front of me, or am I dealing with the reflection of him in my psyche, with my image of this person? It is known that a lot of spears have been broken in this regard in philosophy, and many different hypotheses have been created, up to the absolute ignorance of the world, as if a person actually orients himself in his own images and there really is no objective world. We do not know the answer, for example, to the following question: how is the visual image formed due to hearing or other receptors, how do these transitions occur? There are a lot of riddles. It seems to us that the use of the phenomenon of experience, which has already been discussed, can partially help to answer some questions. In addition, the position stated in Spinoza's philosophy and his term "exhaustion of the external world by man" seem to us to be very heuristic. It is about the active interaction of a person with an object, as a result of which an image is formed, appears.

Again, we see that the explanation of any fact, in this case an image, is possible only if we "grab" in the experiment the process of its emergence, or the process of transition of one image into another, or the process of image change. In fact, it is about studying the genesis of the image.

Let's return to the problem of image development. In domestic studies (first of all – by O.V. Zaporozhets and his colleagues) it has been proven that an image develops, turning into a sign. This happens starting from the earliest stages of ontogenesis, due to the fact that the child's perception is accompanied by the comments of an adult. What, in fact, is a sensor standard? This is a certain object, phenomenon, property (color, for example, or the pitch of a sound), which in social reality for a child turns out to be inextricably connected with a word. Thus, almost from the very beginning, the image exists in the inner world at the same time and next to the corresponding term. Gradually, it "collapses", its sensuous saturation is hidden, and this is how a sign appears. We cannot "argue" with Vygotsky, who proved that it is the sign that "grows" because we have no empirical facts. But the genetic logic speaks for itself: the sign is not grown (it is simply too complicated and "alien"), but is created by the person himself by combining image and word. Why is this possible? The cultural-historical theory answers this question absolutely correctly – because human cognition is a personally active process (it is not a mirror image). Activity and activity create an inner world.

Vygotsky, analyzing the psychology of a blind child, concludes the work with the phrase: "Blindness is overcome by words!" [67]. Implied? The adequacy of a person's representation of the world is determined not by the world and not by the psychophysical state of sensory processes. It is determined by the existence of a complete personality in the social environment. Higher mental functions (mediation, arbitrariness) form new inter-functional connections, making the personality surprisingly flexible and viable. This is a compensation, but not due to other cognitive processes, but due to a different nature – the cultural environment, which provides the opportunity to exist literally "anything", if only the person himself wants it. The creation and use of a sign allows changing the ratio of processes, and the level of cognition is determined not by the development of any one process (thinking or

perception), but by the complexity and flexibility of the system of connections.

Consideration of psychological problems of the cognitive sphere of the individual should not concern only the aspect of ensuring mental adequacy reflected in the life plan. The moment of knowledge within the limits of the scientific understanding of reality is essential. We can state a serious stage of modern science, which, however, is due to the development not of psychology, but of other, first of all, natural sciences.

The direct reflection of reality in perception does not reveal to us its essential features and the secret mechanisms of the existence of a phenomenon or an object. This is achieved with the help of thinking that allows you to discover, retain, abstract and generalize the essential as such. Abstract knowledge arises, and the image of perception is supplemented and enriched. However, it remains an image, having all the relevant properties (constancy, objectivity, etc.). A person "transfers" this image to reality and studies, actually, not it as such, but its relationship with an abstract image. New knowledge appears and the illusion of knowing the world arises. A very unpleasant and dangerous illusion. The world turns out to be the way we imagine it. And this is necessary, because then a person feels confident, reliable and comfortable. But is the world really what exists in our imagination? Modern science (first of all, physics) comes to a paradoxical conclusion: we do not know the world, we do not know how to know it, instead we know the abstractions that we studied at school. This is enough "for life", but not for everyone and not always. The mechanism by which man became man, created culture, this mechanism seems to exhaust itself and turn into brakes for further development. It is necessary to change the strategy of studying the cognitive sphere. There are some facts that testify to a person's potential for further knowledge of the world.

Let's show two of them. The process of mediation is well-known and has become a "commonplace" of psychology. But here is one aspect: when a person creates a tool, he already knows what it is for him, that is, he knows some "piece" of the future (when a savage makes a notch in a tree, he does it for a reason: he knows that he will not have enough memory (!?) that one day he will look at her). And this is the real and great mystery of the human personality: the world, apparently, is given to us not only in perception and sensorics. Another point. We say – a talented, brilliant person discovers the hidden secrets of the world... Or

maybe this is not the case at all, maybe a talented person simply sees the world as it is, and not as it corresponds to pre-learned schemes? S. L. Rubinstein once wrote that human perception is organized quite pragmatically – there are so-called "strong" aspects of objects and phenomena that correspond to the immediate needs of life and on which a person orients himself. There is an alleged starting point. But any subject, phenomenon is limitless in its properties and qualities. Why can't we see them? And why did the genius see them? This is how the problem of contemplation arises: the world is not opposite me, as a storehouse of useful, harmful, pleasant or dangerous things; he is also around me (and I am in him), and if we look disinterestedly (from a pragmatic point of view), maybe we can see...

DIRECTION

Traditionally, the orientation of the individual is considered as a hierarchical motivational and need sphere, which is constantly becoming more complicated. We consider orientation quite narrowly, as a valid combination of the most important values, the most important meaning-making motives that make a person's life structured, ordered, and purposeful. Orientation in this sense is the substructure of the personality, thanks to which it makes sense to talk about the life phenomenon that we call the life path of the personality. The difference of the latter from development is fundamental. The life path is organized through the sphere of the inner world, through self-awareness and through values and meanings. Similar approaches regarding orientation were declared by H. Allport and L. I. Bozhovych. Bozhovych, combining orientation with the concept of "personality position", says that adolescence differs in terms of development in that it is at this age that a person's life position that is dominant throughout the next life. It is actually a system of meanings, a system of values. This is the core of a person's life that makes it orderly and socially acceptable. But at the same time, this does not mean that orientation is such a structure that has a purely and exclusively social nature. It is formed thanks to the system of the key experiences of the individual, and the key experiences, as we have already shown above, are a synthetic, an integrator of the entire inner world, which embodies both biological experiences, and actual biological states, and the social environment, and its perception by a person. It underlies the emergence and development of consciousness and self-awareness.

Thus, like all personality substructures, orientation is a substructure related to all others, it is an embodiment and a certain integrated union of the whole personality. However, like all other substructures, directionality is a specific substructure. The most essential components are values and meanings. If each personality is directed, then the question arises: directed to what? This question is not so easy to understand within the framework of personality psychology.

On the one hand, it can be understood as a question about typology. Thus, Spranger divided people into six types according to values (aesthetic, intellectual, ethical, and so on). Highlighting such types, we have not only the motives of an aesthetic person, but also what the most important, most essential thing this person sees in preserving the principle of beauty, harmony. An aesthetic person can work as an artist, but he can also work as a driver, teacher, or soldier. Orientation is not directly related to the profession. Orientation means a certain order of creation and structuring by a person of his own life world. Regardless of who this person is by profession, or what his educational level is, he strives to build his surrounding world so that it corresponds to his inner tendencies, his inner desires. Orientation is the creation, grouping, and structuring by a person of the world around him according to certain laws. When we talk about aesthetic orientation, it means according to the laws of beauty, when we talk about ethical orientation, it is according to the laws of goodness and justice, when we talk about pragmatic orientation, it means according to the laws of benefit, according to the laws of sale, according to the laws of the product. We believe that the directional approach to typology is the most interesting. After all, if we consider other typologies (extroverts – introverts of K.-H. Jung, etc.), upon careful analysis it becomes clear that they were derived theoretically and abstractly by the same Jung or anyone else and do not exist in reality. You can ask the question: why typology then?

In contrast to these approaches, the division into types by orientation is more appropriate. It comes from the upper spheres of the personality, from the orientation of the personality as structuring the world around him according to his own laws. And the approach to typology from the point of view of orientation is justified due to the fact that orientation is truly an exclusively personal indicator. Direction determines achievement. Orientation determines a person's lifestyle. Orientation determines the style of communication and what is most

important for a person in this life. When we talk about orientation, we are talking about existential values, existential meanings. Orientation permeates the entire personality, all spheres of life and all activities of the individual. Therefore, it seems to us that this structure is the least studied. A problematic point is the lack of methods for researching directionality. We do not consider the Bass test to be serious. The orientation studied by this test is not the subject of research that we described above.

As for development, genesis, it should be noted that the need as an energy and information medium is directed. Our conversations about orthogenesis are not fantasies. Evolution, development are directed. We know: it is a direction from simpler to more complex. In personal orientation, we see an evolutionary transition, a spiral from the orientation of biosocial needs to the orientation of the upper, spiritual level. This is orientation-personality. Again we return to the question: focus on what? We have already given one version of the answer: the focus on structuring one's own world according to one's own laws. On the other hand, we can talk about the orientation towards growth, the orientation to become more complex, to become more flexible and expedient, this means the urge to develop. And here the direction begins to coincide with self-actualization in the sense that every person strives to be what he can be, according to K. Rogers' conviction. At first glance, this understanding may seem rather abstract. And then this abstraction begins to fill up. We can tell through the understanding of direction what we can be. All can be more difficult. Everyone can be more developed. All can be more nuanced. Everyone can be more humane. All. And then there are details, depending on what you do, where you live, what you read, what you love – these are nuances. But here we answer absolutely clearly: we can all be what we can be – we can be more developed. And we can reach the level when a person can overcome this opposition of plus and minus, opposition of black and white. What is meant is that which may not be positive or negative, but may be higher, more difficult, better. It is better in this sense. More humane, more whole. The opposition of good and bad ends when we say that there is also a third. This third is more complicated, more appropriate and more complete. This is how we remove the age-old confrontation. This is what the personality is all about, this is its orientation of a higher kind.

ABILITIES

The substructure of personality abilities is a very important functional link of the personality structure. We will dwell on several, in our opinion, significant points. Firstly, abilities appear to a person as purely social assets that arise and develop precisely because a person lives in society. The social environment requires a person to function in a certain way, to achieve certain successes in solving some cases, and all this is possible thanks to abilities. We define abilities as the degree to which a person has mastered the means of action. It is implied that any activity that we undertake – study, work, physical, mental activity – necessarily includes a system of actions and a system of ways of their implementation. A person who has mastered the methods of action well is called capable, and a person who has mastered them to a lesser extent is called incapable. In the context of this, it should be said that, like all other substructures, genetic psychology considers the emergence of abilities as an absolutely necessary, natural process determined by the social conditions of a person's life. The realization of certain needs means meeting a person from an early age not only with objects that surround him, which a person wants to acquire in one way or another, but also with the need to do something with these objects, somehow manipulate them. In all types of activity, starting from subject-manipulative, which develops from one year in a child, and in further activities, we encounter the need to skillfully use actions as ways to achieve one or another goal. Social gives a person the opportunity to realize his goals, his needs in different fields, different directions, and everything depends on how quickly and qualitatively a person will master the methods of these actions.

Based on such an interpretation, from such an understanding, we must fundamentally remove the question of the origin of abilities in the form in which it appears in traditional psychology, which considers the origin of abilities as a question of what is more important – biological, morphological, physiological predispositions as a prerequisite development of abilities or the actual social environment in which these abilities are formed. This problem in this form does not exist due to the fact that a person will master actions and achieve various goals without fail, if he is a normally functioning person in society. Therefore, both prerequisites, and social requirements, and social practice, and the system of education as mandatory, are equally necessary, and the origin

of abilities is a holistic phenomenon. We cannot in any way divide into what is most important. However, the question of the origin of abilities is central in the paradigmatic plane of genetic psychology. Its solution here seems to be far from complete and much more interesting and deeper than a simple "competition" for primacy between representatives of natural-scientific and social approaches. An effective solution to the problem requires the application of the principle of non-disjunctivity established by the outstanding Russian psychologist O. V. Brushlinsky [46]. Ways of action (the degree of mastery of which, we remind you, we understand as the psychological content of the phenomenon called "ability") are, in fact, forms of purposeful conscious behavior of a person. They are formed in activity and imprinted, accumulated in the experience of the individual and humanity. Objectified in subject and other social products, these methods of action are preserved in the cultural-historical semiotic space. Deobjectification ("decoding") and appropriation through the internalization of these methods of action by new generations realizes the continuity (non-disjunctiveness) of the existence and development of abilities in this plane. But that's not all we mean. Accumulation of learned methods of action also occurs in the actual individual experience of each person. Reproduced and developed over hundreds of thousands of generations, this experience must necessarily affect the entire integrity of the personality, in particular, what we usually call bodily (biological) in it. "Social becomes biological" – this thesis in this case is literal and, in fact, undeniable. The methods of action change the morpho-physiological structure and dynamics of the whole system and thereby open another path of continuity, at the purely genetic level. This is a way of creating the potential abilities of a human being by the energy of love, some of which may become actual abilities at those points in space and time where these two paths can intersect. By the way, in our opinion, it is the second path of continuity that can open the foundations of understanding individual differences in abilities, because changes in the morpho-physiological thesaurus will occur both under the influence of learned forms of behavior and in accordance with the natural (biological) indicators of a given individual. The presented understanding reveals the real role of the information component of the need. In its lifelong course, what we call the potential abilities of a person is already available. And at the intersection of needs with the

social environment, its requirements, opportunities and limitations, this potential is actualized and developed. So, in fact, the line of genetic psychology attests to the redundancy and artificiality of the term "endowments" in considering the issue of abilities. If we do not abandon this word now, according to our views, the predispositions are never purely physiological, biological, because we hold the point of view that any biological structure of a person, just because he is a person, is actually a combination of social influences and purely natural structures. It can mean that a person, due to his genetic heredity, development or underdevelopment of certain organs or their systems, certain physiological or biochemical processes may be initially more or less capable of mastering certain methods of action. And this means, for example, that in order to become an artist, a person should have a sharp eye, that sensory processes should be sufficiently developed to distinguish certain nuances of color, certain shades of the color gamut; on the other hand, this person must have a well-developed and differentiated musculoskeletal apparatus, which will ensure the accuracy of movement of the fingers and the hand as a whole. And it is clear that the inclusion of such a person in a certain context of society, which involves the development of this method of action, will be much more effective than when we take another person who will not have these prerequisites.

But this question is not so simple. As research shows, the phenomenon of compensatory factors is very active in this aspect. Y.B. Hippenreiter [81] absolutely correctly gives an example regarding morphological data. For example, when after the death of the famous tenor Caruso, the structure of his vocal cords was examined, they turned out to be so rough, primitively hairy and knotty that if we did not know whose they were, we would never say that they were the ligaments of that person, the whole world was fascinated by the purity of her voice. That is, we are in a very interesting situation in this aspect: the organ should be physically, physiologically, morphologically developed in a healthy mode to certain limits, there should be no deformations. Then the social context still prevails, dominates. And if the social context, i.e. the environment in which the child is located, is favorable for the development of certain ways of acting – artistic, musical, scientific, sports and any other – and, on the other hand, if this favorability, comfort is combined with by the fact that it strongly

motivates the child as a whole person, and she wants to do it herself, and not under the coercion of another; if these two things are supplemented by a third person, i.e. a person or a number of people who personally perceive this child and want to teach him, develop in him these ways of acting, then this system will prevail over biological, physiological endowments, and this or that ability as a system of methods can be developed very highly and very strongly. But one should not forget about the limit, which is the norm of development of anatomical and physiological structures. That is, we are talking about a healthy brain, healthy muscles, and healthy organs in general. Only in this case, the mental, social is stronger than the morphological, biological. Simply put, if the situation contributes to the fact that the child really wants to learn something, he himself is so eager to have achievements in this area that he builds the appropriate "organs" in his activity (and then in his cross-functional psychological system), and such features can encourage development of abilities. And where a person has innate predispositions, but the listed social conditions are absent, the formation of abilities may not occur.

When it comes to the level of development of an ability, we should not deviate from the definition: it is simply the level of a person's mastery of ways of acting. Analyzing talent, genius, one very important thing should be noted: "personal imprint", the personal seal of a person whom we call talented, genius or simply a real master. On everything he did, there is a mark that this person did it and no one else can do it. It arises due to the fact that the system of abilities, methods of action is combined with personal structures, reflected, materialized in the product that is created as a result of the activity of this individual. The uniqueness of the pattern of interfunctional systems of this individual is embodied in things: it can be both a material object and an ideal construction. It is reflected in such a way that no one else can create such a thing, because all individuality is embodied in this work. It is clear that not all people achieve this. There should be a unique unity of the entire inner world and the entire personality as a whole.

The problem of researching the psychological features of children's giftedness is quite relevant in modern science, as evidenced by the general volume and variety of scientific publications devoted to its consideration. The appearance of generalizing theoretical and applied works indicates the seriousness of the researchers' intentions.

However, on the other hand, the somewhat superficial and descriptive nature of research should be maintained, and the very psychological nature of giftedness as a phenomenon remains unclear. A characteristic feature of this state of affairs is the ambiguity of the term itself. Thus, in the psychological dictionary of 1990, the term "giftedness" is given 5(!) definitions. It should be noted here that L.S. Vygotsky also wrote about the fact that such a state of affairs in psychology, when the same term is interpreted too ambiguously and arbitrarily, is an indicator of the insufficiency of theoretical analysis and a general crisis. In fact, "giftedness" in modern psychology is not a theoretical concept, and the "definitions" that accompany this word in the literature are just a statement of individual external manifestations of this phenomenon. We can really now, based on numerous scientific data, outline a fairly saturated picture of external manifestations of children's giftedness. It is noted that the most frequent manifestation of giftedness is early speech and a large vocabulary. Along with this, extreme attentiveness, insatiable curiosity and an excellent memory are noted. Next, the following parameters of giftedness are given: outstanding abilities, potential opportunities for achieving high results and already demonstrated achievements in one or more fields (intellectual abilities, specific learning abilities, creative or productive thinking, abilities for visual and performing activities, psychomotor abilities). Attention is drawn to the specifics of the personal qualities of gifted children, in particular, increased sensitivity, emotionality, a sense of justice, breadth of personal values, etc. are noted. Of course, the observed facts are very important, but we should pay attention to the fact that they do not bring us closer to understanding the essence of the phenomenon of giftedness. These facts represent a set of symptoms – manifestations of that mental phenomenon, which is called "childish giftedness". But it is impossible to say what its psychological nature is based on a simple consideration of these symptoms.

The transition from a simple fixation of individual manifestations (symptoms) of giftedness to a meaningful analysis of it as a complete mental phenomenon seems possible in the conceptual space of genetic psychology. In fact, the fact that the genetic study of the psyche (the approach to the psyche as "developing", according to H.S. Kostyuk, is the most expedient and effective in terms of its real understanding) has been known since the time of L.S. Vygotsky and H.S. Kostyuk. However,

in real research, this approach is used very rarely, and it is our point of view, sets a very interesting and heuristic space for the analysis of a mental phenomenon and can really solve the main scientific and cognitive problem, as it was formulated in his time by G.S. generate, the laws of its formation" [138, p. 123].

The key is the very provision that giftedness as a mental phenomenon *-occurs* (in this expression, as you can see, the fact that its integrity is fixed, because it is integrity that arises, and not a set of individual elements).

What we observe in the child, his notable successes, inquisitiveness, rapid progress in learning ETS – all this is a manifestation of what has arisen. What exactly, how and why it arose – these are the fundamental questions, they are the main points of the theoretical analysis of the problem. Next, we will express an assumption, albeit hypothetical, but based on a clear methodology of cultural-historical theory. L.S. Vygotsky showed that the peculiarities of development are determined not by the level of some individual mental functions, but by the specificity of the relationships between functions (the theory of interfunctional systems). We can assume that in the case of a child's giftedness, we have a kind of interfunctional unity, which ensures the level of development called "giftedness". It is fundamental that the unity that has arisen encompasses the entire psyche, and not just the intellectual or mnemonic spheres. That is why it makes sense to talk about the level of development of the child as a whole, as a subject, and not of its individual elements. Giftedness as a holistic (all-personal) interfunctional system has certain psychological characteristics. It is very mobile, the processes that support it are characterized by high dynamism, new connections between individual functions are established very quickly, which ensures the effects of exchange, compensation and overcompensation. In general, we should talk about the high mobility and mobility of this system (giftedness). It is also necessary to point out other, very significant properties of it. Firstly, here there is a unique relationship of the triad – affect, intellect, action (the term "affect" is used here in the sense of L.S. Vygotsky, i.e. rather not as a definition of emotions, but as a motivational and motivational phenomenon). L.S. Vygotsky convincingly showed that the key problem of children with mental retardation is a specific lag in action; thought, motive is very slowly realized in activity, hence the delay. It seems to us

that in the case of giftedness, the situation specifically "revolves": the action itself and the transition of motivation and thought into activity is here very fast and mobile. The relationship in the triad (affect, intelligence, action) is dynamic and inverse, so the results of the action, which are very often not foreseen by the child (especially in early ontogenesis), stimulate the activity of the affective and intellectual spheres. Since the transition to action becomes easier and faster from them, the stimuli for further desires and thoughts immediately arise. In the behavior of gifted children, this regularity can be seen in their inquisitiveness, "insatiability", mobility and easy switching, which, however, can be paradoxically combined with a strange stability of attention (this "paradoxically", of course, refers to the norm, not giftedness).

The speed, plasticity and fluidity of the gifted child's processes determines the second important characteristic – the quick and easy development of higher mental functions. Early speech development, the desire to embody one's inner world in the image or during performance, the tendency to operate with numbers – all this attests to the validity of the observed fact. This tendency is so vivid that a gifted child even has a kind of "shift" of sensitive periods of development. We do not have enough data to analyze the causes of such a phenomenon, but it seems to make sense to specifically investigate this psychological phenomenon.

Another characteristic concerns the fact that giftedness as a mental phenomenon not only arises, but also develops. It seems that in this unity, which is giftedness, the psyche realizes very brightly and strongly (hyperfunction) one of its essential functions, namely, projecting (modeling). In order to understand this characteristic, it is necessary to proceed to the answer to the following question: how does this all-personal integrity arise -interfunctional system, what is it called giftedness?

Analyzing the relationship between the natural and the cultural in the development of the psyche, L.S. Vygotsky notes that there is a kind of balance in the norm: each stage of maturation of certain structures corresponds to the specifics of the social situation of development in which the child acquires cultural and historical experience. It is this balance that determines the continuity in the development of higher mental functions. A person discovers and realizes his own needs and

inclinations, selecting among the numerous objects of social reality those that correspond to these internal manifestations. Assignment takes place in the form of a means of action. The appropriated tool acquires a psychological nature, enters into the structure of consciousness and, by "interfering" with the existing interfunctional systems, affects the further process of development – appropriation. This process was called "double mediation". However, there is another aspect here; a person does not appropriate a means as such, but makes something (someone) a means and only then appropriates it. We consider this position to be fundamental, because only a subject can do something with a means – the bearer of a complex inner world, in which life experience is represented and foreshadowing is inherent (a means is for what?). So, when we observe the process of transforming something (someone) into a psychological tool, we have before us the discovery of a model of the future created by the psyche. Since the result of this is changes in the psyche itself, we can talk about its self-modeling. Normally, let's recall, there is a relationship between the maturity of mental structures (and therefore their readiness to assign certain means – signs) and social systems of learning and upbringing, "passing" through which the child acquires relevant experience, therefore – self-models his own psyche. What will happen when the balance is disturbed? Vygotsky examines the problem of a defective child and says that he finds himself in a situation for which the structures of the psyche are not ready (have not matured). This is how a defect arises – for natural reasons, the maturation process is delayed, and the psyche is not ready to assimilate normative experience. Can we say that this is also the case hereturns, and a gifted child for natural reasons has the effect of faster maturation of individual functions? It seems to us that we cannot say so. The entire experience of studying gifted children shows that their success is determined not by the faster maturation of individual structures of the psyche, but by the already indicated properties of the whole personality as a single interfunctional system: flexibility, plasticity of processes, speed of dynamic phenomena and easy formation of higher (mediated) mental functions. This observation seems important in view of practical problems: one should be aware of the easy exhaustion of children. In addition, there is a hidden clue as to why one of the classic German philosophers said about these children that a prodigy is a child who has everything in the past... After all, how

do adults usually act when they meet children's giftedness? With the help of pedagogical techniques, they begin to overload some separate function (thinking, imagination, memory, etc.), which leads to the fact that an immature child, which is called "breaks down" and is exhausted, does not realize in life those potentials that supposedly "promised". An unbalanced child in such pedagogical conditions is easily deformed as a person.

Finally, attention should be paid to one more aspect of the analysis, which is particularly emphasized by modern genetic psychology. In fact, we talk about it almost all the time: it implies the need for a holistic approach to the analysis of the emergence and development of a certain mental phenomenon, which must be considered exclusively in the context of the entire personality. It is not the development of individual functions that determines giftedness, but, on the contrary, giftedness as a holistic and all-personal characteristic determines the specifics of the development of individual parts of the psyche. The main spiritual foundations of the human personality are universality, infinity and self-awareness of a person. Giftedness as a psychological indicator simply means that the child, thanks to the above-mentioned features, realizes these foundations faster and more actively in the ways he has. It is as if she is in a hurry to become a person, she is very early – subjective and personal. We would venture to assume that the early development of what can be called personality – this is the main and key parameter of giftedness. Indeed, what does it mean to acquire a language quickly and easily (and our observations indicate that gifted children do not just easily and quickly grow into speech culture, they are characterized by modeling, playing with speech means)? In our opinion, this means nothing more than the desire to develop subjectivity in oneself through the mechanism of creating means, because speech is a universal means of interaction in culture. What are the achievements of these children? Psychologically, they are the result of the discovery – the embodiment of the overall personal nature of a person (to leave one's own imprint). Finally, it should be noted the absolute peculiarity of the attitude in which gifted people (and not only children) stand to such a specific activity as play. We notice this all the time: a gifted child achieves the highest results very easily and without apparent effort – as if playing; gifted adults are very fond of humor, they usually gamble in various games, get excited, etc. This says a very important thing. After all, the

most essential feature of the game is that it involves absolutely free self-discovery by a person. We come again to the fact that this is the main sign of giftedness. The personal aspect of the problem of giftedness is important not only in terms of its scientific understanding. He forces one to be very careful towards the child, not to forget that, first of all, he is a person, and he, in addition to demonstrating his achievements, also needs to live [216].

Finally, note that the term "abilities" is used quite widely in psychology. The textbook division into general and special abilities does not withstand any professional criticism, due to the fact that we can speak, for example, more broadly. Has the ability to learn. No psychology textbook addresses this. In our opinion, this is an ability that is perhaps the most important for a person. After all, it determines to what extent a person is teachable, open to the formation of ways of acting in himself, open not only to the assimilation of knowledge, but also to its transformation into methods, and to what extent she can perform activities related to learning.

The classic, most objective interpretation of abilities can be found in B.M. Teplov [272]. He singles out three key characteristics of abilities: "Firstly, abilities are understood as individual psychological features that distinguish one person from another." Further analysis of this thesis leads to the resolution of one of the cardinal contradictions – the ratio of the general and the individual-unique in the personality: abilities are a structural element that any personality must have, in other words, there can be no personality without abilities. But, at the same time, there cannot be individuals with absolutely identical abilities. So, in fact, Teplov's first thesis has a much more general, holistic-personal nature, and we can formulate the opinion as follows: a holistic structure and its key elements are inherent in any personality, personality in general. And at the same time, this structure and its elements, as well as their relationship, are qualitatively unique in each individual. What can be called a unique and unrepeatable personality pattern emerges.

In the second thesis, B.M. Teplov clarifies the subject: "Abilities are not any general individual features, but only those that are related to the successful performance of some activity or several activities" [272, p. 16]. Thus, the structural link (face) acquires its own boundaries and direction.

Finally, the third thesis of the scientist, which is distinguished by complexity, because it actually concerns the psychological content of abilities and their dynamics. Abilities "are not reduced to existing abilities, skills or knowledge, but ... can explain the ease and speed of acquiring these knowledge and skills." What can this "lightness" mean, which is "explained" by abilities? Here, in fact, different levels ("vertical" dimension) are concentrated: from anatomical and physiological predispositions and elementary mental functions to the conscious regulation of one's own life. S. L. Rubinstein meant exactly this when he said: "...a person's abilities are something that is not brought up without his participation" [253, p. 137]. On the other hand, the degree of mastery of knowledge and skills (in fact, by psychological means) is determined by motivation, leading character traits, etc. (and this is the "horizontal" dimension of the interaction of individual facets). Finally, the degree of mastery of psychological means determines the quality of life and social interaction, the content of a person's spiritual experiences (the unity of the biological, social, and spiritual is the real basis for the existence and vital formation of the individual as a whole). A conceptually important genetic fact emerges from the analyzed position – abilities exist only in development. They arise, function, develop according to their own laws, which operate in the context of general personal laws of the formation of an individual. It is better to follow the emergence of abilities in early ontogenesis and on the example of so-called "general" abilities. Here we have fascinating facts that reveal that abilities of different natures arise by a single mechanism. In particular, we have in mind such abilities as, for example, walking upright – on the one hand (seemingly a purely physiological ability) and speech – on the other (an ability, of course, socio-psychological). In both cases, the biological background (structure, functioning, state of the anatomical and physiological, first of all, nervous organization) is absolutely important. We must say here that the significance of the biological and bodily background remains important always, throughout the entire life of a person. Therefore, for the emergence (initial stage of development) of abilities, the "body" must acquire a certain degree of maturity. The next condition is that a person as a complete individual must survive a tense and contradictory encounter with the social environment. The initiator of this meeting must be the person himself, and the need must be such that it cannot be realized in the conditions of the current capabilities of the person. In the

first case (walking straight), we have two needs that prompt the "meeting" – the need for psychological separation from the mother and the need for knowledge, in the second case, two needs also interact – the need to control the behavior of an adult and the need to express one's own experiences. In both cases, the child needs to master the means of realizing the specified needs. The social environment, and this is a necessary condition for further movement, should provide the opportunity for the child to form such means, and for this it should have them in a special sign and symbolic form. The assimilation and appropriation of means means not only the satisfaction of a need, but also the emergence of a new ability as a structural element of the personality. In the future, abilities not only develop, but also interact with each other, as well as with other structures (facets), forming permanent complex interfunctional systems. B.M. Teplov showed on the example of musical activity that its success is determined by an integrated ability, which he called "musicality". It includes three abilities as constituent elements. "Musicality" itself means the ability to experience the content of a musical work.

Therefore, the integrity, uniqueness of the individual is formed, exists and becomes in its living movement. It includes socio-cultural values, on the one hand, and the biological, genetic background of the individual, on the other.

...Concluding the conversation about the structure of the personality, several very important things should be noted.

Firstly, we described the structure of the personality as we see it, not just because it seems so to us, but we tried to enter the field of determination of development, its laws and mechanisms; the process of an individual's existence in the world. It seemed to us that at this moment in time we can talk about the presence of such a structure in an individual. This does not mean at all that we insist that this is the only structure of personality. It seems to us that this question is open, because we still really know very little about personality, we see very little of human existence. We see a person in the situations of that life, which is at the present time. If we take a person from the beginning of the human era, he did not have such a personality structure: he was undeveloped. One more remark about the infinity of the individual will be appropriate here. F. M. Dostoevsky once wrote very vividly in "The Brothers Karamazov" that there is a real personality of a person. And a

real personality is one that emerges in special life conditions. And no one knows what it is and what it can be. What structures will emerge, how will they be restructured, what will be the dynamics. This is truly an eternal mystery of man. We cannot understand how it happened that the personality of each person contained the entire universe. How is it that when I hear that a new galaxy has been discovered that no one has ever seen or will ever see, I can imagine it. This "vision" was born inside a person, in his inner world. These things remain unclear, and we are talking about the fact that the individual remains open to both the world and the depths of his existence, the possibilities of reflecting this world, experiencing it. And just as surely, it remains forever open to scientific research. And this should be accepted normally and not strive to build a single and unsurpassed theory of personality for life, and get very nervous when someone does not like it. We will always find something in a person that does not fit into any theory. And this is exactly what I would like to conclude the consideration of the personality structure, because this is not the end, but the beginning. This is the eternal beginning of the study of man, which is his eternal life in general.

EXISTENCE

...The existence of nature is expedient – it is indisputable. And this is how a person makes this existence. It does not "invent", does not "invent" expediency, does not "endow" nature with it – it actually creates it (expediency). Firstly, a person, remaining a part of nature, carries out goal setting in conscious activity; and in an infinitely large collection of representatives of the human race, in the infinite time, the existence of generations represents a valid expedient moment in which natural phenomena and natural essence change. Man changes nature, but not only in his activities. It changes it with its very essence and existence. Hence, secondly, the very essence of man is natural. A person is a form of existence of nature, natural, in which it is closely intertwined with the social and cultural and is an absolutely special, unique lump of self-reflective biosocial unity. Human life, the existence of an individual in some completely incredible, wonderful way absorbs everything – not only nature as an entity – the whole world. It is not just natural – it is nature itself, the world itself in the infinity of potentials and directions, depths and peaks of existence. This is how a special fabric of the expediency of the world is created, into which human life is woven. This is how the ontology of its existence arises – a drama. To try to

understand it, it is necessary to overcome reductionism, to realize that the collection of any, in principle – even an infinite number of separate empirical facts will not give us anything to understand this drama. It is necessary to investigate the existence of a whole person, a separate life, fate...

One of the really deep and true experts of the problem, S. L. Rubinstein, wrote that "existence is participation in the life process. To live means to change and happen, to act and suffer, to persist and change. Existent – that which lives and moves, becomes and turns into something else" [250, p. 304]. Man is captivated by the flow of this universal existence of the world, and, in this sense, he exists like any other component of the world. Any existing object has **essence**, which, referring again to S. L. Rubinstein, is not some abstraction that was invented by analysts and endowed with some ability to "give birth" to the existing. No, the essence is as clear and tangible as its entire "carrier", it is as if "dissolved", presented in each of its elements, in each dynamism. A tense contradictory (connective) unity of essence and existence arises. S. L. Rubinstein seems not to have time to finish the thought, to bring it to its logical end. How is this contradiction resolved? In what? It seems to us that the conjunctive, conflicting, contradictory unity of essence and existence is resolved in an absolutely unique act of realization. If you think about it, the entire content of our book is permeated with this idea: development, dynamics, formation of personality (existence) is, in fact, a way of existence of one's own universal essence – needs as a contradictory energy-active information formation. And this contradiction is resolved by implementation: the embodiment of the real nature of a person in a work, a product, in the end, in the greatest miracle – a new person, a child.

... Let's repeat: this (or almost this) is how all living things exist. But man has another way of existence, unique and only: he is given to reflect his own existence. To choose, to manage, to experience, to change and ... in the end, to meet with its ultimate nature – after all, I am a natural being. This is the main drama of human life. Ontologically, a person is woven into this being: and just as the day follows the morning, so maturity follows childhood and youth; as day turns to evening, so maturity turns to old age; and as evening replaces night, so old age replaces ... deep old age ... and somewhere there, on the border of deep

night and early-early morning, I will go ... so that a new childhood, a new life will come and this eternal existence of people will never end ... But, even if I go with full awareness of this (V. Vysotsky said – "... That my end is still not the end: The end is someone's beginning... I manage to smile, **Isaw**, who will come for me..."), if I understood and "saw" – it's all the same drama... How to leave this world, such a familiar, native world that has become mine?

Two things, says Rubinstein, make it a tragedy for a person to experience waiting for his own farewell:firstly, fear of impossibility (life in general, plans, affairs) and secondly – concern for loved ones – "How are they without me?". But that's probably not all. It seems to us that a person still does not seriously and maturely believe that his existence will be interrupted. And so, this is "How are they without me?" must be supplemented, and how am I without them – there, somewhere? And in general – what is there?

It is this period (we called it "deep old age", although, of course, there is not only a chronological aspect here – in whom it can occur, unfortunately, long before physical old age) turns out to be the core of the reinterpretation of existence, when it all happens in a special way, instantly holistically, expressed in thoughts, feelings, aspirations, desires. Why so? Because the night exists in order to "not suffer and sleep peacefully." Carefree, that is, away from current worries and bustle. But this is "everyday logic". And at the level of thinking about eternity (and finitude) of being is completely different. I analyze what I have done after I "entered the morning", as in that adolescent age, which illuminated before me for the first time some idea, or the essence of common sense, or my future activity, a dramatic situation, etc. This is a kind of creativity. After all, creativity never begins, it exists constantly. But how is it implemented? And how is our life realized? The content of this realization is individual for each person, and its form for all is drama.

After all, life is finite, it's not a pity to experience it (I would still like to have estates, cars, estates, I would like the whole world to be mine!), but ... I, my dear goodness, must go ... I I am angry at my loved ones, at those who helped me live, embellished my work... and I am offended by them. I spit out a bile-stained piece of some unfair (false and offensive) truth, and in it – bad good and good evil. This truth can be unfair to the one to whom it is addressed. But it is the truth, because it is my truth.

That's how I see our relationship, and that's why it's true for me. But from the other's point of view, it is unfair, because he sees and constructs the situation in a fundamentally different way: this person really treats me well, frankly, based on the experience of conscience. She actually professes true morality and love for people in her life with me. That is why this truth is unfair.

"Good evil" is expressed with good intentions, it affects the basic, root and very thin strings of a person, and ... always offends him. From the mentor's side, it is like kindness, but in another person it is evil, because it disturbs, turns everything in it upside down. And "evil good" – expressed with malice, even if it is good, "good", the right word, will return to me ... with malice.

... Before the abyss of spiritual and physical disappearance of me as "I", my existence is the drama in which I analyze above all my bad deeds. Existence is directed both "inside" me and at the same time to the future. And, it turns out, I just have to say something about the future at this last point. Addressing "inside" means that I have to say about myself something. But such a clear rational demarcation never happens. It turns out that everything happens differently: a complex, integral, emotionally saturated analysis of my entire being is carried out, an analysis of my dramatic life, illuminated by a futuristic concept – always turning to the future – from the very beginning to the very end. And I create and express only good, gentle impulses, destroying everything vile, insidious, evil in me. I, being on the edge of my own material existence, act as a seer of my own future. I either completely destroy myself, or I find "points" of dignity in myself, which I send to the future. And in general, I repent. My remorse is my strength for the future.

... And when I stand before the abyss of nothingness, there is this eternal in me, which I now take off from myself, like a blanket is thrown from a horse... And I look into the future without optimism, but with my abilities, which will be carried out by descendants.

And if I'm talking about the tragic nature of existence, it's not about how I'll be buried (loudly or not), what words will be said and how many tears will flow.

The drama, in fact, is not in me, but in those people who will stand at my grave – the ups and downs of my drama. It is they who carry and reproduce the drama as my strength, greatness or my insignificance (when bandits are buried – many beautiful tombstones, wreaths, other

splendor... and no big and really beautiful words, because they (bandits) are unborn, therefore that they did not have the drama of this life. This banditry generated and actualized only the protective property of enriching their somatic state or their loved ones, and even then not exactly as they would like it).

It is something that generates in me another substance of my Self and rejects the first one. This is what exists in me like a dagger that has pierced the human body and continues to live in it with its own life. So is a dream: it sees through me as a person. I see in it the nuances of colors, I see in it my being, freed from light and from everything natural.

Falling asleep, I see only my own world. In it I see both myself and others another person, and covers the global natural meaning of our existence.

In this state (and it is very similar to the state that accompanies the end of a person's existence), I discover another exciting fact – I discover that I have a purpose in life. The purpose of life is set by the subject himself. He exhausts her, and this is tragic.

When S. L. Rubinstein writes that a person's life can be carried out in two ways – as a simple functioning, devoid of reflection and ideal (1), and as a conscious extraction of existence (2), he is, of course, right. But at the same time, it is not right... This thesis of the Master led to the appearance of many followers of the so-called "psychology of everyday life". It is even claimed that this same everyday life, unreflected and not enlightened by self-awareness, generally prevails in human existence in terms of time parameters. But this is already a big lie. Only a psychologically deficient person can live like this, and this is no longer a human existence. They forget about the Other. He is a mirror, he is the one who constantly and always needs reflexivity and rising above himself. Transcendence is not the destiny of the outstanding and especially gifted (A. Maslow once started from something similar, developing the concept of self-actualization). But transcendence is not withdrawal from the world. This is coming to him. The problem is, rather, not in absorption in everyday life, as some particularly zealous researchers imagine, but in our fear of being reflective. I think I will look ridiculous and silly if I think seriously about the great and the finite... An oddball, a loser, a weirdo... Is that really it? I actually encounter these eternal existential problems at every step, in every moment – death, loneliness, isolation, meaninglessness, love, loyalty, decency. I do not

avoid them, but solve them at my level. But I always solve, I never avoid. I simply cannot do otherwise. We studied the life stories of criminals, homeless people, drug addicts, that is, the unborn, the unfulfilled, those who did not happen. However, these are really exciting dramas. This is how they experience them. You just need to feel them as people... True, these are other dramas, another level. And who will define it? And he is indeed right. Maslow, when he says that the most self-actualized person can be an ordinary (average) housewife who saw the meaning of her existence in the comfort, cleanliness and health of her loved ones. It happened.

We would like to warn young researchers against too hasty judgments and hopes for the opinions of beloved classics, taken out of the context not only of their works, their lives, their existence. The same SL Rubinstein lived a very difficult and ambiguous life. It happened, however... not in what he himself wanted. It happened not in the works, but in the students, who were so talented and devoted that they finished the implementation of the plan. But what a drama it was for Rubinstein himself! After all, this is what he wrote in his last, most important and most beloved book: "My duty is clear. Delay is impossible. Negligence would be a crime. To complete my life, before I finish it and go, I still have three books to write. My first work is almost finished. Today I make a sacred vow: to give all my heart, blood, all the flame of life, all the strength of my spirit to the completion of the third book – the final, beloved one, about truth and goodness, about ethics, about man. It is the meaning and justification of my life" [251, p. 487] ... and we hold this book in our hands. But Serhiy Leonidovych never finished it, the students did it. What a drama of life!

Yes, the level of drama is one of the important indicators of the level of personality development. We talk about the drama of fate, the drama of life, the drama of the personality itself... because we always think about the finitude of existence and about feasibility. Drama is always spiritual – no matter what happens in "everyday life" – betrayal, insult, quarrel, envy – drama when the spirit is captured. And it is also very important that the drama is connected not only with the awareness of the finitude of existence, but also with the awareness of one's own limits: the drama is that I, in fact, cannot rise above myself and become higher than myself. We may not rise, and then we face the drama of the impossible. But we can... try: realizing our inability,

limitations, weakness and dependence, we turn to the inner world and ... work with it. We become stronger, higher, better. And it is not so important in what form and how we do it: reading books, watching movies, listening to music and ... thinking, raising a child and seeing in it light and eternal, doing good to our loved ones and ... forgiving them, reaching the peaks... The main thing is that this work is difficult, uncomfortable, and long. We force our mind and our feelings to work so that, united in a contradictory, inextricably connected pair, they create a human – a subject of life born by myself.

Human existence is dramatic, as evidenced by the mentioned reasons. And everyone has their own drama, as well as their unique life. However, it seems to us that there are some milestones, key moments of the ontogenesis of human existence, which **objectively** contradictory and dramatic.

1. The genesis of the existence of a human individual and his preparation for life in this world. This is a real drama of the spirit. There are many actors and interests, many semantic "layers". Was this new being conceived in love, what impulse of biosocial need did it receive? What is the relationship between the parents and the multi-faceted, multi-layered interaction of this unborn human being and the mother. All this is very important. At this time, the child already takes a lot from the world – both material and non-material. And she responds to the world, of course, as best she can. The latest data, obtained with the help of modern equipment, showed that already in 6-7 weeks it is existence. There is already an answer. It is important how they wait for it, what they talk about and think about, what they are preparing for. We do not know what and how this creature thinks and feels, but it is already active: it chooses a place where and how it is more convenient, it declares itself, expressing its states. She is preparing. It is also the drama of a woman whose whole life will be different, and she has also felt and understood something that cannot be guessed... This is the existence of the two of them. She, this unborn human child, is already structuring the relationship, the environment, the expectations, if... she is expected. Or – it does nothing if it is not expected, and then it withers already in the womb – unexpected, unnecessary, superfluous... This is how it will come into this world, having already passed the first drama of its existence – in bright and joyful tones or, on the contrary, in the sad and fearful.

2.I enter life, breathe it in. Not fear and discomfort, but drama, because I come to create my own life. I saw these native people whom I already know, but now – I saw, "breathed in" this lump of social existence – beautiful and so colorful, but at the same time difficult, unfair. A born child is eternity expressed. "Primeval infant" – that's what Jung calls him. I am the beginning and infinite finitude, I am potency, energy and at the same time memory, experience. I am burdened with the task of becoming, happening and ... not losing myself. I am not only open to influences. "Spiritual origin is a kind of leap into the world, and woe to everything that wants to establish itself when it does not find a correspondence for itself in any of the possible aspects of the world and cannot connect with any of them!" [316, p. 35]. This is the real drama of a child – you need to connect with this world, but how and with what exactly?

... And a child is always alone in this world. This is not the kind of loneliness that existentialists talk about, because it is not "thrown" into the world, if the whole world participated in its creation and birth. A child is lonely as a meaningful unity, dissimilar, non-analogous, atypical. She is herself. Only she is like that. "She is an ancient baby in an ancient [eternal] loneliness of an ancient element; the primordial baby is the unfolding of the primordial egg, just as the whole world is the unfolding of itself" [316, p. 58].

The child must enter this world, make it his own, and he forms the inner world in himself, appropriating the outer one. This is very difficult, because it contradicts her being and inner nature. And the child creates a game – a world of fantasies, special actions, experiences. It is preserved and developed in the game. Because of her, she stops being lonely. The child creates a myth: game myths, metaphors, fairy tales become a real condition and source, as well as a driving force of development, since they are the reality in which a child develops freely and freely. Personal creative reflection is born.

The child's drama also lies in the fact that he is a socially mature being and ... is not perceived that way by those around him. And its maturity, however, does not cause doubts in the understanding that it exists, is carried out in the endless appropriation of experience. It is open and ... protected.

The drama of childhood contains the aspect and imprint of the Other. It is here that the Other first becomes a mirror in which I see both

him and myself. And this is how my Self, my inner world, arises and develops.

This drama, this tension (pure and open) of a child's existence will serve me many times more when I grow up...

3. A dramatic moment of life associated with the emergence of the possibility of continuing life through the reproduction of one's own kind. No matter what is written and said about it (and they write – a lot), in fact – this is really the drama of my existence. The biological is very powerful, makes a statement about itself, the need is restructured, and the inner and outer world changes... for me. Those unexplored corners of human relationships and passions, which are not so closed, but simply ... uninteresting in themselves or something, are revealed. Now they are the main thing. I feel this power in myself – an opportunity, this universal drive and ... I am entering a very important moment of life's drama: "Am I the last creature or do I have the right?". Of course, this is not what F. M. Dostoevsky had in mind when he put this phrase in the mouth of his favorite hero, but ... what a phrase! What happened to us there, on this touchstone of one of the most important periods of formation? What is happening to our children? After all, one cannot seriously schematize "according to Freud", as if there is a struggle between the Id and the Super-Ego. But not everything is like that. A dramatic canvas unfolds: I need, absolutely need to find out what is behind this train? What is he, what gives? And – it's scary, and also – it's somehow not quite human, based on what I understood and appropriated about human things. how to be And you need to like and be liked (and again this dizzyingly complex contradictory unity of animal and human). Dramatism is intensified by the fact that it is real, in fact there is a meaning in it – the emergence of a new life; but actually I do not see this meaning, I do not experience it, I am very far from it. And also – girlfriends and friends, their experience – real and fictional – and my reputation in the team, my maturity, which is extremely important... There is another very important aspect of this drama, which is not realized and is not noticed. These are stylistic features of further sexual behavior. It is here that they are deposited, often stored for a lifetime. Will a sexual relationship for me always be connected, if not with love, then at least with human feelings – kindness, warmth, beauty, openness, frankness, transparency, respect. Or ... none of this, nothing from existence, but relationships, sex are just a means, soulless and trivial, a

means to assert oneself, to get pleasure, to forget, to test, to take risks, in the end, just to suppress the urgent impulses of internal organs for a certain time. Everything is complicated and ... with existential consequences – not only for me. The other is the person to whom I give myself or accept from her, who she is, as she is, so will I be. And also – like children: how human will they be, how much will they exist – will they happen? After all, it largely depends on how and with whom they were conceived...

This drama is just beginning here, in the period of puberty. It is the most acute (because it is real, because it is outside of me, but within us, between me and the other) and continues throughout life, developing and enriching, moving into the drama of my children and grandchildren...

4. Drama of maturity. One might ask, is the existence of an adult human at all dramatic? And to answer – yes, and very much! After all, this is the most important thing: an adult is the one who acts, chooses, answers. There is a kind of hopelessness and at the same time pathos in this. "I decide! And I know that the lives of my loved ones, my growth, my efficiency, my health depend on it. And yet, strangely enough, the main actor here is not me. The people who surround me are related to me. More is required of me: will I be able to understand the intricacies of the surrounding reality and other people's relationships; will I be able to understand, feel my world. What (who) is more important? In fact, my every step is a decision: a movement towards something from something; self-determination, self-efficacy. I'm always at a crossroads, it's fascinating and depressing, inspiring and frightening – because you're alone... There is something very good and pleasant, and you have to give it up. You look for compromises, you find them, and they collapse, you look for them again. But there comes a time when you have to decide. And you know that you are giving up... and you already know that, in the end, you are finished. Everything will end one way or another – a hint, a whisper. And will you be able to remain a person who happened? What exactly will you do?

...It is not true that we, adults, living "everyday", do not see life in this way and do not solve these problems. As the well-known existentialist psychotherapist I. Yalom wrote about it, in order to think about such things, you need to distract yourself from the fluidity and bustle, focus on the eternal, and delve into your experiences. This is a

beautiful myth and a good defense mechanism for neurotics. Let's not forget Rubinstein – "the essence is dissolved in existence, in the existing", and this is the process of becoming. In fact, we always, in every detail of this moment, solve these "eternal" questions, compare our actions with them. Otherwise... it doesn't work. Only a highly traumatized neurotic runs away from them, but precisely because of this he is noticeably, clearly inadequate. Most likely, we can ever, very rarely, do something by "skipping" these problems ("Beyond personality" is a wonderful phrase of Vygotsky), but then we "repaid a hundredfold". I can take steps in the heat of passion (pernicious, bright, righteous, offended – it doesn't matter) for a certain time "forgetting" about my adulthood and responsibility, but I actually remember it, somehow persuade myself, somehow explain to myself... But then the time will surely come when I will answer – to myself, to my essence, to my existence, which means, in some sense, to the whole world. And you should not think that this will happen, as Yalom writes, in a comfortable chair, in peace and quiet "under the TV and slippers." It will embrace Me when it is needed, and force it to sum up, answer, decide. The only question is how far I will go, how close I will come to becoming like the "unborn" and the "unrealized"...

Yes, sometimes we don't have time, unfortunately. My patient, who was misunderstood and "killed" at home, oppressed by everyday life, unappreciated and unfulfilled, was actually a person in the full sense of the word – creative, original and, of course, ambitious and offensive. A special situation is an insult due to misunderstanding, non-recognition, pragmatism, and ... suddenly a person who understands, appreciates, sympathizes, "grabs" the true significance. In general, nothing seemed to have happened, in the everyday sense, but there was some internal "departure". And the essence "sounded", and then it turned out that you need to think and evaluate and make a choice, and to choose, it turned out, and nothing... All this is so... at this moment. But what a drama it could be! You can't wait for an "armchair and comfort", the soul really has to work all the time – here the poet is right.

5. Drama of the end [end]. I analyze my life path, and in this analysis my colleagues, my friends, loved ones who were with me and now continue this path without me... And this last stage becomes very strong socially: the biological has already left (or is leaving). The drama acquires a social tone: the departure of an exceptionally unique

personality and... how painful it is to leave this world: "What a light of reason has gone out! What kind of heart has stopped beating..." Agree, this should be said about each of us... With my demise [death], I create the last surge, which becomes a drama for other people. Why? Because my beautiful words, beautiful deeds, my original thoughts (they are necessarily unique, because they are only and exclusively mine), the results of my activities, my unique and unique attitude towards people and their attitude towards me – are one and ... disappear. And L.S. Vygotsky, speaking about the fact that the formation of a personality is dramatic, actually understood well what exactly drama consists of. Drama is in me, but ... outside. This social, essential existence, colored by the human emotions of people who bow down to a human cold body, creates a true portrait of that individual who has passed away. And his life turns into a drama for us because we lost this person. I turn again to the words of the poet: it was he, this candle, ... went out. But our mind did not fade, and our heart did not stop beating. And we return in a prognostic reflection of what happened: another person died, the flow of life ended, decay, the beginning of which was at the same time the beginning of another... And I want to emphasize once again the greatness of the social being in order to understand that a dramatic situation can happen only then, when this personality – which has departed, grown cold, died – becomes the beginning of the reflection of another – individual, personal, historical. It absorbs the peculiarities of life, which are outlined by the personal meaning of the activity of the one who left. This is his attitude towards his loved ones, friends and, most importantly, towards his children and his parents. I just now thought that there were two people in my life, with whom, with the memory of whom, even on my deathbed, I will probably somehow... say goodbye – these are my mother and grandfather. These are the people who made me human; my development turned out to be connected with the efforts of these people. Their attitude – with greatness and dignity – towards me; and in me they saw an attentive, sensitive, kind person in the making. And I realized that sometimes the other person does something for me that cannot be noticed – he sees me in some future, and with his life, his communication with me – leads me to me – such and such ... leads. And I do the same myself. Not for pragmatic reasons (say, something good will be remembered about me), but for self-discovery. As a person, I cannot do otherwise: I imitate (not identically,

but adequately) examples of a fair, empathetic, gentle, kind attitude towards another person, which generate in him an adequate (not identical) counter-intention. However, not only that. I may not want to say anything to anyone I don't want to teach and educate anyone, I just live, I don't set actual goals to follow examples of behavioral reactions (moral, intellectual, physical and labor). And I ask the question, why then am I appropriating these samples? After all, in fact, I do not own them, but I create my samples based on them. Most likely, the examples of people close to me serve me not as a standard, but as a certain means, the mastery of which evokes in me that human thing that deserves the attention of even myself. I value in myself what is truly unique and common to me. And the main thing here is the attitude towards the other. How do I know this in myself? There is a moment in life when my whole being is revealed to me in its untaintedness and generality. This is the moment of falling asleep, which causes special and deep thoughts, feelings, meanings. Why falling asleep? Because, I am sure, the wisest person is the one who falls asleep. At this moment, she is pure, freed from the social layers of her attributive biological being. She remains in her pure infant-like spiritual substance. I am sure that nature gives us a chance – this is the "return" of the child with its purity, potency, infinity, social maturity and a very special loneliness – which can give a lot to someone who is attentive to himself. The time before bed brings a child who has freed herself... Freed, because she seems to be in flight, she is in the world, and this is reality for her. Perhaps here we meet our true spirituality – purity without social layers. This condition, in my opinion, deserves the attention that our psychologists, physiologists, philosophers have not yet shown to it... It is something that has been freed for a moment, purely astral, moral, spiritual, freed, I repeat, from social layers and biological potentials. Freed up, because she seems to be in flight, she is in the world, and this is a reality for her. Perhaps here we meet our true spirituality – purity without social layers. This condition, in my opinion, deserves the attention that our

psychologists, physiologists, philosophers have not yet shown to it... It is something that has been freed for a moment, purely astral, moral, spiritual, freed, I repeat, from social layers and biological potentials.

In the same way, a dream is not a fact of unfulfilled desires, but a fact of a person's freed spiritual and sensual intention.

... The problem of existence has a different perspective and acquires an unexpectedly new onecoloring, if we proceed from a genetic understanding of the fundamental fact of the ratio of biological and social in the functioning of the psychic core of the individual. I want to clearly and clearly explain what the essence of the issue is here.

It consists in the fact that we have come to a conclusion that is paradoxical and unexpected, but unequivocal (let the "unbelieving Homms" think that it does not deserve attention).

We are talking about the discovery of the absolutely unique fact that the real core of the personality is a genetically original contradictory relationship, the name of which is *need*. And when we speak of this and compare this statement with various other statements, it seems to me necessary to turn to the Bible as an eternal knowledge of immense value. The genetically original relationship that constitutes a personality is called "need". And when we take the Gospel from Matthew, we say – the dagger piercing our being is the essence, there is a need to be freed from it.

I consider it my duty to say that on a huge mass of theoretical and empirical data we had to single out an absolutely impressive unit of personality – this is the ratio of biological and social, which turns out to be *need*. I would say the wrong thing: the genetically original relationship that constitutes a person is need. Need, as a certain dichotomous pair of biological and social relations, constitutes a personality when it is born, and when it develops, and a developed, and, in the final account, a fading personality. This is the first fundamental fact. The second fact: when we say that a person is a lump, it is, in general, a product of social relations, then what do we mean? In this case, I mean that society, the environment, woven into the biological organismic level, leads to the fact that the individual in the process of development constitutes for himself the fact of the presence of his biosocial being.

What does this constitution consist of? It turns out that it is social a fundamental, unique, absolutely stunning moment of a person's life,

turns into the process of an individual becoming a personality. Why? An individual becomes a personality due to the fact that "in him" there are really fundamental morphological structures, which in their combination form a biological, morphologically designed structure. The influence of the external environment, the environment and the ratio of this (social) and existing biological creates a completely different parameter, which, arising in a person as an individual, turns him into a personality. Why "personality"? Because we have a moment of majestic individual existence and that absolutely unique, which is a social collective.

THE NOTION OF "PERSONALITY" IN PSYCHOLOGY

Human psychic phenomena do not exist in isolation. Together they create a unique pattern, i.e. psychological integrity (an inter-functional psychological system). Only understanding of structural and dynamical regularities of this unity can lead us to both understanding of its particular components (psychological functions) and realizing the sense of human existence and ways of its optimization. This integrity and indissoluble unity of human psychic creates personality.

Personality is a form of human psychic existence, which is the integrity capable of self-development, self-defining, conscious subject-oriented activity and self-regulation and has his/her unique inner world.

L. I. Bozhovych defines personality as "such a level of human development that allows controlling both the circumstances of his/her life and him/herself" [38, 228]. In different approaches it is always emphasized of self-regulation and self-development quality as a fundamental property of personality.

Let us comment on our definition. It emphasizes the main: the nature of human psychic is personal. The highest level of the being development known to us has reflection that is why it is able to reflect the rest of the existence and itself, it is embodied (embodied) and becomes an actual form of particular human existence. One can say vice versa: human life in the world is an actual way (form) of the highest psychic existence. We cannot find higher existence forms of the psychic highest level in the world except for personality. Surely, it is possible to say that subjects and phenomena of culture are a different, specifically transformed form of their existence. That is true, but they are personality's embodiment. Subjectification, i.e. additional

transformation of psychic (ideal) into a subject (material) is made by personalities, who leave all the uniqueness of the specific personality – the author – in that subject.

Personality character of human psychic nature means, on the other hand, that any particular psychic process has a very complicated structure. It has its own mechanisms and features but at the same time it reflects all the integrity of personality. That is why, when psychic phenomenon is studied in isolation (thinking, emotions, memory etc.), only special and artificial abstraction allows the researcher to make “pure” conclusion about it. In fact it always involves thinking of a definite human, his/her emotions or any other phenomena. This influence of integrity (its projection) on the definite phenomenon is not something trivial or unimportant. If we speak of thinking its properties are defined not only by peculiarities of intellectual sphere: motives of activity, aims, values, indications, permanent and temporary emotional states, even somatic health, all this defines functioning of any psychic function. Taking into consideration this position in the branch of practical psychology turns out to be especially important.

Personality essential features

Personality has such essential (key) features: **integrity, uniqueness, activity, expression, openness, self-development and self-regulation**. Let us study them thoroughly because these features are complicated and contradictory but their understanding is necessary for personality psychology.

Integrity. It goes without saying that personality is a creation that consists of separate psychic phenomena (processes, states, characteristics). But at the same time, it is never just a sum of these phenomena, since personality cannot be understood through the logic of “comprehension summation” of its separate elements. Personality integrity, in fact, is not defined only by its elements. Moreover, every part never exists separately and independently, it is a carrier of personality, as well as its reflection. It is necessary to quote C. G. Jung who said that integrity never fitted within the limits of consciousness, as well as within any other psychic function. “Integrity does not have measurable fluidity, it is more ancient, and at the same time younger than consciousness and encompasses it in time and space” Personality lives, develops and forms only as one whole as integrity. In this live

integrity motion the interconnections between separate elements are changed, and the elements are changed themselves. But these changes are secondary and tertiary in comparison with the changes of the integrity – personality. They appear as a result of a definite personality live motion and facilitate further integral motion. This unique ability of personality as integrity to reflect itself in each separate trait deals not just with psychic features. And that is why we can easily recognize a person even by his/her physical peculiarities, as they are peculiarities of this definite personality and comprise the whole “personality” in some mysterious way. To be sure it is correct, let us see what a famous Russian philosopher O. F. Losev said: «Observing a very familiar countenance of a person you know for a long time, you certainly see not just face as something independent, not just as you perceive, say, a geometrical figure. You certainly see something inner in it but it is shown only through the external form and does not hinder your direct observation. So personality is always an exposure... Human personality is impossible without his/her body, surely the body which shows a soul... How can I know a human soul if not with the help of his/her body... The body is always a manifestation of soul, so, in some sense, it is the soul itself... Only through the body we can judge soul” Then the philosopher proves the manifestation of the whole personality through facial expression, intonation, motion in the same bright, easy and persuasive way: “Sometimes I am scared to look at a new human face and it is horrible to gaze at his/her handwriting: his/her faith, past and future appears completely, implacably and inevitably”

Thus, personality integrity specifically includes all structural and dynamical expressions of human life. It is stipulated not by the sum of definite elements, but by integrated unity of three sources of human existence – biological, social and spiritual. This complicated active integration determines the fact that stating integrity as an attributive personality feature turns out to be insufficient for its absolute understanding. Yes, personality is complete, but every particular human has one’s own integrity, in some way similar to others; but in some way absolutely different. Thus, another fundamental feature of personality is revealed – its **uniqueness (individual originality)**. Some psychologists consider the problem of uniqueness in the context of its contradictory unity of typical and individual in personality. In fact this contradiction is complicated artificially in some way. It is typical that

there is personality in front of us (in simple words, it corresponds to the given definition); it has all given fundamental features and all elements. So what is personality uniqueness? What is its nature? Famous personologist G. O. Allport said that “outstanding human feature is individuality. Each person is a unique creation of natural power. It will never be and has never been exactly the same one” His definition of personality is a reflection of the fact that uniqueness phenomenon is central for the author. “Personality, says Allport, is a dynamical organization inside individual of those psychophysical systems which determine its appropriate behavior and its thinking” The integral structure uniqueness of every human personality is stipulated by two main factors: *firstly* by the peculiarity of dynamical interaction of three main personality sources (biological, social, spiritual), *secondly* by constant personality self-movement, self-development during which there are changes in the individual pattern of personality manifestation that gets more peculiar and complete form. Meanwhile, personality is always incomplete, open to new changes Incompleteness is an important personality parameter, which is typical both at the beginning of life and at its concluding phase.

Let us have a look at the mentioned factors. What is the main peculiarity of these three personality sources (three actual origins) interaction? This question is usually considered as correlation of biological and social parts in personality and his/her development. Partial structure and artificiality of such view is obvious now, but one should know how it was solved.

Some scientists considered that the main factor of personality existence and development is the factor of biological heredity (biology-based, biogenetical conceptions). Basing on such beliefs, they discovered ideas about existence and personality psychological structure. Thus the theory of recapitulation emerged (St. Hall, Hatchinson etc.); according to it a newborn child is considered to gradually reproduce all phases of the humanity historical development: pastoral, agricultural, trading and industrial phases. Only after that a human enters the current life. Through a definite period of development, a child lives reproducing a definite historical period. It is expressed in child’s aptitudes, interests, strivings and actions.

We should remind that in “hormic psychology” (W. McDougall), in psychoanalysis (S. Freud), “personality” is considered to be an ensemble

of irrational unconscious biological inclinations. Behaviorism puts the problem of personality aside, as there is no place for it in the mechanical scheme of “stimulus-reaction”. With the exception of S. Hall’s theory and J. Watson’s behaviorism theory, biogenetical trend, on the whole, duly emphasizes an important significance of biological determinants for personality. On the other hand, these theories either exclude the influence of social factors on personality existence and development or describe them as negative pressure which a human has to handle during the whole life (S. Freud). In this case a particular unique personality nature emerges in the clash of biological and social factors (it is shown best in W. McDougall’s ideas: the instinct that faces resistance of social environment on the way of its realization, transforms to feeling, which is purely a personal feature). In fact, an interaction of social and biological determinants does not only mean a conflict; it is far more complicated and richer in content.

Opposite, sociogenetical ideas were formed by scientists, who considered that social factors play a domineering role in human life and development. These ideas are most vividly expressed in the so called “tabula rasa” theory, the essence of which is that no inborn factors play role in personality formation and existence, everything in it (configuration of integrity, typical and individual aspects) is stipulated only by the influence of social conditions. Let us mention again that on the whole sociogenetical theories capture the great importance of social environment for the life of personality correctly. But their lopsided attitude and the statement that social must suppress biological, is a weak point.

An interesting phenomenon in studying personality psychology is that there are many current ideas, which do not pay attention to biological processes in their theoretical construct at all (existential psychology, humanistic psychology etc.). But paradoxically in the branch of psychological practice, in which these concepts are very successful nowadays, psychophysical and biological personality parameters in general are considered to be preeminent (C. Roger’s “real self”).

Inability to solve the riddle of personality integrity and uniqueness is caused as one can see not by the fact that biological and social basis is not taken into account, but by the fact that there exists a tendency to emphasize some of the sources at the expense of others. In fact,

biological, social, and spiritual do not suppress each other, but interact in a complicated and fruitful way, creating a unique “miracle” (O. F. Losev’s term), i.e. human personality.

If psychology wants to explain personality phenomenon in the world, it should be neither a “natural” science nor a “social” one. It should be reminded that since ancient times the word “psychology” has meant “knowledge of soul”, so it should be dealing with it without distracting to other accompanying factors, however important.

“A child is born as a purely biological creature, an individual”. This O. M. Leontyev’s saying has fascinated psychologists and it has become a kind of a starting point. But a human is born as a human child. And it means not only that he or she, as an organism, has all biological features (genotype, potential and actual anatomy of organs, physiological processes, morphology, biochemistry), that allow this human to be born as personality in the process of their genotype-determined functioning. In fact it is not enough. A unique complication of human biological organization causes the fact that immediately after finishing morphophysiological processes of body formation, an individual as a system goes into a special inner state. It is a state of readiness to become personality. The complex and nuance character of connections inside a body turns out to be extremely strong and flexible. Even some morphological or psychosensorial anomalies do not interfere much with the individual’s way to personality (brilliant works and experience of our scientists Meshcheryakov and Sokolyanskiy proved that even deaf, blind and mute children could become full-value personalities if they go through specialized education). This mysterious but obligatory state for a human is what we call spirituality: this is the beginning of personality’s inner world (consciousness).

So, let us sum up: *biological organization of a human individual not only provides natural potential abilities of body development, but also creates special state of psychic readiness for forming personality, human inner world, his or her spirituality.* That is why an individual is unique and integral even before the birth, he/she has spirituality (state of readiness for personalized way of existence). At the same time personality is not determined only biologically. We should not overlook the fact that biological part of personality is a product, result and embodiment of human activity of two loving social creatures – personalities. So it may actually mean social (and spiritual!) nature of

personality's biological basis... And a continuous flow of transformations of these attributive determinants of human life – biological, social, spiritual one into another.

At the same time, human ability to learn, i.e. adopt and appropriate cultural and historical experience, is also a very important attribute of personality existence, though fundamentally different in nature. So antonymy of biological and social is evidently artificially imposed.

In fact, at the very beginning of life the biological domineers in terms of motivation, i.e. activity of a newborn is greatly caused by the action of instinctive motivational factors, and S. Freud was absolutely right about it. But here, at the very beginning, these instinctive intentions act not just a simple complicated way, but indirectly through a specific state of the body system as an embryo of the inner world. S. Freud did not know that and did not come to it that is why his theory is a concept of a neurotic personality, according to appropriate L. S. Vygotsky's definition. Psychology does not know much about how instinctive needs are mediated by a specific spiritual state of the body system and what this state is like. But one thing is clear: this mediation opens a human child to a very special meeting with the social environment. The meeting is very different from similar contacts of higher-order animals and it concerns not only the absence or undevelopment of some morphophysiological inclinations (remind experiments with deaf, blind and mute children).

The world of the social does not oppose a human at all, as it is considered by some theoreticians. It embraces and invites. S. L. Rubinstein once mentioned quite carefully that human not only resists the world, but is also situated inside it, is enclosed in it. And in such existence, he or she is an indispensable part of the world. Existential psychology pays special attention to it: for it personality is "existence-of-the-person-in-the-world". However the following statement about human "insertion" into the world was rightly criticized by Rubinstein: a person is not inserted into the world; he or she is its part, the part, which fundamentally reflects the whole world, including the one that is not actually present at the moment. A human becomes such a person due to the meeting of a human individual and social world. The latter exists in three main forms – other people, relations between people and cultural things as a special way of objectification – realization of other people's inner world (spirituality). Activity (mainly biological at first) mediated

by a spiritual state, makes human manifest himself or herself and at the same time appropriate the social environment, transforming it to one's ideal (exteriorization – interiorization). Basically complicated unity (organism – state) that exists as a potential (what may happen), becomes more clear and distinct: human real inner world emerges – his or her Ego. This is a realized world of thoughts, desires, inclinations, values, dreams. This is personality. It is not divided into separate parts – biological, social, and spiritual. It is integral and unique. Now on the contrary, its biology (body) can be isolated (“I am not a body, but I have got one”), like the ideal is separated (I am not a dream or desire, but I have got dreams and desires).

However the emergence of the unique does not mean breaking off “relations” between it and material (body). A new complicated form of relations appears called combination. A body (biological) besides being personality attribute (carrier) also retains a big deal of independence – it keeps existing according to the rules of nature (biology). It is relatively independent, because its contact with the ideal is a necessity and a way of existence: it changes the ideal, but it is also changed under the influence of the latter. The same happens with the ideal. Combination is a contradictory, internally conflictive unity of two independent and self-sufficient sources that, however, cannot exist without each other. That is why personality existence is a real drama, as L. S. Vygotsky has vividly stated. This complex of material biological and ideal stipulates personality integrity and uniqueness. These two central features together produce a peculiar thing, called a personality form. In psychology forming is traditionally considered to be a group of means of social influence on individual in order to create in him (her) a system of certain socially positive features and characteristics. However the concept of forming cannot be explained only with this understanding. L. I. Antsiferova states that forming means “a process of creating a special type of relations inside an integral psychological personality organization under the influence of different factors” . In the course of development personality gains a certain form, i.e. a way of organization. The form covers both inner world of personality and system of its external manifestations. The form is a direct manifestation of personality's integrity and uniqueness. It provides with a plastic and flexible stability of personality due to the dynamics of interrelationship between the structural units. As a form is manifestation it helps us study

a particular personality. Forming is a process not limited by time (it is limited only by physical death of an individual, though even after it we can discover its unknown aspects, features and properties in personality for a long time; personality even after the death of body can be finishing its formation). Constant, fluent development of the form is a way of personality existence.

We can single out the following personality development levels (as a “dimensional”, “laid-out integrity”):

On the first level there is no reflection of one’s own inner world, which is only in the process of formation, creation. On this level personal features are created in the process of handling difficulties and reaching personal goals;

On the second level of the development personality forms his/her own surrounding, foresees results and plans events, chooses friends etc.;

On the third level personality becomes a subject of his/her own life path that he or she chooses himself/herself. Another feature of this level is that personality becomes a subject of his/her own inner world development, forms his/her own Ego. It is on this level that uniqueness becomes the most important feature.

The next fundamental personality feature is its **activity**. In native psychology activity is considered to be antithesis to reactivity (reaction is an action/behavior/reply to irritation). Certainly, the reactive behavior principle, in this sense, is preserved in a human during the whole life; at least because the organism acts according to this principal. (Remember, behavior reactivity is a leading principle of behavioral approaches). But personality is different due to the fact that with a reactive behavior, there is also domineering active behavior, the one that is caused by one’s own realized aims and motives. This peculiarity is marked in different theoretical approaches. For example, S. Freud speaks of “the reality principle” in the behavior contrary to “the pleasure principle”. The latter means behavior that emerges as a reaction to instinctive need, when neither outer, nor inner circumstances are taken into account (L. S. Vygotsky calls such behavior as “behavior beyond personality”). Behavior according to the “reality principle” is conscious and thought out; this is behavior on the basis of Ego intention. In order to emphasize personality’s ability to determine own behavior A. Adler uses the term “creative Ego”. Adler considers every person to be able to act differently under the influence of outer or inner factors, including

stereotypes and habits (reactivity), but not only that... Personality is distinguished by having special component – “creative Ego” that in the most responsible moments of life is able to create exclusively own aims and to subordinate behavior activity to them. According to Adler that is the key feature of true personality. In a native psychology personality activity (in this sense) is considered within the terminology of “arbitrariness – involuntariness”. Here an important contradiction is seen: on the one hand, personality is characterized by controlled, determined, conditioned behavior. In other words behavior is limited (by aim, situation, tastes, and instincts – in this case that is not important). On the other hand, according to E. V. Ilyenkov: “A person is characterized by free action, i.e. the one that is done consciously, that is coordinated only with universal overall aim of human race” . This contradiction is solved by L. I. Bozhovich in the research of main development phases of volitional actions in ontogenesis. At first arbitrary behavior is formed due to the “natural” need which directly encourages a child to overcome obstacles on the way to its satisfaction. According to E. Kretschmer this is a “hypobulical stage” of arbitrariness formation. It is typical to small children and people suffering from disorder of higher psychic functions. On the next phase of personality development a human begins to use intellectual plans of actions. He or she estimates, evaluates, imagines the results of the action. Eventually, the decision is made, own aims are set, intentions are formed. So, aims and intentions (K. Levin) are psychic formations, which emerge as a result of an encounter of affect and intellect. This is the second phase of volitional sphere development according to Bozhovich. Behavior is performed due to conscious regulation of motivational sphere by a person and the most important motive is determined with the help of intellectual operations.

According to L. I. Bozhovich the third period emerges as a result of interiorisation of means of behavior organization and of other higher psychological systems formation, which include additional motivational powers able to encourage a person to act directly, not involving conscious regulation. On this phase behavior becomes involuntary. For instance, a person may rapidly start to defend another one or risking his/her life to defend his/her tastes. This behavior is called “*post-volitional*” by L. I. Bozhovich. It is a result of inner personal structures interaction in every situation, the situation and system of all human

values and senses, supported by a definite person. We can see “spiral” development: behavior is not like to be regulated, but it corresponds to the humanity principles common to the mankind. Thus, personality development (activity) “expands” personality to reach spiritual treasures of civilization.

An essential personality feature is his/her **ability to express** own inner sense. It means a creative personality essence and development.

“Personality, if it exists, O. F. Losev emphasizes, is considered to be always and invariably influencing and acting”. Distinct, i.e. personal, existence according to Losev is always a synthesis of two aspects of being, i.e. inner and outer. Outer being of personality is its appearance, face, what is perceived by others. Inner is the essence, something sensible, something presumable. We perceive personality, but in this act we include and take into account the “hidden” essence as well that is expressed from the deepness. “The term “expression” points to certain active direction of inner to outer, to some active self-transformation of inner into outer” When a personal being is distinct, that means, that personality has inner and outer sides, they are characterized by continuous dynamical interflow, and inner dominates in this case (if outer dominates, we will see not personality, but a set of social roles, a functioner or a “small screw”). Expressing activity of human inner world causes live movement of personality in which it faces social reality. Social behavior is build as adoption and playing a big number of social roles. The so called a role layer of personality structure is created. Role behavior for example, professional one, may be quite strict and rigid, it may suppress distinctiveness. Then personality loses its uniqueness, it devolutions. Development means that distinctiveness “penetrates” all layers of social roles and personality, its essence is reflected on behavior and on products of activity. Development of expressiveness, i.e. embodiment of personality is a crucial pedagogical problem. As O. S. Arsenyev has persuasively showed a pedagogical creativity development goals (expression, objectification) and traditional tasks of studying and education are antonymic. Pedagogical system, as a reflection of the state system, aims at first to adopt children to the given social life conditions. This happens because of distinctiveness oppression (the layer of social roles oppresses distinctiveness). This provides child’s natural adaptation to the social reality, but at the same time the creative source is blocked. The solution of this problem,

development of children and grown-up creativity keeps being a global problem of current education in the world.

There is a serious question of personality expression spheres. A present world person can be realized in industrial sphere, creative or scientific activity, in communication system. A question by choosing the sphere of realizing itself personality is also a problem of education and training. In theoretical psychology there exists V. V. Davydov's original hypothesis about a connecting development of different aspects of human consciousness. The subject's choice of the sphere of realization (fulfilment) is defined, according to this hypothesis, with the help of special psychological mechanism, which lies in personality's ability to choose the object of one's own activity. For example, while listening to a musical composition (an absolutely creative act) different personality "sensible powers" may be expressed, depending on what activity subject of musical composition makes the subject of perception: educational (when he learns something by the etalon), cognitive (if, let us say, an art critic is listening), moral (if the subject of perception is an educational potential of composition), utilitarian (perceiving just for fun or pleasure). Davydov's hypothesis, as well as P. Tulviste's additional concept of mental processes heterogeneity, is absolutely prognostic and interesting. But we should admit that even in case they are approved, the question about reasons of this type of objectification remains. It is not possible to be bound only to education, but organismic (individual and typological) features of a human must be taken into account, because they have strong influence on its inclination to a certain activity.

The next essential feature of personality is its fundamental **incompleteness, openness**.

M. M. Bakhtin wrote: "... a living human being cannot be turned into a voiceless object of some absentee, complete cognitive process. In a human being there is always something that only he himself can reveal, in a free act of self-consciousness and word, something that does not subject to an external absentee definition" What is at issue is incompleteness of human "inner" personality.

In the state of real personal activity, "on the threshold" of a real life deed, personality is always unpredictable because no one (even human itself) knows precisely real abilities, deepness ("higher points" – as L. S. Vygotsky would say) of personality's nature. Dostoevsky has reasons for rejecting psychology: in his times (as well as in ours)

scientific psychology is only on its way to the real cognition of personality content basis. Spirituality that in the form of an initial state determines personality as a possibility, further in life is strengthened and developed raising unknown layers of nature and making a person really incomprehensible and infinite in its formation that can never be complete. Though incompleteness is still unknown it is a very important personality feature and it is absolutely necessary to take it into consideration.

Ability to **self-regulate** behavior is another essential personality feature. It is known that for a long time in ontogenetic development the balance of psychological processes has been reached with the help of unconscious mechanisms of the so called basal emotional regulation. These mechanisms function independently from human desire and the sense of their functioning is to provide psychologically comfortable and stable state of inner world. They function during the whole human life, but in the course of life complication (that is a direct result of development and socialization) their action turns out to be insufficient – living conditions become too complicated and ambiguous. That is why there happens the formation of fundamentally new mechanisms at personality, which are regulated consciously by human. The first of all known mechanisms is the mechanism of volitional behavioral regulation. In case of a struggle between different, and often opposite, motives, volitional effort provides a choice and a non-conflicting further living movement. This mechanism development is a real and essential personality's achievement. However it turns out that it can only partially make the state of uncertainty and resistance easier. It is proved with the help of experiments, that inner opposition of motives does not stop at once after volitional act and the state of psychological comfort, as a rule, does not emerge (it is vividly described by the theory of cognitive dissonance). Tension and inner conflict accompany functioning of the given mechanism all the time. Then why, there exist lots of situations, when tension decreases and personality turns out to be self-regulated. In fact, such situations prevail; otherwise we all would be neurotics. It may happen because self-regulation is provided by other complicated and secret mechanisms. Some of them were researched by B. W. Zeigarnik The basis of these mechanisms is a particular experience that is considered by the author to be an activity (living) to create other living senses. Engaging additional senses is made with the help of

awareness extension and new activity contexts learning. This causes not worsening and suppressing a conflict, but harmonization of intentions sphere. A mechanism functioning at this time is, according to Zeigarnik, “reflexive alienation of a negative sense and including the action to a wider sense context” So we see that the process of self-regulation presupposes not just volitional effort but reconstruction of meanings, their awareness being the condition of it. New senses are made only during special experiences. It is seen, how three lines of personality formation are crossed in this point, and they were outlined by us in the previous analysis (randomness, integration, experiences). As a result what is called a mechanism of sense binding happens, when inner connection with personality’s values sphere is established and the content that was neutral transforms into emotionally loaded sense. The result of this work is emerging of new intentions and harmonizing of personality’s inner world. The most important conditions of the sense binding mechanism functioning is considered by B. W. Zeigarnik to be “developed imagination, possession of wide time perspective, presence of hierarchic sense sphere” Thus, the given mechanism can exist only in integrated, mature personality, as in such form the process of self-regulation is solely individual and connected to the values and motives system of a given subject, to its perception of the world. Zeigarnik gives a great example of this mechanism action. We mean H. Hesse’s story “Psychologia Balnearia”. The protagonist (a writer) arrived to a health resort in Baden in order to have a rest and then to work thoroughly. But his intentions faced essential obstacles, because his roommate turned out to be an excessively loud and impolite Dutchman. He was always surrounded by a crowd of people. Couple of nights the writer couldn’t sleep. Sensitive to the slightest noise, he had to listen to senseless chattering and laughter of an endless crowd of guests, loud steps in the morning that ruined his sleep. All desperate attempts to have a rest and work in these conditions resulted in complete disappointment. Eventually, the writer started hating his neighbor and his life turned to real hell. Such self-regulation mechanisms as volitional effort and attempts to burst out with negative emotions in fantasies turned out to be insufficient. Then he makes an absolutely paradoxical decision – to love the Dutchman. A masterful description of a lasting process of a new sense creating and an emergence of a new type of attitude to the situation is full of dramatism and includes all the elements of this

process: destruction of aggressive feelings and setting a task to change them, search for the value of their transformation and addressing to the commandment from Gospel “Love your neighbor as yourself”, giving a distinct form to this value through positive emotional saturation of the Dutchman’s image with the help of the writer’s professional means (the Dutchman becomes a protagonist of a literary work created at night). A difficult creative process resulted, as the author writes, with “a full victory over the Dutchman”. He no longer caused those painful feelings that prevented the writer from having a rest and working. So the main character managed cope with the situation due to the self-regulation mechanism i.e. sense binding

We have cited this example in order to pay attention to the fact that higher and most complicated self-regulation mechanisms of behavior can be provided only by a wholly integrated personality. So we can outline such gradual phases of self-regulation forming in the system of personality integration:

- *basal emotional self-regulation;*
- *volitional self-regulation;*
- *self-regulation of senses and values.*

Let us repeat again: previous links do not disappear in the process of forming, they become auxiliary and secondary ones, but they remain. To some extent it is correct to say that domineering of certain self-regulation mechanisms should be regarded as personality development level index of integration processes.

Now the problem of sense emerges absolutely naturally. On a certain stage of its development a person faces a new experience, i.e. suffering from inner emptiness and insufficiency of life sense. That is the so called existential vacuum. Strangely enough the appearance of this feeling has a very positive meaning for a psychologist as a human has a desire to find the sense of life. V. Frankl called this desire a human fundamental motivational strength. We need to find sense almost in everything: in events, in other people’s behavior, personal feelings. There also exists a concept of higher, living or existential sense, which personality wants to attach to human life: suffering, death, love and other terminal values. V. Frankl wrote: “Inclination to find sense is the basic power in human life. This sense is unique and particular for every human and may be done just by him or her; only then it becomes meaningful that a will satisfies human striving for sense” Sense

revelation means personality's revelation to outer world. It is a very important, cardinal and breaking moment of the human existence: a human is no longer enclosed inside his/her inner Self, inside his/her routine situation of interests – he/she goes beyond a particular situation and becomes a human of the universe. Here we can see, that the lines of integration and interrelations with the world cross each other, the world stops being “opposite” to the human, and vice versa, the human finds himself/herself inside the world, is “embraced” by it and becomes related to it.

V. Frankl's indirect dialog with A. Maslow and C. Rogers concerning the most important thing in life and personality development – sense or self-actualization – is of great interest. V. Frankl proves with arguments that self-actualization (as human's longing for becoming what he/she can become) is just a moment, aspect of human inclination to life sense, and so the central direction of personality development is sense revelation. At the same time, a total majority of modern theoretic scientists of personality psychology support Maslow and Rogers' ideas, considering that self-actualization is the main line of personality development. At the same time attention is not paid to the fact that these terms: “self-development”, “self-actualization”, “self-realization” are at the root of orthodox Jung's psychoanalysis. All of them are synonyms of Jung's “individuation”, as “self-actualization” in fact does not mean “actualize oneself”. But it means “to actualize selfness”, i.e. factual sub-, and then superconscious basis of human personality. We have already seen that similar ideas belong to the concept of personality “unfolding”. No doubt they are nice, pleasant and well-formed theories, but unfortunately they are not scientifically grounded. They are rather philosophical and cultural constructions. Nobody is right in Frankl's discussion with Rogers and Maslow. As they search for something central and essential not in the studied object (personality), but in their ideas about the object. But these are completely different things. If we speak of personality, who needs to be researched, i.e. about a particular living human, then his/her whole life is central to him/her, and everything in it is primary, dominant and essential: from a conflict in the office to the existential problems of life. That is why we think that a scientific approach to the problems of personality development must reflect adequately this process, but not invent it. It seems to us that in this particular formulation the suggested logics, perhaps is not as

attractive and well-formed but it is closer to real human life. At the same time, we cannot neglect or hide an essential interest to self-actualization theory. The logic of an integrated approach is important. No one argues that, let us say, the process of self-actualization, or forming Ego-conception, or search of life sense are very important moments of personality life. But they are only moments and that is the point! It is one thing to study personality development as an integrated process that goes on separate directions, and see important and essential moments in this process. And it is a completely different thing to single out artificially any moment, make it the central one and say that it makes the whole personality and its development is the development of this structure only, taking into account its influence on the others.

4.6. Personality and Its Structure

Personality is a concrete human individual with individually expressed original volitional, physical, emotional and mental characteristics. Personality appeared and developed in the process of social and historical development of humanity, in the process of work. Personality belonging to a certain society and system of the social relations determines its psychological and social essence. Personality is a social being, object of cognition, active participant of the social development. The typical personality features are possessing consciousness, performing social roles, socially beneficial attitude of its activity.

One of the brightest personality descriptions is its individuality, that means the unique combination of such psychological human peculiarities, as character, temperament, peculiarities of the psychic processes (perception, memory, thinking, speech, senses, will), peculiarities of its motivation sphere and specific attitudes.

Personality is always related to the concrete historical development, it is closely connected with those social-economic relations, to which it belongs and which it is involved into. The study of personality as such is a historic research of the personality formation process under the certain contemporary social conditions and social system.

There are different views on the **structure of personality**. Some scientists think, that it is expedient to consider only personality **psychological** components (cognitive, emotional, volitional ones and

the attitude), but others distinguish the biological aspects (typological peculiarities of the nervous system, age changes in the organism and sex), which cannot be ignored in the personality upbringing process. However, it is impossible to oppose biological and social aspects of personality. The biological aspects and features exist in the personality structure as its socially conditioned elements. The biological and social aspects form a unity and they interact in the personality structure.

Human is a biological being, but in the process of historical development under the influence of social conditions the biological side has changed and acquired the unique specific human peculiarities.

In the structure of personality one can distinguish **typical** and **individual** qualities. Typical qualities are the most comprehensive characteristics. It is typical of every person and it characterizes personality in general: its consciousness, activity, mental and emotional and volitional displays, etc., that is everything which makes people alike. Individual is the very notion which characterizes each particular person: his or her physical and psychological peculiarities, orientation, abilities, etc., ie all the aspects which make people different.

Psychologist K. Platonov determines four sub-structures in the personality structure.

The first substructure is the **personality attitude**: moral qualities, orientations, relationships with others. It is determined by person's social being.

The second substructure is that of **experience** (knowledge, skills, habits). Experience is acquired in the process of teaching and education. The social factor is the leading factor in experience acquisition.

The third substructure is that of **reflection forms**. It covers the individual peculiarities of psychic processes, that are formed during the social life and specifically manifest themselves in human cognitive, emotional and volitional activity.

The fourth substructure involves **biologically conditioned personality psychic functions**. It covers typological personality properties, sex and age peculiarities and their pathological changes, that largely depend on physiological and morphological peculiarities of the brain.

Psychological personality structure is very complex and multi-faced. Personality cognitive, emotional and volitional activity, its needs, interests, ideals and persuasions, self-consciousness etc., are components of

personality spiritual life, which are in complex interaction and their unity forms individual's «self», which manages all aspects of the inner life and its display in activity and relations with others.

4.7. Personality Activity and Its Sources

Activity of living beings is one of the basic and necessary displays of life, internal impellent force, directed on the satisfaction of the organism needs. However, human activity differs from animal activity greatly. Animal activity is displaying of instinctive biological needs of the organism, while conscious purposeful aspirations are leading factors in human activity.

Human activity and forms of its displaying have been developed historically and they are of socio-directed character.

As for the sources of personality activity there existed different views in psychology.

For the first time the question of personality activity was raised by Austrian psychiatrist S. Freud, the founder of the theory and practice of the psycho-analysis. Basic claims of this theory state, that the source of human activity is instinctive motives, which are inborn and which are hereditary inherited. This is a world of instincts, biological and physiological drives, subconscious impulses, the nature of which «is unknown». The basic statement of his teaching is acknowledgement of biological priority in human nature. The positive element in S. Freud's teaching may be his appeal to the world of subconscious in human psyche, which plays an essential role in one's activity. Neofreudians, using the basic postulates of S. Freud about the subconscious, worked in the direction of limitation of sexual drives studying human psyche and in their searches of new driving forces of the human behaviour. Neofreudism proceeds from the acknowledgement of the decisive role of the environment and mechanisms of social character. In subconscious aspect the place of unrealized sexual drives is taken by the aspiration to authority as a result of realizing one's inferiority (A. Adler), impossibility to attain harmony with society social structure and the sense of solitude resulted from it (E. Fromm), etc.

Elaborating the personality activity problem, the Ukrainian psychology proceeds from the acknowledgement of the fact that the source of personality activity is its organic and spiritual needs for food, clothes, knowledge and labour.

Need is a necessity, which slows human dependence on certain conditions, essential for one's life and activity. Needs always reflect steady vitally important mutual dependence of the organism and environment. Human needs develop in activity together with the development of the social conditions of life, production, scientific and technical progress. The process of one's need satisfaction contributes to its development and reappearance of new needs, which are inevitably produced by different spheres of people's social life and their activity. The higher level of civilization of the society, economic and spiritual development, the rich and more various its needs are. Internal motives to actions are the motives, resulting from the personality realization of its needs and they become apparent in concrete aspirations for their satisfaction. **Motive** is a real incentive, which forces human to act in a certain life situation and under certain conditions.

Interests are widespread motives of human activity. **Interest** is a steady, selective, emotionally coloured personality aspiration for objects of vital importance. Interests arise on the basis of needs, but they do not come to them. Need expresses necessity, and interest is always connected with personal interest in object, with the intention to learn more about it and to master it. Interest can appear in liking and affection for a person, in keenness of a certain activity, literature, sport, science, etc.

Persuasions are strict behaviour regulators. Persuasions are a system of personality motives, that makes it act according to its own views and principles. The basis of persuasions is knowledge, which is veritable and unquestionable for person, in which he or she does not doubt. The peculiarity of persuasions consists in the fact that they unite personality knowledge and senses. Persuasions are there, where there are suffering and pangs of conscience, when principles in actions and acts are violated. Persuasions force as a motive of behaviour is accurately characterized in the famous utterance, where it is compared to chains, which man can not tear, without tearing his\her heart. Personality persuasions become apparent in different spheres of one's life and activity and according to it, they are subdivided into moral, intellectual, aesthetic and others.

Persuasions become a powerful driving force on condition that the actions, which are caused by these persuasions, become habitual. K. Ushynskyi called a kind habit «moral capital», that the man invests

into one's nervous system. The «capital» habit increases because of habit and gives human the opportunity to use one's precious power more efficiently – the power of conscious will, without expending of consciousness and will on struggling with difficulties that have been already overcome.

Ideal is an important realized motive. **Ideal** is an image of a real man or model created by personality, by which it is guided in life for some time and which determines a program of his/her self-perfection for the future. Human ideals are formed under the influence of the social life conditions, in the process of studies and education.

The role of personality motives can be performed by orientations. **Orientation** is unrealized by personality readiness for activity, whereby one can satisfy some need. Orientation towards different life facts can reveal in standardized judgments, uncritically learned by human while communicating with other people, in particular, in outlining vitally important things. That is why, personality can see everything he/she wants to see in objects and life phenomena, and not that which in reality is. One precepts can be positive, if they are based on trust, affection, approved vox populi, and negative, when they are partial not objective. A special precept form is inner-group suggestion as unrealized group thought.

Personality activity aim always reveals in the realized motives. The object that can satisfy personal needs, appears in one's consciousness as the aim. If personal clearly realizes the aim of life and foresees its practical achievement, then the personal perspective opens up. Perspective makes human actions assured, purposeful, it fills them with energy. Lack of vital perspective or its loss can cause the state of frustration, ie failure of plans, disillusion, hopelessness, despair. Getting into such psychological discomfort, personality loses the ability of objective life facts estimation, expresses aggressiveness and irritation. The state of frustration can be caused by too high self-esteem, when person has expresses an inclination to set too complicated life aims and finally failes to fulfill them. Having adequate self-evaluation individual sets aims, which accord with one's possibilities, and achieves them successfully. Self-esteem can be underestimated, ie caused by person's uncertainty in one's possibilities, and, as a result, such person sets too simple aims. Underestimated self-esteem prevents person to realize his or her psychological potential and it leads to slowing one's

development and in this case some specific features connected with it can appear.

Attitude is the integrated index of the social value of personal orientations. **Personal attitude** is a system of dominating aims and motives of personality activity, which determines his or her self-esteem and social significance. Attitude (together with the world outlook) is the highest regulator of behavior.

Self-consciousness plays an important part in the forming process of personality attitude. **Self-consciousness** is realizing one's attitude to outer world and other people by oneself. It has many different displaying forms. One of them is connected with cognitive aspect of psychic activity and reveals in self-sensing, self-observance, self-observational-learning, self-examination. Self-realizing of changes and processes, that take place in personality, contributes to deeper self-study, objectivity and criticism in their evaluation. Emotional aspects of consciousness are connected with its such displays as self-respect, self-praise, modesty, self-humiliation, self-esteem, one's dignity and others. They reflect person's attitude towards oneself in comparison with other people in the form of some certain feelings. Such displays of consciousness as abstention, self-control, self-discipline, initiative are connected with the volitional aspect of human psychic activity. The basic forms of person's consciousness are closely connected with all aspects of his or her life.

Personality as a social being is formed in the process of up-bringing and education, while working and communicating with other people. At the same time an important role in the formation of personality is performed by inborn peculiarities. The external influences effect personality through one's internal, inborn peculiarities, and experience gained before. That is why to get to know the personality, his or her psychology, one needs to study the certain conditions of personal life and education, environment and peculiarities and person's interaction with it.

4.8. Personality Development and Education

The problem of personality development and education belongs to the aspects of vital importance of social life and it always needs profound scientific substantiation of the factors psychological sense of this process.

In psychological theories two directions can be singled out, which consider the sources of psychic child development differently, – **biological and social** ones. The adherents of the biological direction think, that the hereditary factor is the leading factor which determines all peculiarities of personality development in advance. American scientist E.Thorndike affirms, for example, that all personality spiritual qualities and one's consciousness are the same natural gifts, as the eyes, ears, fingers and other parts of the body. All this is given hereditary to a human being and is embodied in after the conception and birth. American educator Jh.Deue thinks, that the man comes into being even with ready moral qualities, senses and spiritual needs.

The representatives of the theory known as “biogenetic law” (C.Hall, G.Baldwin and others) think, that a child gradually reproduces all the stages of human historical development in one's development after the birth: the cattle-breeding period, arable farming and trade-industrial periods. Only after this person is involved into the contemporary life. Experiencing the certain period, a child lives the very life of that historical period. It displays in person's inclinations, interests, aspirations and actions. The adherents of the “biogenetic law” were for the free children's education as, in their opinion, that was the only education due to which they could be developed really and be involved into the life of the society they lived in.

The second trend of personality development is represented by **the socio-genetic concept**. According to the socio-genetic theories the child's development is determined by the social conditions: child is born and educated in the environment, and it influences child's development as well. The representatives of this trend, as well as of biogenetics, underestimated personality internal activity as a conscious activity subject, one's inborn peculiarities.

At the beginning of the XXth century a methodological **concept of personality development** appeared. Pedagogy stuck to the theory of two development factors: biological, or hereditary, and social. The representatives of this theory find these factors converge, that is the interaction is not always substantiated theoretically, in a proper way, so the problem of driving forces of the psychic development is not solved to some extent.

In the Ukrainian psychology the theory of personality psychic development is based on acknowledgement of the fact that driving

forces of person's development disagree, on the one hand, with needs, which change (become more complicated) constantly in human activity, and, on the other hand, with real (which do not accord with new demands) possibilities of their satisfaction. Overcoming contradictions in one's activity through mastering the appropriate ways of its performing (skills, methods, techniques, knowledge) leads to the development and it is its sense. Education and upbringing plays the leading role in the mastering of the new effective ways of satisfying one's needs. Selection, development and cultivation of needs which have social and personal value are one of the central tasks of personality formation. This process is long, it takes place during person's whole conscious life and is characterized by some peculiarities.

Every age stage of personality development has typical anatomical, physiological and psychological peculiarities and abilities. In this process there are such stages as preschool, primary, middle and senior school ones. And according to these stages peculiarities the instructional and educational activity is planned and performed in kindergartens, nursery schools and schools.

Continuity in teaching and education plays a crucial role in personality formation. Based on everything the child achieved on the previous stage, nurseries, kindergartens and schools prepare the child for learning social experience and knowledge on the next stage of instruction and education. Kindergartens train children in all aspects for studying at school, and senior school – train them for studying at the higher educational establishments and for performing duties being at work.

The peculiarities of age development are not permanent and static within the age framework. They don't change automatically to the peculiarities which are typical of the next development stage.

Personality development is a complicated process, in which the levels of development change constantly. The development of cognitive psychic processes, emotions and senses, will, needs, interests, ideals and persuasions, consciousness and self-consciousness, abilities, temperament and character, skills and habits are in complex interstage interaction. The higher levels originate from the previous stages, but the peculiarities of the previous age stages are revealed on the next stages. In order to contribute to timely foundation and successful development of everything progressive and new in child at all stages of personality

formation, it is essential to be good at child' age physical and spiritual development peculiarities.

While developing personality, we should take into our consideration that the development peculiarities typical of the certain age do not always coincide with the real age. Some children develop ahead of their age, and some are behind the rest. It is sometimes determined by the inborn anatomic and physiological organism peculiarities, but mostly by child's social life and education conditions, which contribute to one's development or slow it down. The task of teachers staff is to detect these causes or support everything that contributes to child's successful development, and to get rid of negative influences on education personality.

The child's imitation of adults plays an important role in personality formation. Children imitate not only positive but negative aspects as well, because they don't have enough experience, and critical attitude towards actions and acts of adults. Imitation is especially typical of preschoolers. At this age children do not show independence in their attitude to acts, behaviour, thoughts, statements of adults and imitate them automatically. With the development of teenagers's personality and the growth of intellect and independence children evaluate the doings and behaviour of adults critically, borrow everything which is better, repudiate and reject everything worse. However, they can imitate negative aspects from adults if positive experience of the surrounding reality does not become dominating in their life and their moral and ethic attitude towards others' acts and self-control are not formed.

The preschool age is the child's preparation period before school and elementary self-service. This period is characterized by considerable changes in child's anatomic physiological and spiritual development, due to which he or she becomes capable of studying at school and getting some knowledge, norms of moral behaviour and performing socially useful labour tasks. This is assisted by the fact that at this age children have significantly developed speech and language skills level, and due to this they have the ability to think and make logical deductions under the guidance of adults. The important aspect of preschoolers' development are their thirst for knowledge, mastering the first behaviour norms in the collective, ability to perform simple tasks (assigned by adults) independently, serve themselves, help others, direct their actions not only to objects that are immediately perceived but also

to the imagined objects and situations. Though at preschool age emotions are still unstable, and will is weak as well, pre-school children express persistency and attentiveness when they are involved into interesting activity. They are capable of performing simple work tasks if the organization is up to the level.

Life and activity of **the senior school age** children are conditioned by their learning activity. In the process of learning their psychic processes (perception and observation, memory and attention, imagination) are developed successfully. These psychic processes acquire purposeful and arbitrary character.

Pupils of the senior school age have more profound understanding and they are capable of analyzing language and speech: a word is realized to be a part of the speech, uttered statements are realized as sentences and a sentence, in its turn, is studied with its constituent parts. This contributes to expanding judgments and reasoning, making logical deductions, learning abstract mathematical and grammatical material, to forming speech culture.

Senior schoolchildren master behaviour regulations in the collective, consider their doings and behaviour not only from the own position, but from the people's point of view as well. They estimate their friends' behaviour critically, and become exacting to them. At senior age such qualities as self-control, persistency, purposefulness, reserve, discipline are developed. The ability to regulate their own behaviour, and subordinate it to school tasks is based on this basis. Senior schoolchildren are involved into labour activity successfully, realize its social sense and significance.

The **middle school** or **teenage age** attracts our attention by its anatomic and physiological changes in the child's organism, connected especially with pubescence. These changes influence the psychic teenager personality development, ones cognitive activity and behaviour, relations in the collective essentially.

Teenagers have higher cognitive activity and mental development, increased inquisitiveness, aspirations to learn the unknown facts, look ahead. The middle age schoolchildren express aspiration for independence noticeably. But this aspiration may be revealed in deviant forms, eg in negative attitude towards tasks, teachers and parents' advice, unmotivated acts and bravado in violating rules of behaviour. This happens when teenager is not involved into the collective life, does

not do socially useful work and not see and experience the results of his or her activity. And teachers and parents do not inspire him or her into such activity, taking into their account the age peculiarities of teenager's personality development.

Teenager's suggestion is reduced, his or her will grows stronger, and the interest in labour activity, increases, relations strengthen in the group, moral senses and aesthetic tastes are developed and become more steady. Ideological orientation, world outlook and personality consciousness of late teens are formed intensively. Activity becomes more purposeful and socially motivated.

In this period special attention should be paid to the new aspects in relations between boys and girls, namely the gender differences and peculiarities in friendship and behaviour of boys and girls are defined, their interest to each other grows. These features of juvenile development need specific attention to organization of teenagers's group and educational activity, friendship and their sexual education especially.

The elder school, or senior youth age is the period of the further personality mental and moral development. Young people concentrate on self-cognition and self-criticism, which can cause negative features origin if the education is not up to the level; they may grow into self-confidence, self-admiration or uncertainty, disbelief. At this age cognitive interests, inclination to certain scientific activity, kind of sport are developed clearly, professional preferences are determined. But these peculiarities are not always strong and stable, if they are not enhanced and strengthened at school by teachers and experienced adults. The age of young people is a forming period of steady friendship and companionship, between boys and girls specifically, developing of volitional qualities, features of character, application of the acquired moral and political positions. Attitude towards projects realization into effect together with other members of the study group is an important factor of the personality moral and mental formation in this period.

Personality development is influenced by the mode of social life, scientific and technical achievements, wealth of information, received from cinema, radio, television, books and newspapers. That is why it is impossible to be restricted solely by school methods of teaching and education of the growing generation.

For last ten years we have faced **the acceleration** of children's physical and mental development. Evidence proved, that maturity comes 2-3 years earlier than it did at the beginning of the XXth century. At the same time, discrepancy appears between mental development and the ability to regulate one's emotions that cause violation of social behaviour norms. Acceleration of personality development causes considerable transformation of the educational and teaching process in essence, methods, children's life organization.

Human activity and behaviour depend not only on the age, but also on the individual peculiarities.

Personality individual peculiarities are inborn and acquired ones during the whole life as for their nature and origin. Inborn features include physical peculiarities, which a child is born with. The typological peculiarities of the nervous system such as its force, balance and mobility, which make the physiological prerequisites of temperament. Inborn individual peculiarities are changed in the education process and under the life conditions. Among the peculiarities acquired in the process of learning, education and activity, the major one is personality orientation, his or her interests, abilities, ideals and persuasions, character traits. Some inborn and acquired individual peculiarities are changed under the influence of education, but most of them are stable, therefore they influence personality activity.

Successful management of personality formation process requires perfect knowledge of child's development psychological peculiarities and its use in teaching and educating processes.

PERSONALITY THEORIES

At present there are many approaches to understanding personality. There are various personality theories in foreign psychology and they pay great attention to completely different aspects of human psychic life. However in every truly scientific and truly psychological concept one can see three main trends: personality integrity, its being unpredictable (resistance to strict determination) and ability to self-movement.

Let us have a look at psychological personality theories.

Sigmund Freud (1856 – 1939) was an author of the most elaborated and logically completed personality theory, by the way, the first in the history of psychology. According to Freud, the main life tendency is a

desire to maximize satisfying one's own instincts, minimizing at the same time punishment and guilt. Instincts are psychic images of body needs, reflected in desires. Any human activity is determined by instincts. Freud suggested two main groups of instincts: instincts of life (libido) and instincts of death (mortido). Sexual and aggressive instincts are primary and causal for many social and psychological phenomena such as wars, art, religion, politics etc.

S. Freud proposed personality structural mode to be the core of the whole psychoanalysis system, which is based upon the so called topographic schema of the psyche that includes three levels: conscious, unconscious and preconscious. Conscious level comprises thoughts, feelings, emotional experiences that a human realizes at a given moment of time. Preconscious area includes all experience that is not being realized at a given moment, but it may easily return to conscious. Unconscious is the deepest and the most essential psychic area that comprises instinctive inclinations, desires, memories, and other material, whose entry into conscious level is accompanied by a sense of danger or anxiety. According to Freud, such non-realized material greatly determines our daily functioning and may be reflected in a masked or symbolic form: dreams, wrong actions, jokes or tongue slips.

Three functional units in personality structure are defined by Freud: Id, Ego and Superego, which are in conflict.

Id is something dark, some storage of activational trends, misunderstood and chaotic, a permanent source of troubles. Id performs a leading role during the whole life. Id continues the behavior that operates on the "pleasure principle". Tension in Id requires ventilation and it is discharged directly, impulsively, and irrationally. S. Freud uses the "reality principle" in behavior in opposition to the "pleasure principle". The latter means behavior that arises in response to instinctive need, when neither external nor internal circumstances are taken into account (L. S. Vygotsky calls such behavior "unmediated"). Behavior on the "reality principle" is realized and reasonable, that is behavior on the Ego intention.

Ego is a component of psychic mechanism, responsible for taking decisions. Ego wants to express and satisfy Id's desire according to restrictions, imposed by the outer world. Ego does not have existence independent of Id, and it absolutely depends on it. Its main role is to be

a mediator between instinctive requirements of the body and conditions of its environment; its highest aim is to maintain life of the body and to see that species are reproduced.

Superego is inner representation of traditional values and ideals of the society. Superego is personality's moral force, it is rather ideal than real. Its main task is to judge what is right or wrong on the basis of moral standards accepted in the society.

Superego includes moral prohibitions, rules, values and ideals of the society. It is formed as a result of identification mechanism with a close adult of the same sex. During the process of children's identification the Oedipus complex is also developed, that is the complex of ambivalent feelings that a person feels to the object of identification. Superego correspondingly consists of two structures – Conscious and Ego-ideal.

Conscious is acquired as a result of parents' punishments. It includes the ability to critical self-esteem, moral prohibitions and feeling guilty if a child does not do what he/she should.

Ego-ideal is a stimulating aspect of Superego. It is formed on the basis of what parents appreciate or highly estimate; it leads an individual to creating high standards for himself. If the aim is reached, it causes a feeling of self-respect and pride. While Id's sphere is completely unconscious, Ego and Superego act on all three levels of consciousness.

Id, Ego, Superego are personality structural elements, but they are also dynamical.

Personality development, according to Freud, goes through several psychosexual stages: oral (sucking, biting, chewing; 0 – 18 months), anal (abstinence or expulsion of feces; 1,5 – 3 years), phallic (masturbation, 3 – 6 years), latent (6 – 12 years) and genital (ability to heterosexual relations; after pubescence – sexual maturation). There can happen fixation, i.e. development delay or abortion on a definite psychosexual phase, or regression, i.e. return to an earlier stage of the development. Different types of character are connected with different stages of the development.

Anxiety is Ego's function and its purpose is to warn a person of approaching a threat that must be faced or avoided. Anxiety gives a person possibility to react in an adaptive way in case of threats. There are three main types of anxiety: *reality anxiety* (tension between Ego and the outer world, emotional response to dangers of the outer world), *neurotic* (anxiety between Id and Ego, anxiety that arises of Ego's fear to

realize what is in Id; this may cause neurosis) and *moral* (anxiety between Ego and Superego, when the reality principle does not fit moral stereotypes; Ego feels it can be punished by Superego).

Personality defense mechanisms protect a human from anxiety that seizes a person. Ego's defense mechanisms are a conscious strategy that is used by an individual to protect from Id's open expression of impulses and Superego's counter pressure. Defense mechanisms have two main features: 1) they operate on unconscious level and are means of self-deception; 2) they distort, reject or falsify reality perception to make anxiety less threatening for a person.

There are such defense mechanisms (specified by S. Freud and his followers):

Repression is "motivated forgetting", expulsion painful memories from consciousness.

Rationalization is a pseudo-explanation, false argumentation due to which irrational behavior looks rational.

Denial is a mechanism when a human does not notice unpleasant facts and phenomena.

Regression is approaching children forms of behavior.

Projection is a mechanism due to which unacceptable actions and inclinations of an individual are attributed to other persons.

Introjection is a mechanism according to which human appropriates another human values and rules as his own.

Identification is Ego's protection from frustration through identification with a more powerful instance than Ego. A person becomes a slave of interjected rules and thus not free.

Intellectualization is separating one's Ego from direct emotional contact with the other person's Ego, considering the other to be an object, i.e. with the help of conceptual models, conceptually and terminologically oriented systems.

Reaction formation is making deliberate actions that protect Ego from realizing its real own experience; the inappropriate impulse is suppressed and then an opposite one appears on a conscious level.

Displacement is discharging accumulated energy on an accessible or safe object, when it is impossible to give vent it on a real object.

Sublimation is a transformation of libido or mortido to creative, socially acceptable activity. This is the only constructive strategy of taking hold of undesirable impulses.

Defense mechanisms, nature of anxiety, psychosexual development, conscious levels, instincts are the main categories with which S. Freud enriched psychological science. His personality theory is integrated, completed, though a bit deterministic. Freud's followers gave more value to personality's ability of self-development and self-movement.

Alfred Adler (1870 – 1937) is a founder of individual psychology. To S. Freud's assumption that human behavior is mainly directed by in-born instincts, A. Adler supposed that human motivation is mostly based on social motives. People are social creatures. They correlate themselves with other people, take part in common social activity, and treat common good higher than egotistical interests, and their lifestyle is mainly social in its character. Besides, A. Adler introduced a uniqueness principle where his main theoretical theses originate from: «If there is no doubt in the necessity of holistic human understanding and learning his/her (indivisible) personality (a view is dictated both by intellect nature and by individual psychological understanding of personality's striving for integration), then the comparative method, that is the main instrument in our work, gives us possibility to formulate a concept of power lines, following which a human reaches supremacy". S. Maddi, conducting a comparative analysis of personality theories, includes A. Adler's position to self-realization model (improvement). Thus, personality in A. Adlers's paradigm is holistic and able to self-movement.

The main personality trend, according to Adler is striving for superiority or perfection (in early works his main emphasis was on the will to power). This is the only fundamental motive that is inborn, but it must be cultivated and developed, as from the birth it is only a tendency, a theoretical possibility, and not a real fact. This striving is universal and present in both the norm and pathology. Superiority as an aim can acquire both negative (destructive) and positive (constructive) character.

Desire for superiority is manifested both on the individual level and on the society level. All people strive for increasing but not decreasing of tension (to heterostasis as opposite to homeostasis). So longing for supremacy is striving for overcoming own drawbacks and fuller realization of the potential. A. Adler considered it to be a powerful impulsive force that is in the basis of human behavior.

Adler developed an idea, that people try to compensate organ inferiority and that these attempts of compensation essentially influence their vital activity. Inferiority feeling is a feeling of one's own inability, weakness that emerges in childhood and later serves as a basis for struggle for superiority. Inferiority feeling begins in childhood because a child experience is dependent on others for a long time, being helpless and requiring parents' care. However inferiority feeling of some people may become excessive. As a result they have an inferiority complex, i.e. exaggerated feeling of one's own weakness.

On the whole, three factors contribute to the development of the inferiority complex: inferiority of organs, excessive care and parental rejection. On the other hand, as a response to inferiority feeling hypercompensation and superiority complex may be developed at a human. This complex is expressed in the tendency to exaggerate one's physical, intellectual and social abilities, exaggerate one's own importance in order to overcome the constant sense of inferiority.

According to Adler, people try to compensate their own inferiority feeling, building their unique lifestyle, within which they want to reach unreal aims, oriented at superiority or perfection. Personality lifestyle is formed in a child during first four-five years of life and it is most distinctively it is displayed in human guidelines and behavior, directed at solution of three main vital tasks: professional, tasks of cooperation and love.

Life style includes a unique combination of features, types of behavior and habits that together define a unique image of individual existence. There are four settings, that correspond to lifestyles: *Ruling or Dominant type* (confident people with low social interest, active, with an attitude of superiority to the outer world), *Getting or Learning type* (without social interest, have low activity, satisfy their needs at the expense of others), *avoiding type* (inactive, without sufficient social interest, their aim is to avoid all problems in life), *socially useful type* (high level of social interest and high level of activity displays true care of others and is interested in communication with them). So lifestyle is a unique configuration of personal features, motives, cognitive styles and ways of interaction with reality, typical for human behavior, providing stability of human behavior.

Social interest is a moving force of personality development. Adler defines it as striving for cooperation with other people to reach common

aims. Social interest has inborn bases, but it completes its formation during education. In Adler's opinion the level of social interest is an indicator of psychic health. Sane, healthy people really take care of others; their desire of superiority is socially positive and takes into consideration other people's welfare. On the contrary, social interest of poorly adapted people is insufficiently displayed. They are egocentric, preoccupied with their personal interests and strive for domination over other people.

Social interest emerges in the relations between a mother and child. That is why the mother should encourage formation of the mature social interest and help in directing it out of the maternal influence. Child's father must avoid two mistakes: emotional alienation and paternal authoritarianism. Father and mother relations also have great influence on social interest formation.

Birth order in the family is the main determinant of the Style of Life.

The firstborn (the eldest child) receives immense love and parental care. But only until the second child is born. Then the elder child's situation looks like that of "a monarch without the throne". Struggle for returning the previous central position in the family is doomed to fail, as the past cannot be brought back. Most eldest children are conservative, strive for power and are prone to leadership.

The only child does not have brothers or sisters to compete with. Being oversensitive to maternal care, child may compete with father. The main peculiarity of this lifestyle is dependence and egocentrism. Child has been under mother's control for a long period of time and expects the same care and protection from others.

The second (middle) child strives to surpass the elder sibling. Due to that his/her development goes faster. The child becomes ambitious, tends to competitiveness. He/she is achievement-oriented.

The last-born child (the youngest) is surrounded by care and attention not only by parents, but also siblings. Elder children have more privileges, that is why the youngest child has a strong sense of inferiority. Such child has strong motivation to surpass elder siblings.

Birth order presupposes presence of certain problems, but not every child is sure to have the described features, rather they are trends that flow out of the position in the family.

Adler's conception of fictional finalism states that expectations but not past experiences play bigger part in motivation. This final aim may

be fictional, i.e. an unreachable ideal, but nevertheless it is a real stimulus and it gives a final explanation of the behavior. Healthy personality may be freed from these fictions and face reality openly, but a neurotic cannot do that.

The concept of creative Self is Adler's biggest achievement as a personologist, the main construct of his theory. It embodies an active principal of human life, the one that makes it meaningful. Every person has possibility to create one's own lifestyle freely. Creative Self gives sense to life: it creates an aim and means how to reach it. Creative Self is human's free will that has the aim of creating self, relations with the world and certain material and spiritual values. Creative Self gives every person uniqueness and integrity.

Thus, Alfred Adler's personality theory describes a person as integrity that is characterized by creativity and social dependence, but human life is interpreted as an active striving to perfection.

Carl Gustav Jung (1875 – 1961) is the author of analytical personality theory. If S. Freud spoke of decisive influence of infantile experiences on personality, Jung turned to childhood of mankind. On the basis of extended material analysis of clinical and experimental researches, ancient myths, tales, customs, rituals of primitive peoples, religious theories, ancient sciences, such as alchemy, astrology, Jung proved the existence of the collective unconscious, that emerged as a result of mankind evolution and is accumulative experience of mankind in the form of archetypes. Archetypes are forms of perception and comprehension of reality. They repeat similar experiences in different generations. A human, that does not realize archetypes, does not give vent to them through consciousness, creates tension that may destroy Ego.

According to Jung, the soul consists of three structures: Ego, personal unconscious and collective unconscious. Ego is the centre of the conscious sphere. It integrates feelings, memories and perceptions, due to which we feel our integrity and permanency. Personal unconscious comprises conflicts and memories that were once realized, but now are suppressed and forgotten. Personal unconscious comprises complexes that are accumulations of emotionally loaded thoughts, feelings and memories, carried by an individual out of personal experience or of ancestral, hereditary experience.

Collective unconscious is a receptacle of latent memory traces of the humanity and even of our human-like ancestors. It reflects thoughts and feelings, common to every human being that are the result of our common emotional past. Collective unconscious consists of the primary psychic images-archetypes. The main archetypes are the Persona, the Anima and the Animus, the Shadow and the Self.

The Persona is our social mask that is the way we act in relations with other people. The Persona marks the amount of roles that we play according to social requirements and expectations.

The Shadow is a dark, animal side of personality. It includes socially unacceptable sexual and aggressive impulses, immoral thoughts and passions. But at the same time it is a source of vital strength, spontaneity and creativity.

The Anima and Animus archetypes reveal the human inborn androgenic nature. The Anima is the feminine image in a man's psyche (feminine archetype of a man). The Animus is the masculine image in a woman's psyche (masculine archetype of a woman). The Anima and the Animus should be expressed in harmony, without breaking the overall balance, in order not to hinder personality development.

The Self is the most important archetype. The Self is the core of personality, around which all other elements are organized. This archetype is displayed in different symbols, the main being the mandala or the magical circle. The Self ensures personality's integrity, balance, stability and wholeness. The process during which the self becomes personality centre is called individuation. This is the way of personality development.

Jung called personality development displayed in bringing conscious and unconscious together, individuation. Individuation is a process of human development as an integrated personality, the movement to freedom that includes development and integration of all structural components of personality. During the individuation process all archetypes reveal themselves in a more complicated way. Layers of personal unconscious that overlap with collective unconscious reduce.

Individuation shows itself as realizing previously unknown needs, strivings, feelings, and their further division into conscious and unconscious parts. Such differentiation of psychic parts gives a person the possibility to perceive the world more subtly and to express oneself. Individuation is based on the assimilation of individual and collective

experience, resulting in the balance and integrity of personality. Eventually a human must become oneself, find the individuality, the core of personality that is equi-distant from conscious and unconscious; we should strive to this perfect centre, to which the nature seems to be directing us.

Among other concepts, offered by C. G. Jung, the most widespread are introversion and extraversion. Every individual can be characterized as being focused on internal or external. The introverts' energy is naturally directed toward their inner world, the extraverts' energy – toward the outer world. Introverts are first of all interested in their own feelings and thoughts, their inner experience. They are prone to deep introspection, they are reserved, search solitude. Extraverts are preoccupied with the outer world of people and things. They tend to be more social and better realize what happens around them. They are talkative, active, make friends easily and are likable. Introversion and extraversion are usually both present in one individual, but they are opposite to one another. One of them is dominating, the other one is subsidiary. Theoretically one must be flexible, able to accept any of the two directions when necessary, and act on the basis of balance without creating fixed reactions.

According to C. G. Jung, there are four fundamental psychological functions: thinking, feeling, perception and intuition. Each function can be performed extrovertly or introvertly.

Thinking is concerned with the truth, its ideas are based on off-personal, logical and objective criteria. With the help of thinking people try to understand the world essence and their own one. Thinking and feeling are rational functions. Feeling as function gives people objective experiences of pleasure, despair, fear, inspiration, pleasure, grief, love etc. Perception and intuition are irrational functions; they are the ways of getting information, in contrast to the ways of making decisions. Perception gives specific facts or representations of the world. Perception is the direct valueless realistic perception of the outer world. Intuition is a way of processing information from the point of view of past experience, future aims and unconscious processes. Intuition is based on the premonition or guesses, catching the essence of life events. Every human has all four psychological functions, but only one of them is dominating, others are deep in the unconscious and play a subsidiary role in human behavior regulation. A developed personality that went

through a long path of individuation uses all psychological functions providing integrated and balanced approach to life.

Thus, C. G. Jung's theory considers personality as the one that strives to integrity and able of self-movement, realizing its archetypes and approaching the Self. This theory is rather exotic and emphasizes the unique integrity of personality with its roots deep in evolution, and its peak on the top of self-realization.

Erich Fromm (1900 – 1980) focused his maximum attention on personality's social determinants. To his mind, human behavior may become clear only in the light of culture influence that exists in the current moment of history.

Fromm differentiates animal and human nature. Animal nature comprises biochemical and physiological mechanisms that serve the aims of physical survival. The main task of personality is to realize human nature. Human nature is able of cognizing itself and other objects. When an organism has such knowledge it separates itself from the nature and from other organisms. The positive aspect of such division is freedom, the negative one is alienation. The action with accordance to human nature leads to productivity. As a human being, the individual has self-consciousness, mind and imagination. Gentleness, love, empathy, interest, responsibility, identity, honesty, transcendence and freedom are exclusively human emotional experiences.

Freedom is accompanied by the feeling of loneliness, own insignificance and alienation. That is why people want to “escape from freedom”. There are several ways for this. Authoritarianism is a tendency to unite with something or someone external, to get back the strength lost by the individual Ego. Authoritarianism may manifest in masochistic and sadistic tendencies. Destructiveness (another way) is different as its aim is not just active or passive symbiosis, but destruction, elimination of the object. To destroy the world is the last, desperate attempt not to let this world destroy me.

The automation conformity is an absolute subjugation to the social rules that regulate behavior. An individual loses its true self; it completely adopts personality type offered by commonly accepted pattern, and becomes the same as others, the same they want to see it.

Opposite to these three negative mechanisms, there is the experience of positive freedom, due to which it is possible to escape loneliness and alienation. With positive freedom a person feels itself a part of the world and at the same time does not depend on it. Reaching positive freedom requires spontaneous activity in life from people. Love and work develop positive freedom, unite people with others, without letting them lose the sense of individuality and integrity.

Human nature has inbuilt unique existential needs. The need of *relatedness* is realized through taking care of others, taking responsibility for someone. A perfect way of relating to the world is in “productive love” that helps people to work together with their individuality preserved. The need of *transcendence* is revealed in the fact that all people should transcend their passive animal nature to become active creators of their lives. Creating ideas, objects of art, material values or upbringing children allows people to rise over chance and passivity of their existence and reach the sense of freedom and own meaningfulness.

The need of *rootedness* is a need of people to feel themselves an integral part of the world. People require stability, security, similar to those they used to receive in childhood from the connection with their mothers. The need of the *sense of identity* is a need of identifying with the self. Individuals distinctly realizing their identity feel masters of their lives.

The need of the *frame of orientation* expresses the need of the stable and permanent basis for explaining the world complexity. This system of orientation is a set of rational beliefs that allow people to realize and interpret reality. Also people need to have an object for devotion, to devote themselves to something that would make the sense of their lives. This overcomes the isolation of existence and opens ways to productive life. Expression and satisfaction of the enumerated needs depends on social conditions a person lives in.

Personality for E. Fromm is an integrity of inborn and acquired psychic features which characterize an individual and make him unique. During the life a person makes relations with the world: 1) acquiring and assimilating things; 2) having relations with people and the self (socialization). Orientations, through which the individual establishes relations with the world, determine the essence of his character; character may be defined as a relatively permanent form that serves as

a mediator of human energy in the process of assimilation and socialization. There are five main types of character.

Receptive orientation means that a person considers the source of everything good in life to be outside, and the only way to get what is desired is to get it from the external source. Such person is passive, trustful and sentimental.

Exploitative type does not hope to get anything from the other as a present, and gets the desired by force or trick. Such people do not tend to create ideas, but they steal them, although they are quite creative and can make something by themselves. They feel attracted only to those people whom they can take away from others. They use everything and everybody that can be useful in any way.

Hoarding character is expressed in the tendency to possess as many material values, power and love as possible. Such people tend to think that their power, energy and mental abilities are limited, and this storage can be exhausted and never filled again. They are faithful to the past, and they fear anything new.

Marketing orientation is based on the belief that personality is valued as a product that may be sold or profitably exchanged. Such people have the motto "I am what you want me to see". The precondition for marketing character is emptiness, the absence of any feature that can not be an object of exchange, because any distinct feature may not suit the requirements of the market. Marketing personality must be free of any individuality.

Productive character is the final aim of the individual development. Productivity is the realization of human typical possibilities and applying of one's powers. Such type of character is independent, honest, calm, loving, creative and able to socially useful deeds. Productive orientation shows itself in productive thinking, love and work.

Thus, Erich Fromm's theory gives a look on horizons of human existence that may be reached by realization of existential needs, productive thinking, work and love. He defines personality as integrity, rejects the idea of strict determination, and admits ability to self-movement. E. Fromm's theory is a humanistic personality model in society.

Erik Erikson (1902 – 1994) introduced epigenetic principle into psychology and describes eight main stages of human psychosocial

development. Epigenetic principle stems from understanding of the development of an organism in mother's womb. This principle means that everything that develops has the innate development plan, according to which there appear separate parts, each of them dominates at some point before they all constitute one functioning whole. Personality develops according to the stages, predetermined by human readiness to be stimulated by a set of important individuals and social institutions, to realize them and to interact with them.

Personality maturation is understood as “identity” or psychosocial identity of personality. Identity is the most important feature of personality integrity on the higher levels of development, integrative quality of organization, in the centre of which there is the individual's experience of his inseparable connection with the certain social groups, such as society, nation, professional group etc.

Personality development is a process of cultivating abilities given to person by nature. A developing organism faces social environment and this meeting creates new stages in personality development. Every psychosocial stage is accompanied by a crisis, a turning point in personality's life that is a result of reaching some level of psychosocial maturity and social requirements offered to a human on this stage.

The first stage is oral-sensory or incorporating and it covers the first year of life. A person must choose among poles of trust and mistrust in favor of trustful attitude to the world that is the basis of personality's vitality. The degree of child's trust to other people and the world depends on the quality of care he receives from his mother. Positive psychosocial virtue achieved as a result of successful solution of the conflict “trust-mistrust” is hope. Hope supports human confidence in importance and security of general cultural space.

Second stage (1-3 years) is Muscular-oral and it brings the second challenge, i.e. getting independence, autonomy or shame and doubt. Solution of psychosocial crisis on this stage depends, above all, on parents' readiness to gradually give children freedom to control their actions. A child learns to walk, crawl, push and pull, release and drop. Children enjoy their new opportunities and want to do everything on their own. If parents allow the child to do what he's able to, he gets a feeling of possessing own muscles, own intentions, without anyone's

help, i.e. there emerges independence. Acquiring autonomy by the child strengthens his trust.

The third stage (3 – 6 years), locomotor-genital or Oedipal means a choice between initiative and guilt. Preschool age was called “the age of play” by Erikson. In this period the child’s social world requires activity, solution of new tasks and getting new skills. The structure of activity and behavior becomes more complicated – plans are made, long-term goals are set and actions are directed toward reaching the possible. Morality is formed. The child begins to hear the inner voice of consciousness and develops self-observation, self-control, self-punishment, sense of guilt, jealousy and competitiveness. Children, whose parents encourage their independent actions, solve psychosocial conflict of this stage positively.

The fourth stage (6 – 12 years) is latent and is characterized with child’s entering completely new social relations, i.e. school life. The child chooses between diligence and inferiority. The child actively masters cultural symbols. Mastering the bases of knowledge, children begin to identify themselves with representatives of particular professions; social approval of their activity becomes important for them. Feeling competent is the result of a successfully solved psychosocial conflict on this stage.

The fifth stage (12 – 19 years) adolescence – it is a very important period in the scheme of the life cycle. A teenager hesitates between the positive pole of self-identity and the negative pole of role confusion. The task is to combine all knowledge about themselves and to integrate these numerous images of themselves into a personal identity that is based on the past and projects the future. There are the following levels of acquiring identity: 1) identity diffusion (role confusion); 2) identity foreclosure; 3) psychological moratorium; 4) identity achievement. A person must go through all four stages; otherwise there emerges wrong identity. The elements of identity, according to Erikson are the following: self-consciousness, sense of psychological time, optimal combination of integration and differentiation of Ego, openness to changes. Identity is embodied in faithfulness, i.e. ability to be faithful to your likings and promises, in spite of contradictions in the values system.

The sixth stage (20 – 25 years) is young adulthood; it is the solution of adult tasks on the basis of the formed psychosocial identity. This is a

period of courtship, marriage and the beginning of family life. The choice between intimacy and isolation is made. Intimacy is ability to unite your identity with another person's identity without fear that you lose something inside. Excessive immersion or avoiding interpersonal relations leads to loneliness and isolation. The positive feature connected with overcoming this crisis is love.

The seventh stage (26 – 64 years) is middle adulthood; it solves the dilemma of productivity or inertness. There emerges a contradiction between human ability for development and personal stagnation, personality's slow regress in daily life. The reward for mastering self-development is forming personal individuality, uniqueness. Rising above the level of identity, a person receives the rare ability to be oneself.

The eighth stage (65 years onwards) finishes the life path. A person either receives Ego-integrity or falls into despair. A person looks back at the path and if he is satisfied he becomes calm and balanced as a result of his Ego integrity, otherwise he is doomed to despair as a result of confusion in life.

Thus, Erik Erikson's theory shows realization of personality's ability to self-movement, moreover the aim of such development is getting integrity.

***Gordon Allport** (1897 – 1967) is an outstanding personologist who combined humanistic and individual approaches in his personality theory. He was one of the creators of dispositional trend in personality psychology, the basis of which is made of two ideas: 1) every person possesses a unique set of features that greatly determines his behavior in different situations; a person demonstrates stability in actions, thoughts, feelings; 2) every person is unique; it is impossible to find absolutely identical people.*

G. Allport stated, that "The outstanding characteristic of a human is its individuality. Each person is a unique creation of the forces of nature. There was never a person just like him, and there will never be ...". His definition of personality reflects the central position of uniqueness for the author. "Personality, according to Allport, is a dynamic organization within the individual of those psychophysical systems which determine its unique adjustment to the environment". Personality trait is the tendency to act in similar way in a wide range of situations. Individual traits are

called individual dispositions. There are three types of dispositions: cardinal (in the people who live with one global idea that determines all their thoughts and actions); central (personality's bright features, the building blocks of individuality, they are easy to define, there are 5 – 10 of them); secondary (less noticeable, less generalized, less stable, hard to characterize, i.e. tastes in clothes, daily life, etc.).

Allport belongs to those few personologists who understood the key importance of the method problem in theorizing about personality's nature and who realized the striking contradiction between theoretical ideas and the way of gathering empirical facts, i.e. their true value. He accurately names integrity and uniqueness to be essential personality features as and makes this necessary step towards creating the methods adequate to these attributive features.

G. Allport divides all existing methods of personality research into two polar groups – nomothetic and idiographic. And this division turns out to be so important that, as the author proved, they correspond to two different theoretical approaches to studying personality. Idiographic (morphogenic) approach means an attempt to study personality as a unique integrity and it presupposes the usage of corresponding procedures and methods.

In fact, nomothetic approach is the traditional tendency, i.e. when personality is artificially disintegrated into parts and they try to obtain some generalizations with the help of a big number of results to make them statistically correct.

Allport understood everything right, but in the real empiric researches he used the latter, nomothetic method and that is why his scientific texts look like dramatic works: we feel how difficult it is for him to take the very way he criticizes, to make generalization not from empiric information, but on the basis of his own reflections. Arguing with psychoanalysts G. Allport introduced the so-called "autonomy of motives". These new formations of motivational character are formed in a person on a certain stage of life and are not quite related to development history. At least functional autonomy of motives and its origin is fully determined by modern life of a human. The reasons for which an adult behaves in a certain way do not depend on the reasons which stimulated him to such behavior at first. Concept of functional

autonomy means that the reasons of an adult are not determined by the past reasons.

G. Allport introduces a specific name for the self – proprium. Proprium is a positive, creative quality of human nature, which strives for development. The Self embraces seven different aspects – the proprium functions: 1) sense of corporal self a sense of body; 2) self-identity, permanency and continuity regardless of changes which take place; 3) self-esteem, self-pride; 4) self-extension, Ego embraces new aspects of social and physical surrounding; 5) self-image; the goals of the individual shall represent expectations of other meaningful people; 6) rational coping, application of logic to solve everyday problems; 7) appropriate striving, integral sense of Ego and making life plans. In addition, there is another aspect which stands above all other and synthesizes them, i.e. self-cognition of itself. Development of these functions takes place in the process of becoming personality and results in forming of a mature personality.

Psychologically mature personality is characterized in the following way. A mature human has an extensive Ego limits, can look at itself from the side, and performs different types of activity. A mature human is able to be involved in warm, hearty, social relations, in friendly intimacy and sympathy. Mature personality demonstrates emotional stability and self acceptance, has a positive idea about itself. A mature human shows realistic perception, experience and solicitation, sees things as they are, but not as it wants them to see. A mature human is capable of self-cognition and has a sense of humor. Mature personality has holistic life philosophy, system of values, which makes his life meaningful. Thus, G. Allport's theory gives understanding of personality as integral, apt at self-movement and nondeterministic (principle of functional autonomy phenomenon). Personality is a constantly changeable dynamic system, which can be understood only through individuality principle. G.Allport emphasized that the outstanding property of the human is his individuality. Every human is a unique creation of nature forces. There has never been a person like him, and there will never be...

George Kelly (1905-1967) is a representative of cognitive direction in personality psychology. For him the person is a researcher, a scientist who wants to understand, to interpret and foresee the world of experiences, and to cooperate effectively with it. Primary person's

objectives are foresight and management. Kelly underlined creative ability of living creatures to represent surroundings. Kelly's views are based on philosophical position of structural alternativism. Reality is what we understand as reality, facts always can be examined from different points of view.

Kelly's theory is called personal construct theory. Kelly pays attention to psychological processes, which allow people to organize and understand events which take place in their life. Construct is a certain model or pattern through which human looks at life. It is a special method of the world interpretation. Construct is special subjective way, created by a person, is tested by it in practice, which helps it to perceive and understand the surrounding, forecast and judge events.

The main sign of the construct is its bipolarity, dichotomy. Bipolarity of the construct is conditioned by the fact that asserting something we deny something at the same time. Construct always works in a certain context and every person should apply it to a limited set of elements at present. This limitation is determined by the range of the construct fitness.

Application range is a part of the real world in which the system or theory can be effectively used.

The entire personal construct theory is based on the main principle – basic assumption that precedes the whole theoretical system: "Personality processes are channels in one's mind in the course of which it anticipates events". The channels correspond to personal constructs. In other words, human behavior and thinking are caused by the interpreting of own experience and anticipating future events.

We may make 11 conclusions corollaries based on the main principle. Individuality arrangement corollary: people arrange their constructs hierarchically. There are superordinate and subordinate constructs.

The choice corollary: a person chooses for himself that alternative in dichotomized construct through which he anticipates the greater possibility for extension and definition of his system. People's actions in a new or unknown situation are determined by the C-P-C cycle (circumspection – preemption – control), that is gradual consideration of possible constructs and choice of the one that will turn out to be the best one for the situation interpretation. In circumspection phase a

person explores constructs that may be used for interpreting situation. In preemption phase a person limits the number of constructs to the needed one. In control phase a person takes actions and behavior.

The experience corollary: our system of constructs varies when we meet new phenomena that do not correspond to our previous construct system. Range corollary: construct system changes to ensure making right decisions in different circumstances.

Modulation corollary specifies conditions in which personality construct system changes. Commonality corollary: if a person interprets experience similar to other person, then human psychic processes will be similarly to those human processes. Sociality corollary: social interaction is one human's attempts to understand how another person understands reality.

According to G. Kelly personality of individual is an arranged system of relatively important constructs; a human uses personal constructs, to interpret the world and anticipating future events. To know personality means to know how a human interprets personal experience.

Thus, G. Kelly's theory of personal constructs offers us a new view of personality problem. The main personality trend is human's permanent striving for foreseeing and controlling those events that happen to it. Personality has an integrated system of constructs that may change (ability of self-movement).

Albert Bandura understood psychic functioning in the terms of constant interaction between behavioral, cognitive and environmental factors. This approach is called reciprocal determinism. Mainly human behavior is formed through observation or on the basis of examples. Bandura paid a lot of attention to learning problems. Reinforcement is not the only way to change behavior as behaviorists thought. Our behavior is regulated by predicted results. Observational learning is possible in case there is no external reinforcement and is the basic form of acquiring behavior models by a human.

Practically all learning phenomena that are received as a result of direct experience may be formed indirectly, through observation of other people's behavior and its results. Verbal information transmission and observation of correspondent models provides basis for most

complicated forms of human behavior. With the help of modelling processes observers exclude general features from different reactions and formulate behavioral rules that give us possibility to go beyond what they saw or heard.

Observational learning may lead to behavioral style, different from what a human observed in reality. People form a cognitive image of particular behavioral reaction by observing the model behavior and later this encoded information stored in long-term memory directs their actions.

Observational learning is regulated by four interconnected components, such as attention, retention, motor-reproduction and motivation. Attention processes allow understanding a model under observation. A human can learn a lot, if attention is paid to typical behavioral model features which it will understand correctly. Important determinant of attention is associative models (i.e. people, with whom we communicate more often, give behavioral patterns that we may study more thoroughly), functional value (approval), the model's attractiveness and also observer's own motives and abilities.

The processes of retention provide remembering the model, long-term representation of observed situation in memory. There are two main representation systems with the help of which the model behavior is retained in memory, i.e. figurative coding and verbal coding. Motor-reproduction processes provide translation of information, symbolically coded in memory into corresponding actions. Motivational processes are connected with retention. If you have retention of modulation or observational learning it rapidly transforms into action. Positive retention also influences attention and memorizing processes. Also prediction, stimulation or punishment may act as retention mechanisms.

External reinforcement performs two functions: informative and stimulating. Indirect reinforcement is connected with observing someone. Aversive consequences of the observed actions make the observer not use such behavioral models. Indirect positive reinforcement leads to the fact that observers behave the same way as the models.

Self-reinforcement happens every time people set a goal for themselves and stimulate or punish themselves for reaching it, exceeding it or failure. Self-reinforcement makes self-regulation

possible. There are three processes that are components of human self-regulation: self-observation, self-esteem and self-report.

Self-efficacy is people's ability to realize their abilities for adapting their behavior depending on the specific task and situation. The way human estimates its own efficacy, determines expanding or narrowing choice possibilities, efforts that must be made to handle obstacles, etc. Self-esteem of efficacy influences behavior forms, motivation, varying behavior and emotions. High self-efficacy connected with expecting success usually leads to good results and thus contributes to self-respect. Self-efficacy can be achieved in 4 ways. 1) Ability to model behavior. Past experiences of success and failure in reaching desired results are the source of efficacy. Successful personal experience generates high expectations. 2) Indirect experience. Observing other people who successfully solved a task may give hope for self-efficacy.

3) Verbal persuasion. Efficacy may be reached by persuading a human that he/she has abilities necessary for reaching his goal. 4) Emotional enthusiasm. People reach success faster if they are not tensed and are emotionally stable.

The process of behavioral self-control consists of five main steps: defining the behavior form to be influenced, making a program for increasing frequency of the desired behavior, implementing and estimating the program and finishing the program.

The initial self-control phase is defining the form of behavior that should be changed. To approach the problem efficiently, one must turn vague remarks about personality's peculiarities into precise descriptions of specific reactions that illustrate these peculiarities. The second step of self-control is collecting main information about factors that influence the behavior we want to change. We must practically become someone like a scientist, who not just marks his own reactions, but also registers their frequency to get feedback and evaluation. Creating the program of self-control. Change of the frequency of specific behavior repetition may be done by several ways: a) Self-reinforcement. If people want to change their behavior, they must constantly stimulate their desired deeds. b) Self-punishment. To reduce repetition of undesired behavior, one may also choose a self-punishment strategy. c) Environment planning. To make undesired reactions happen more rarely, one must change the environment so that either incentives preceding the reaction, or results of these reactions change.

Fulfilling and evaluating the self-control program. The next logical step after the development of the self-transformation program is its fulfillment. Wonderful means of control is a contract with yourself, i.e. a written agreement with the promise to keep to the desired behavior and use appropriate stimulation and punishment. The last step in the process of creating a self-control program is specification of conditions, under which it is considered to be completed. In other words, a human must define the final aim precisely. Actually it is better to finish the self-control program, gradually reducing the encouragement for desired behavior. A successfully finished program may just disappear by itself or with minimal efforts. Sometimes a human may decide when and how to finish it. Finally the aim is to develop new improved behavior forms that are retained forever. Of course, a human always needs to be ready to renew self-control strategies if non-adaptive reactions appear again.

Thus, A. Bandura's socially-cognitive theory emphasized the interaction of behavioral, cognitive and environmental factors. This saves a human from determination. Personality may develop, through modelling own behavior, observational learning, and thus it is able to self-movement, with self-efficacy being its highest expression.

Abraham Maslow (1908 – 1970) formulated main principles of humanistic psychology, suggesting the model of personality to be responsible human freely making choices in life. Avoiding freedom and responsibility does not give possibility to reach originality, authenticity. It is not rational to focus attention on detailed analysis of separate events, reactions, experiences; it is necessary to study every human as a whole, unique, organized unity.

Every human has a set of possibilities for growth and improvement. From birth all people possess creative potentials, but most of them fade as a result of "cultivation". Failure to satisfy basic needs brings about destructive forces in them.

Hierarchy of needs, according to Maslow, is the following sequence: physiological needs, i.e. body needs; safety needs: needs for security, order and stability; need for belonging to family, group, friends, beloved; need for esteem, respect, approval, self-respect; need for self-actualization: freedom, necessary for the most complete development of all talents and abilities, for self-realization, self-actualization. At first

human needs to satisfy basic needs to be able to satisfy the needs of the next level.

All human motives may be divided into two global categories: deficiency (or D-motives) and growth motives (or being, B-motives). D-motives are stable behavior determinants, contributing to deficiency states (hunger, coldness, etc.). Their absence causes disease. D-motivation is aimed at changing unpleasant, frustrating conditions.

Growth motives that are also called meta-needs, have distant goals, connected with personality striving to actualize its own potential. They enrich life experience, expand world-view, not reducing, as in the example with D-motives, but increasing tension. Meta-needs, unlike deficiency needs, are all equally important and are not placed in the priority order. Meta-needs are the needs for integrity, perfection, activity, beauty, kindness, truth, uniqueness.

Motivational status of a healthy human lies, first of all, in striving for self-actualization that is understood as completion of the mission, following one's calling, fate.

Self-actualization is an extremely rare phenomenon. It is reached, as Maslow considers, by less than one percent of people, because the majority just do not know about own potential, are afraid of their own abilities. This phenomenon was named the Jonah complex that is characterized by fear of success that prevents human from striving for self-improvement. An obstacle for self-actualization is also strong negative influence of security needs.

Growth process requires permanent readiness to risk, to make mistakes, to refuse comfortable habits. Realization of the self-actualization problem requires courage and openness to new experience. A. Maslow also paid attention to the role of peak experiences in personal growth, due to which transcendence is reached; a person can cross its own boundaries and come closer to its own true essence.

Self-actualization, according to A. Maslow, is the "on-going actualization of potentials, capacities and talents, fulfillment of a mission (or call, fate, destiny or vocation), fuller knowledge of, and acceptance of, person's own intrinsic nature, as an unceasing trend towards unity, integration or synergy within the person".

According to Maslow, self-realization, brings integrity, unity, a person becomes more open to perception, is notable for uniqueness, expression and spontaneity, functions more fully, has more creative

abilities and a better sense of humor, is able to laugh at oneself, is sure of higher beauty ideals, pleasure, honesty, kindness, truth and sense.

He describes eight ways of self-realization (self-actualization):

- complete throwing oneself in experiences, when a human completely opens its senses;
- rejecting commonly accepted behavior, listening to inner voice, the voice of the Self;
- constant progressive choices that contribute to personal growth;
- being honest, taking responsibility;
- readiness to be disliked by others;
- striving for being as good as possible in what you do;
- peak experiences, ecstatic moments;
- finding out who you are, what you like, realizing what is good, and what is bad, where you are moving to, what your mission is.
- Thus, A. Maslow's theory is dedicated to healthy personality development that strives for self-actualization, self-completion, and self-development. That is integrated, non-determined unity, able of self-movement.

Carl Rogers (1902 – 1987) considered that there existed fundamental aspect of personal nature that made a person move toward more realistic functioning and to higher congruity (which he understood as correspondence between what is expressed, what is in the sphere of experience and what is noticed).

C. Rogers thought striving for actualization to be the main motive of human existence, it was considered to be typical of an organism striving for realizing its possibilities and abilities with the aim to make personality stronger, and the life richer, more versatile, full and satisfying. All other motives are only types of striving for actualization. Striving for actualization is a starting point of establishing “fully functioning person”.

The Self or Ego-concept is the organized consistent, conceptual gestalt composed of perceptions of “I” or “Me” characteristics and perceptions of relationships of the “I” or “me” to each other and to various aspects of life, together with the values attached to these perceptions”. Self-concept is person's perception of what it is. Self-concept reflects the features which a human considers to be a part of

itself. Self concept also comprises information about what we would like to be, i.e. Ego-perfect. Development of Self-concept is connected with other people's evaluation of a child. When "the Self" is being formed (in a newborn), it is regulated solely by the organismic evaluation process. This facilitates to correct satisfaction of the child's needs. The structure of "the Self" is formed in interaction with the environment.

Self-concept is determined by personality's socialization. The need in positive regard is typical of all people. It is manifested in person's satisfaction, being approved by others, and frustration, being disapproved. More often parents positively treat child's desired behavior. Thus if a child behaves properly, it gets experience of positive regard, otherwise there is none. This is a conditional positive regard, or value condition, that specifies circumstances, under which children will experience positive regard. Value condition harms child's full value development, because it makes him act as others want, but not develop to reach his goals. Although nobody can be completely free of value conditions, one may get positive regard regardless of behavior. A human is taken and appreciated as it really is, that is absolute positive regard, the only way not to hinder child's actualization trends. The child is treated and appreciated without criticism.

Human behavior is usually coordinated with his Self-concept. Experiences that are coordinated with the person's Self-concept and his value conditions are easily realized. Experiences that are in the conflict with "the Self", make a threat to Self-concept, they are not allowed to come close to consciousness and precise perception.

Anxiety is emotional reaction to a threat that signals that Self-concept may suffer, if disparity between it and hazardous experience becomes conscious. Defensive behavior reaction of the organism to the threat has the main aim to save integrity of Self-structure.

There are two main defense mechanisms. They are perception distortion and denial. Perception distortion lets a threat penetrate into consciousness, in the form that fits the Self-concept. In case of denial a human preserves integrity of Self-concept, completely avoiding threatening experiences.

C. Rogers considers, that it is necessary to establish a certain type of relations with other people (especially during psychotherapy), that would satisfy the following conditions:

- truth in relations (in other C. Roger's works he calls it congruity);

- acceptance of other human;
- empathy (understanding thoughts and feelings).

When these requirements are met and relations are established, an individual will discover possibilities for self-development, self-realization.

C. Rogers defines main actualization features: mobility, openness, independence of external influence and self-reliance.

The fully functioning human is open to own experience, i.e. can take it without defensive mechanisms, not being afraid, that realizing own feelings and thoughts will influence self-respect. Its "Self" is a result of external and internal experience that is not distorted to fit the common opinion about itself, and the opinions correspond to the experience that actually is expressed by verbal and non-verbal means of communication. Such human does not dissemble, saying what he feels.

Being fully realized such human lives every moment in life to the fullest. It is typical of it to be active, easily adapt to new conditions, be tolerant to others. This is an emotional and at the same time reflexive human. He trusts his own integrated organism, and uses own feelings, perceptions and thoughts as a source of information, rather than other people's advice. Such people, according to C. Rogers, are free to choose their life path. Despite all restrictions they always have their choice; they are free to choose and are responsible for the results of their choice. In self-realization, they become more creative.

The aim of the personal growth is, according to C. Rogers, "good life" that means not the life filled with pleasures, not wealth or power, not the complete control over self or calmness, but movement toward the way that the organism has chosen. A human that freely moves through the way of his personality growth, is the most fully functioning human.

Thus, we can see a humanistic and humane concept: belief in the human's positive and constructive basis is combined with opinion about the trend of actualization, at the same time attempts are made to generalize, substantiate the ways to help personality in its actualization through direct psychotherapeutical work of the author Carl R. Rogers.

We are finishing the review of main personality theories in foreign psychology. Naturally, a lot of interesting concepts are left out of attention, but the volume of the present book does not allow to make comprehensive analysis of the problem. We came to what we started with: personality is a form of human psychic existence, an integrity able

of self-development, self-determination, conscious material activity and self-regulation and has own unique inner world. Personality is an open system, and one may always find small unknown islands that require scientists' new efforts, and, possibly, poets' metaphors; personality is non-determined and constantly moving. Personality is a whole universe. Personality is what is in me and you. Personality is a big puzzle, and to solve it, great intellectual work is necessary as well as experience and lots of other things. We hope that the described personality theories will become guidelines for finding badly needed answers to primordial human questions.

PERSONALITY STUDY METHOD

The scientific study of personality psychology as a real (not imaginary) object of research, as a unique, original and integral system, as a unity makes a great problem. The point is that modern science lacks the main thing – a method which would be appropriate for this object of study. The method is a central component of the whole problem of personality psychology as it is not merely a means of obtaining scientific empirical facts. Method is also a means of implementing scientific knowledge, a mode of its existence and storage.

Such conceptual understanding of the method gives the possibility to visualize a logically coherent research plan: scientist's views on personality psychological nature based on everyday facts, obtained theoretical knowledge, and one's own experience, engender problem when facing new facts and new experience. Solving of the problem demands new scientific empirical evidence and the method emerges, firstly, to objectivate the ideas and notions, secondly, to reflect the problem, and thirdly, to be the ideal technology, whose key parameters perfectly fit the system under study – personality.

Scientific facts (not worldly wisdom) received while using this method are theoretically generalized by a researcher, compared to previous views, other authors' study results, thus producing new concepts and problems. This logical scheme, which accurately reflects the essence of the method as such, is hardly ever applied in personality study. On every stage we have gaps and contradictions. Integrity, uniqueness, wholeness of personality is recognized as its essential (attributive) properties practically by all serious scientists. But this view is inexplicably materialized in partial, fragmented methodologies for studying its separate (for all this artificially separated) elements thus

not taking into account the classic statement that a sum of parts never equals the whole unity. Activity is another universally recognized attributive feature of personality, and contrary to reactivity it means personality's ability not just to respond to irritants, but to exist, proceeding from its own goals and ideals. Then why is this knowledge objectified solely in stimulus-reactive methods and methodologies where should tests, experiment in its classic form and different questionnaires be referred to? The same problem is observed in development research. The initial ideas of the complex process of self-development, heterogeneity of its mechanisms, etc. are realized exclusively in "profile" methodological procedures which only state peculiarities of a definite moment and do not reveal development mechanisms.

The absence of a method adequate to initial ideas and to the object of study generates scepticism and disappointment and forces a researcher to complete basic positions by himself/herself, i.e. to look for answers to questions not in the object of study but in books and own experience. As we can see this is far from being a scientific approach.

Gordon Allport and his work on personality theory is a typical and vivid example. Allport is one of few personologists who really understood the principal role of the method problem in personality theory and realized the existing astonishing discrepancy between theoretical position and ways of obtaining empirical data, hence their real value. In most precise and clear terms he names integrity and uniqueness to be essential personality characteristics and makes the necessary step towards elaborating a relevant methodology.

G. Allport divides all known methods for personality study into two opposite groups – nomothetic and idiographic. This division turns out to be of such great importance that, as the author proves, there are two different theoretical approaches to personality study with corresponding names. Idiographic (morphogenetic) approach is an attempt to research personality as a unique integrity and use of appropriate methods and methodological procedures is expected.

Nomothetic approach is in fact a traditional trend, when personality is artificially divided into component parts and some generalizations are made only on the basis of a huge number of results just to make them statistically valid. Allport got it right but in his own empirical studies he used the latter, nomothetic method, that is why his scientific texts are

read as dramatical piece: we feel how difficult it is for him to follow the way he criticizes – to make generalizations not on the basis of empirical data but of his own reflections.

G. Allport failed to create a method which would objectify his initial ideas and that was his main problem. But it is also the common problem for personality psychology. Most scientists resort to reductionism as its solution: as personality is too “big” an object, first of all we need to single out some of its parts in theory, not any, but substantial parts, the study of which will be close to the study of the whole personality

This use of a so-called constituent basis of personality was undoubtedly a step forward. But soon a strange thing happened – every scientist singled out a different constituent basic element. Speaking of Ukrainian psychology, such elements were considered to be: direction (L. I. Bozhovych), attitude (V. M. Miasyshchev), communication (O. O. Bodaliyov), activity and motivational hierarchy (O. M. Leontyev), selectivity (M. F. Dobrynin), attitude (D. M. Uznadze), emotional inclination (B. I. Dodonov), etc. The same process is observed in foreign psychology. Only Z. Freud was consistent throughout his career. Of course, his approach is also a reduction not even very well analyzed. But we are interested in a different aspect: only Freud (so far) managed to form a method, use it, obtain results and build a personality theory on their basis.

Another question is that Freud mostly ignored the attributive characteristics of personality: integrity, activity, and uniqueness. That explains why his theory does not differ from the rest – it is a partial picture formed on the analysis of a randomly selected structure which can give nothing more than what it states. If it claims to be of general application, it brings about only confusion.

Can modern psychology overcome the crisis of the analysis method? There seems to be every reason for this.

L. S. Vygotsky’s “non-classic psychology” (cultural-historical theory) contains important initial methodologemes, further development and comprehension of which brings us close to the creation of appropriate personality study method. According to this theory, culture is the ideal representation of real human abilities, and person’s psyche is a socio-cultural and semiotic entity which is being developed in communication situations. F. T. Mykhailov notes that for psychology this statement is a valid definition of its research object: 1) formation in ontogenesis of a system-

forming initial ability to have purposeful attitude to self-being, the world, and its objective conditions; 2) development of this ability in a rich variety of its manifestations (in thinking, emotions, will, attention, etc.); 3) their transformation into an integrity (unity) of the whole subjective world of an individual”

So, what is at issue is the initial (key) ability of a person which develops according to its own laws and thus unites all psychic phenomena into one unique whole – personality.

In these reasoning we see an essential detail concerning the research method – integrity can be appropriately studied if we examine the process of its emergence and development and not only a certain result (post faktum). So, here the initial scientific problem of a psychological research changes fundamentally – the problem is not personality integrity as a fact but the process of its emergence. In other words, personality psychology should not begin with stating the existing psychic structures and looking for means of their further analysis, but with “the problem of human subjectivity formation, the grounds of the process of objective environmental conditions transformation into internal world, which is subjectively experienced, which mediates, directs and motivates vital activity”

That is how another important methodological aspect emerges – human higher mental functions (that is personality, as we have defined it as a form of human psychic as a whole) are not given as such, they are specified, and they cannot be studied unless the person receives means for their development. Generally speaking, it means the research of development and the research in development. P. Ya. Galperin said: “Actual structure of mental functions is only revealed in genesis: when their formation is completed it is impossible to differentiate their structure, moreover, they go “deeper” and are concealed by “phenomena” of a different kind, nature and structure”

Stated methodological principles were applied by the authors of cultural-historical theory in a special research method – the experimental-genetic method. The sense of the method is that activity thingness and corresponding interpsychic form is organized and built by an experimenter himself/herself taking into consideration available mechanisms and theoretical concepts. An observer does not create stimuli or register reactions – he/she organizes the development of a certain psychic process, and he/she is at the side, not opposite. This is

what Vygotsky emphasized: not only an object is in front of a researcher but the researcher is in front of the object. Such common movement and distributed activity really allows to study how a particular higher psychic function emerges and develops and therefore how it is structured. It is necessary to stress that the position of the researcher is unique here – he/she is not “in front of” but “at the side”. With its structural and schematic indicators this position is similar to that of a psychotherapist (especially in psychoanalytical and humanistic approaches). But there is a significant difference – the experimental-genetic method is to form and study, not to overcome problems, though the latter also happens, but accidentally and without control.

The logic of this method presupposes not mere registering peculiarities of some empirical psychic forms, but their active modelling and reproduction under special conditions. This makes it possible to reveal their essence, i.e. regularities in their emergence and development in ontogenesis of certain psychological functions. That is why specific implementation of the experimental-genetic method in age and pedagogical psychology always includes formation experiment as a necessary component.

While using the experimental-genetic method, unlike other methods, a researcher purposefully sets the theoretical level of studying psychic processes by constructing content-operational aspects of object activity. The specific peculiarity of such constructing is that a model, created by a researcher with the purpose of its examination, corresponds to real inner structure of a psychic process.

Here a generic psychic process, be it a way of thinking or memory, is reproduced by a particular individual according to those social and cultural norms which have made him/her the product of society spiritual culture.

Using the words of F.Engels, we can say that the experimental-genetic method by its own organization records “objective dialectics of things” and generates “subjective dialectics of ideas”, complex dialectics of individual’s psychic world which develops according to reality reflection laws.

These laws are expressed not in a general abstract form but as a content-functional system of certain activity. Only then they become the basis of connections and relations which form the psychic process in

development. So, it is a content-functional system of the experimental-genetic method which is a psychological center of the research.

It means that a psychic process or function under study is first constructed as a model of certain activity and then actualized by means of special subject activity organization ways. In pedagogical psychology such universal subject activity organization mode is a task, the solution of which presupposes relevant psychic process functioning.

A criterion for psychological evaluation of the conducted research is the extent of relevance of the task solution process which is being carried out to its model's task.

An educational task in the experimental-genetic method serves as an artificial means of engendering and developing psychic processes, their specific model. Of course a model as objective and psychic as subjective formed on its basis are not identical, but they are adequate. In the process of interiorization (appropriation) external social relations first become the means for the subject activity psychological organization and regulation, and then move inward, taking the form of psychic processes. They do not stay unchanged, they are enriched acquiring necessary lability in the process of their functioning.

So, the experimental-genetic method itself includes ways of formation of higher psychic functions which are appropriated by an individual in the process of content transformation. Besides the very process of transformation combines genetic and structural-functional aspects of objective reality thus setting similar structures (in the form of analysis modes) to psychic.

In the process of interiorization ways of transformation act as psychological mechanisms of subject's specific activity. Such idea of psychic processes as individuals' activity and behaviour regulators urges to interpret psychic development regularities as a necessary and logical outcome of the given formation process line foreseen by the experimental-genetic method.

The experimental-genetic method is applied in age and pedagogical psychology in the form of school curricula design which gives the possibility to experimentally combine age and pedagogical psychology into one organic whole, to show the discrepancy of their opposition and separating upbringing and development. This is the method which studies formation regularities of new kinds of cognition activity. That is

why the topical task is: to single out construction principles of this research method and find out favorable conditions for its application.

Theoretic understanding of experimental education experience made in the context of mentioned approach brings us to the necessity of singling out the principle system of experimental-genetic research organization, as well as finding the sequence of main logical and operational structures implementing it

The main principles are as follows: **1) unit analysis principle** (singling out initial contradiction which brings about the class of phenomena as a whole); **2) historicism principle** (the principle of genetic and experimental unity in the research); **3) system principle** (the principle of integral study of psychic formations); **4) projection principle** (the principle of active modelling, reproduction of psychic forms under special conditions).

Unit analysis principle. Formation and application of the experimental-genetic method of psychological research presupposes revealing and discovering causative (causal-dynamic in L. S. Vygotsky's terms) connections and relations which lie in the basis of complex psychic processes. "Unit" analysis is the means of solving this task.

The goal of unit analysis is to single out initial relation (in reality it always exists in the form of some contradiction), which brings about the class of phenomena as a whole.

An isolated psychological unit – "a cell" – preserves characteristics of the whole. This kind of analysis makes it possible to single out a certain element in any psychological unity preserving properties of the whole. It should be stressed that a unit keeps characteristics of the whole potentially, as possibility of their emergence in the process of its own development. Such properties are the whole variety of forms, specific characteristics in which the unit manifests itself as the essence of variety.

This is the integral analysis. Its main task is not to divide psychological unity into parts or even fragments but to single out certain features and moments in every psychological unity which would preserve the supremacy of the whole; its application is related to natural understanding of psychic processes.

Unit analysis makes it possible to find out and interpret real connections and relations which form the given phenomenon. Such

analysis is to explain the emergence, genesis of psychic process external features. This can be done if all constituents of psychic process are working dynamically, which always demands slowing down the process to some extent and is achieved better when its running is complicated.

In the experimental-genetic method unit analysis has been combined with the genetic scientific research mode, so the analysis acquired the status of scientific argumentation for psychic processes development. As the result of such an approach all psychic formations as stable units started to be studied as processes.

The main methodological requirement to studying psychic is transformation of “a thing into a process”. Naturally, genetic reproduction of all development moments of the given process becomes the principal task of study in the context of such research guidelines. Naturalistic experimental-genetic research of psychic processes brought about a demand of introducing such psychological terms as “a dynamic system” and “a development moment”.

The first notion – “a dynamic system” – characterizes peculiarities of psychic processes as their qualitative and quantitative change. Parts of psychological unity are in a complex interaction which gives rise to new properties, new kinds of interaction and inter-relations. As the result, psychic formations as dynamic systems are changed both in their quality and quantity.

The notion of “a development moment” is introduced to characterize a stage of psychic process development. Observing relationships between development stages gives the possibility to describe the genesis, the course of a given process. The analysis which determines inter-dependencies between stages is dynamic which means that it deals with dynamic development of principal moments creating the historic course of a given process.

So, the main result of the experimental-genetic research is a historic explanation of the essence of a certain behaviour form which means revealing the process genesis, its development history and finding out what brought it to the present moment.

Historicism principle. This principle is introduced as a logical unfolding of the previous one (unit analysis). The fact is that an isolated unit, as a contradictory initial formation, according to dialectics logic, is viewed as a process with its historical beginning and end. Historicism

demands examining all development moments and regularities of their relations and transitions. Using historicism principle for psychic formations we should take into consideration its relevance to the investigated material state and in no way its identity of phylogenetic and ontogenetic aspects of development.

Under these conditions the researcher's task is to study structural components of a developing psychic process genetically. To cover the development process of some thing in all its stages and changes – from the emergence to the end – means to reveal its nature, to learn its essence, because its existence can only be seen in dynamics.

The demand of historicism approach to the formation and application of the experimental-genetic method is a particular manifestation of social pre-eminence in psyche development.

Historicism approach appeared in opposition to traditional psychic analysis; it is most vividly expressed in the idea of higher psychic functions mediation. Understanding of psyche as a historical product determined the necessity to create an adequate – historical – method of its study. This is an instrumental method which is also called historical-genetic.

The instrumental method differs from traditional psychological methods such as observation and experiment: in fact it represents a special approach to psyche study which stems from understanding of the investigated subject's nature and essence; first of all, this is a methodological principle and a way of children's psychological study; this method can use any methodology, i.e. a technical research tool: experiment, observation, test, etc.

It should not be assumed that L. S. Vygotsky was the first and only psychologist who suggested studying psyche in its development. But both before and after Vygotsky psychic development study was carried out by using a diametrical profile method – child's development and behaviour levels, as well as the state of certain mental functions are measured at different ages; then a general development picture is formed on the basis of isolated data received at discrete points on the age axis.

Drawbacks of this method could be overcome, on the one hand, with the help of psychological tools of psyche mediation hypothesis which became grounds for the experimental-genetic method. On the other hand, a clear explanation can be only performed by the method which

allows doubling, modelling development course, reproducing it, and showing the genesis of a certain phenomenon. Formation of such method became possible due to reciprocal assimilation of two theoretical ideas important for psychology – development principle and an objective-experimental psyche study principle.

The development principle is basic for explaining the process as a whole, and experiment is a key to objective understanding of actual development process, which allows singling out regularities in an abstract form (they are the essence of genetic process).

Relations between actual, real development and investigated development (by means of its reproduction) is the same as between logical and historical (logical is historical free from its separated, fragmented form and from accidents which break the structure, that is why only it enables studying any development moment in its classical form).

So, experimental-genetic study is the only methodologically correct way of studying psychic development, and the main task of educational psychology is approximation of morphological, experimental and genetic analyses.

The instrumental method which is understood as a methodological principle possesses significance exceeding the boundaries of any specific branch of psychology. By its essence it is the basis of the so-called “general psychology” – a middle, “mediating” link between philosophy and a specific branch of psychology. In this function it is used in educational psychology studies.

System principle. The selection of a system in which psychic development is studied is of primary importance for obtaining objective data on its driving forces and mechanisms.

The history of psychology is rich in examples when such a complex phenomenon as human psyche was divided into more simple constituent parts. Properties, ways of formation and changes of these parts have been studied and described; the received data have been summed up thus “giving” all the necessary knowledge about the basic and complicated phenomenon of psyche. Such an approach implementing the mechanisms principle was historically predetermined by rapid development and outstanding success of classic

mechanics and physics. These fields produced cognitive methods giving answers to a range of questions which could not be solved before.

But in the course of time new scientific facts were accumulated testifying that such method is not effective enough for studying complex psychic phenomena. It could not reveal the essence of psychic processes and show the dynamics of their development.

A new approach, based on the so-called systemacy principle, was directed at finding out regularities of emergence and development of psyche as whole integrity. This principle was first used by K. Marx and F. Engels for the description of social processes.

Gradually the relevant analysis method struggled its way to the science about psychic human nature. Then it resulted in the cultural-historical human psyche development theory. And only in its formation the mentioned principle was applied in the most strict and consistent way.

A cultural-historical psyche development concept not only stated its social genesis, though even this had great theoretical significance, but social determination itself was studied with the help of dialectical-logical analysis. As a process considered social there emerged a necessity to single out inner and contradictory moments, determine their relations and dependencies.

The solution of this task is inseparably connected with introduction of the system principle. Contrary to formal-logical understanding of the system, the experimental-genetic method (EGM) consolidates a developing system and its genetic source is a "cell" as initial contradictory relation with all the components of a fully developed whole. EGM uses its content-operational tools to note all the necessary transitions in dialectic development of isolated initial relation. Transition from a less developed notion to a more developed one is stipulated by the system principle.

The formed system of a developing notion also requires an adequate system of object-transformation actions, performing of which finally makes an appropriate system of individual's psychological new formations.

In its actual functioning the EGM system principle is a particular mechanism of moving from abstract to specific, it connects developing knowledge and object-transformation activity generated by this knowledge. As a social-objective basis for individual psychic

development, this activity frees itself from historically produced conditions and contains only a logically ordered form which allows grounding and organizing scientifically a controlled psychic development process.

Using the EGM in educational process, the systemacy principle is an indispensable logical step in forming the learning material content. It involves logical-psychic analysis of scientific knowledge and its projection into the fundamental educational system. In EGM the systemacy principle is derived from the unit analysis principle and historicism principle, characterizing historical development of unit analysis.

Psyche forms projecting and modelling principle. The projecting principle in theory of the experimental-genetic method demonstrates its qualitative difference from corresponding structural components of other psychological methods. The experimental-genetic method is aimed at artificial creation of such psychic processes which are presently absent in an individual's inner world.

This dictates the necessity to design an experimental model of their genesis and development, establishing regularities of this process. Similar experimental models of different psychic functions, abilities (or processes) are formed with a cognitive aim but they are prototypes of actually functioning processes. It is clear that psychological models construction is not the result of a researcher's intuition. It appears in the course of complex logical processing of cognition results which are the essence of human culture.

The experimental-genetic (genetic-modelling) method consists of theory, in the framework of which it appeared; projecting (modelling), transformative (forming) experiment and diagnostics (fixation) both intermediate and final (to certain extent) psychological new formations of a developing personality.

Relevance of the experimental-genetic method to the mental functions study is determined directly by dialectic propositions about social genesis of individual's consciousness, about psychic development as appropriation of society's cultural heritage by a subject. That is why it is the most adequate method for personality education problems and psychic development research.

The experimental-genetic method has not been used and cannot be used for examining personality as such. But actual empiric results obtained from its application and theoretical generalizations made in the framework of developmental teaching theory make it possible to consider it as a conceptual basis for creating personality study method.

The experimental-genetic method has been used to study emergence and development mechanisms of separate higher psychic functions: a subject, applying (creating) special means, appropriates universal abilities which exist in social environment in the form of other subjects' objectified manifestations, and then transforms them into his/her own abilities (higher psychic functions). The psychological mechanism of this phenomenon has been determined – it is interiorization. It has also been ascertained that further abilities appropriated in this way, are already intrapsychic structures, forming the so – called “interfunctional psychological systems” around them and determining processes of individual's further “rooting” in culture, mediating them from inside (double mediation phenomenon).

These data brought us very close to personality analysis. But this method cannot embrace personality as integrity which is not the sum of separate parts, but their particular organization and dynamic interpenetration. Integrity characteristic of personality and of its separate elements specified each time according to a particular part, and remaining equal to itself. In this sense the experimental-genetic method is a “typical” nomothetic way of personality study. Though its aim is to determine how this unique self-developing system creates its own integrity, the integrity itself is left aside again, and a researcher has to complete it in his/her own mind on the basis of specific and partial results.

The difference between studied objects and actual research goals causes different development logic and application technology of the experimental-genetic and genetic-modelling methods.

Experimental-genetic research means singling out an essential analysis unit of a science as a phenomenon, resulting from higher psychic functions objectifying of a great number of people in a historical scope. Then this material is “transferred” into an academic subject form followed by appropriating it in the form of a learning task as a means of solving a specific educational problem. The result of such appropriating

is emergence of a new psychic structure of a higher complexity order (a unit of consciousness).

The genetic-modelling method is aimed at studying self-developing personality as a whole. So, the necessity arose to find “units” of a different nature. It was determined that it is the need as a contradictory initial unity of biological and social, conditioning personality existence. The principles of method design reflect the nature of studied object existence: social, impossibility to obtain final empirical data concerning human inner world (reflexive relativism). The method technology (the principle of genetic and experimental development lines unity) dictates conducting a research under most natural conditions for a personality and creating a timely space which enables the personality to fulfill numerous possibilities for modelling his/her own development and existence.

Another point. Appropriating cultural-historical experience in the form of tools – signs, which starts at a certain (not the initial!) stage of ontogenesis takes place in individual’s own activity directed at satisfying existing needs. This is the basics of the cultural-historical theory. But here at least two principal questions arise. How does this stage of “rooting into culture” appear? What was there before it and what caused its emergence?

The other group of questions concerns necessities proper. Actually, an individual never feels the necessity to appropriate an ability. So, firstly, what do we mean by saying that this appropriation is carried out in the process of necessities’ realization? And why is an individual (as our experimental results show) ready for interiorizing at any of the earliest stages of ontogenesis? And secondly, where do human necessities come from, what brings them about?

Answers to such fundamental questions require creation of a new methodology as a method of personality theoretical analysis.

A human being, conceived in the mother’s womb, has always been “one bone and one flesh” of two human beings. Social (the whole range of generations experience appropriated and concentrated in two loving beings – parents) is objectified and implemented in a miraculous creation – a new biological creature, but... not only biological, rather biosocial. The need of two people, biosocial by nature, their need in one another and the need in their own continuation – in a creature – begets this creature and is continued in it, being manifested in different

necessities and also provides what is called “rooting in a culture”. The need is also eternal experience medium of a human (both as a biological and social being), and at the same time it is the source of personality activity – an activator, the energy of which never dies out because it is implemented and reproduced in a new life.

When we observe (study) a human child during early period after its physical birth our sensual experience (or an experiment) gives us information about separate parts, their interconnections and functioning. But something very important, essential stays out of our sensation but we are aware of it. We know that this is a living human being, and the basis of its existence is in biosocial need drive, that this creature is already the implementation of all natural and cultural experience, that of its parents’ in particular. We know that it is ready to become a personality and we can imagine what it will become (both biologically and socially). This knowledge is no less real than the one we get from senses, but it is different. It has been a long time since J.-W. Goethe aptly named this knowledge “exact sensorial fantasy”: it is our free construction but it looks “not completely” free because at the same time it is exact, being grounded on reliable empiric data. This is our projecting of an integral object of study. But this “exact fantasy” is not covered by existing psychological research procedures. It is either implied or substituted by some partial notions – guesswork having no relation to the object of study. Psychology in all its directions and manifestations has always stopped in front of this phenomenon declaring that not everything can be given in experience.

We have a different opinion. If sensual experience is not enough for explaining personality phenomenon, there is no point in stopping or turning to speculative cobwebs. This drawback should be overcome by widening and qualitative changes of experience. An important thing is that we mean not only widening (no matter how many new methodologies and techniques we may use they will not help if they go beyond the existing paradigm). We need a qualitative change, i.e. a completely different and new experience which would be relevant to the essence of a studied phenomenon.

In this case the following unity is crucial: nature is humanized, and a human is naturalized. In cognition this phrase takes us nowhere, but we cannot move on without it, it is the reference point. Humanized nature and naturalized human is a phenomenon (not only a statement),

and as such it has different forms of existence. One of them is biosphere as integrity, another one is a human being as integrity. In the latter this integrity is *caused and sustained by the need*, which is biosocial in its essence.

Acquiring qualitatively new experience calls forth a new research method which is relevant both to the object and initial regulations. It cannot be an analytical method because the need as initial contradictory unity of biological and social does not disintegrate but it creates, integrates a holistic personality in its ontogenetic process. So, it should be a method modelling the personality genesis. Let us name it genetic-modelling method, as it most explicitly demonstrates its essence. (It should be noted that in developing education theory a genetic-modelling method is called a genetic-modelling experiment and is identified with a formative educational experiment. It seems to us that this identification is a misunderstanding based on the assumption that L. S. Vygotsky supposedly used the terms “experimental-genetic method” and “genetic-modelling method” as synonyms, which is very doubtful).

Personality is a complex self-developing system, i.e. it models and implements its own genesis. To study this process scientifically and consequently to study personality, we should create such ways and forms of study which would not interrupt or artificially stop the process, but would give rise to it and coexist with it. Ideally it is coexistence based on the combination principle (from a conversation with H. S. Kostyuk): we should give a personality (an object of study) possibility to function and develop freely according to its own laws, but at the same time we should purposefully give it such possibilities (natural and social) which can be empirically registered and verified.

As we have mentioned, the genetic-modelling method is not analysis proper. But as any scientific method it is sure to include an analytic component. Basing neither on solely sensual experience data, nor on merely empiric thought, but on the result of combining these two components with the third one – “exact fantasy” (or creativity), we should single out such conceptual units in integral personality, which would be *independent and self-sufficient*, would carry all the integrity in themselves and would provide its (this integrity’s) self-development and functioning. The latter is the main and essential: “a unit” of a self-developing and self-controllable system is fundamentally different from

those “units” which were determined by the experimental-genetic method. Metaphorically and at the same time absolutely exactly speaking, this unit must be living. Keeping to this means departure from reduction.

We should not forget that personality itself is an actual “unit” of human psyche existence and development. And in this role it cannot be further subdivided. Human psyche is personal, which means that any research of any partial process or phenomenon will be adequate only if the latter is regarded as an essential personality branch, only then it will become understandable (we should note that in psychology it does not go beyond a statement).

How can we determine conceptual personality “units” in analysis? Let us turn again to the “exact fantasy”: genesis, existence, manifestation, and self-development of personality is provided by a special and unique *biosocial force – the need. The need as a contradictory, flexible and energetic unity of biological and social, as an implementation and possibility of further eternal incarnation of human in human, as something that models and regulates personality movement, is an initial general unit – a carrier of human psyche personality nature.* In its “development” the need “meets” social and biological human environment factors and sets conceptual points – personality thesaurus units. These units are both structure nodes and personality development lines.

So, existence (functioning, development) of personality development separate lines (personality’s structure conceptual “nodes”) has very strict double conditionality – determinancy.

The general course of human need “meets” environment factors (biological or social). There appear the need’s branches – necessities, being realized they form some specific interfunctional systems. The systems are specialized but at the same time they remain parts and carriers of integrity (an analogy to human body tissues and organs). In this way personality integrated unity differentiation begins.

Thereby, the analytic part of the genetic-modelling method is aimed at singling out conceptual mobile units of genesis and self-modelling. Though it is vastly different from determining units within experimental-genetic method, we do not change the name of the first principle of our method – **1st unit analysis principle** (using logical-psychological analysis to study a contradictory unit – the need, which

abstractly contains the essence of whole: both biological and social in an undeveloped form).

According to our methodological paradigm, application of the genetic-modelling method will finally make it possible to “return a person to psychology”, as the method allows to analyze and integrate at the same time the initial system-forming personality source – the need as a unique unity of social and biological and as their activator. So, the method design is a primary and most topical problem. At present stage we have elaborated the main principles of its structure and application (the first of them – “unit analysis” – is described here).

Another important genetic-modelling method principle of personality study reflects its basic nature. It is the **principle of biological and social unity**. The status of a scientific method principle does not allow mere statement of this unity because in this case it will not be a principle. It is necessary to realize clearly: what does a unity mean?

While working at the problem of interrelation between biologic and social in personality, Stern in his day formulated the “convergence principle”. This principle stresses that no personality function or its quality can be determined whether it appears from the outside or from the inside. We should precisely find out what exactly emerges from the outside and what from the inside, as both take part in realization of personality function (although this role is not equal) However, this question is much more complicated, as we are convinced that this controversial interrelation of biologic and social should be viewed in two aspects – firstly, as factors that influence personality, and secondly, as factors that form personality, provide its existence and development “from the inside”. The first analysis aspect is a “personality-surrounding world” interrelation, where we can to some extent single out biologic (natural) and social factors proper.

Though the latter are never purely social, as all of them represent human (humanity) products, partially embodying not only social, but also biologic of that integral, biosocial being that created them. Considering biologic and social as something internal and personal, we should admit that we never view them separately. We depart from traditional understanding biologic as hereditary and bodily, as biologic and social factors “inside” of personality do not exist separately. Moreover, each of them represents the other. Any thought, image, idea

or need does not exist beyond biologic structures and organism functions. The opposite is correct as well – each body structure and biologic function is the display of human essence. It always comprises biologic, as well as social embodiment and psychosomatic phenomena, being intensively researched by modern science, prove this better than anything.

The principle of biologic and social unity reveals the essential source of personality activity nature. However, when psychology states that these sources are certain necessities, it is wrong. We can put a simple and pertinent question – where do necessities appear from? Besides, necessities cannot explain self-movement, self-development of the complex open system – personality. That is how the notion of spirit emerges, as a primary source of activity impossible to research within the modern science boundaries. And again the most important and curious facts elude psychological studies (by the way, the term “soul” in ancient Greece meant the source of activity).

We wish to underline that such initial primary source of personality activity exists in reality and can be researched scientifically. This is the need. V. V. Davydov pointed out: “The need is a deep basis of a necessity... The problem in this case is how this human need is transformed into corresponding necessity” Next it is pointed out that this has not been studied in psychology yet, and that is really so. V. V. Davydov views necessity in the context of activity (but not personality) as its important component. He does not even try to analyse its psychologic contents, pointing out that it is “a very difficult discussion topic of the future...”

We base our assumptions on the viewpoint that the need is initial energetic personality basis, which is biosocial in its nature. Personality ontogenesis begins much earlier than personality is born physically. Its beginning is embodiment of two loving individuals’ needs. As a result, there emerges a new form of need existence, which cannot exist without material medium (at least modern science does not know another way of biosocial need existence, except its existence as a social-biologic energy basis of human personality).

Keeping to the principle of biologic and social unity within the genetical-modelling method means studying ontogenesis from its actual beginning, researching the mechanisms of necessities emerging from the need. Generally speaking, it means considering personality

existence in any definite psychological research as establishing of initial biosocial unity that is able to self-develop.

The next important principle of building the genetical-modelling method is the 3rd principle – **creativity principle**. “Meetings” of the need with numerous and various objects and phenomena not only beget necessities, but they also condition the aiming and development of unique means of aims attaining. This is, in fact, creativity. In his time A. Adler postulated the presence of special instance of personality – “the creative I”, providing human existence in accordance with their aims and wishes, as well as formation of one’s own life paths and styles

We use the term “creativity” exactly in this sense. Thus, we speak about creative personality uniqueness, which accompanies it during the whole life. The beginning of human life is a clear result of creative act, conducted by two loving creatures, objectifying their need. Any personality is the result and product of creativity, and the need embodied in it has a huge creative potential. In general, this potential is shown in its uniqueness, heterogeneity, self-actualization, and self-sufficiency. Real mysterious character and uniqueness of human consciousness is its ability to model and self-model. This leads to an absolutely original correlation of the past, present and future in human conscience. This conscience is a self-modelling, appropriating ability that models further existence of a human being.

Creativity is a deep, initial and absolutely natural feature of personality that is the highest form of activity. Activity, which creates and leaves its marks, is embodied. On the other hand, creativity means aspiration for expressing one’s inner world. When O. F. Losev names expression one of personality attributive signs, he precisely determines that it is also the act of this world creation.

To keep to the creativity principle in personality analysis and research means to “take” its existence in general, in its unique directed unity, which is the only form of its existence. This also means taking into consideration personality multivalent nature, its unexpectedness and unpredictability. On the other hand, it means to realize that not everything can be definite and predictable. All that we try to obtain from modern experiments is not even a case, but a real artefact. Unfortunately, this is the main drawback of personality psychological research. The latter aspect seems the most important to us primarily from the methodological viewpoint. That is why we formulate **the**

fourth principle – the principle of reflexive relativity, which fixes fundamental impossibility to estimate precise measures and to fix finally higher unique-creative personality manifestations.

Self-determination enables people to sense all displays and qualities of life through its own need. Reflection is created as the most interesting and mysterious result of the need meeting human life. Moreover, it makes this life deeply original and shows people the never-ending resources of self-modification at any moment.

In general, this phenomenon is well-known, because even F. M. Dostoevsky used to persistently express his ideas about the depth and unpredictability of “a real solid personality” of each human. However, scientific longing for pragmatic schematization leads to a very simplified idea of human personality. Relativity principle warns us against sketchiness and shallow forecasts, because our knowledge is, and has always been limited. We know for sure only about the presence of reflexive-creative human potential, as well as infinity of its display. Due to this we are able to assess real narrowness and unfoundedness of personality modelling attempts. We can grasp the real depth of suffering felt by those, who either manipulate others, or are being manipulated.

At the same time, **creativity and relativity principles** show the real essence of subjectivity phenomenon. According to it, the need in ontogenesis is being sort of ramified. A part of it functions the way it used to in early childhood when life flow and human vitality are provided beyond any given person’s will. The other “branch” of the need is directed solely at meeting the social world. These meetings beget higher mental functions, purposefulness, passion of the inner world, and creativity. This is the way a subject of activity is born.

And, finally, the fifth principle of the genetical-modelling method of personality research is the **unity of experimental and genetic developmental lines**. We consider it to be a rather significant characteristic not only for our method, but for the general state of events in culture-historical theory. In his work devoted to developing basic propositions and research methods, L. S. Vygotsky brilliantly foresaw certain difficulties connected with the fact, that researching higher function psychology in its formation leads to a fundamental (and sacred) question, whether the given function is formed this very way beyond experimental-genetic method, under the so-called “natural” conditions To put it differently, we study what we have formed. But can

it go without our interference? Unfortunately, this sharp question was not noticed by his followers, as in the meantime psychology became “formational”, and forming experiment is now a crucial element of theses. But as we remember (?), science has to study certain object by its logics, instead of using researcher’s own logics in the object, created by himself. This topic did not receive necessary attention. But how actual will it become when “a human returns to psychology”? In this case the most important question can be the one, which presently lacks attention: when mediated memory of a child is formed artificially and is studied in a “rooting-appropriating” way the child himself exists and develops as a unity. We study the discreet moment about how it is rooted and appropriated, but what is happening with the child and his other functions at this very moment? We can put a cardinal question: what is happening with other children who are not specially influenced?

This integral personality is brought into the foreground of the genetical-modelling research and we easily stick to the phenomenological trend once we understand that nothing can be “modelled” here (see **the creativity principle**) without altering the fragile process of **self-modelling and self-development**. So, is the description the only thing left? No. We are convinced that combination of this “naturally”-genetic developmental line with the experimental one is possible not by abilities formation-appropriation way but by creating in an experiment special conditions for developing and slowing down the integral analysis units formation. All this is supposed to happen against the background of various possibilities for self-modelling (which are nevertheless fixed).

4.9. Orthobiosis in Human Development

Orthobiosis is a theory developed by I.Mechnikov, about the possibility of a person to live a full natural cycle of life, which is practically not achieved due to the effects of various disharmonies of the structure and development of the organism and the contradictions of life in society.

The theory provides means of correcting the disharmony of human nature, overcoming psychological disharmony, and creating social conditions for mentalorthobiosis-the realization of the natural need for non-existence by a rational arrangement of human life. Segmentorthobiosis-it is a unit of need.

The interplay of genetics and psychology in shaping human development has long been a subject of intense research and debate. Genetic psychology, a discipline at the intersection of genetics and psychological science, seeks to understand how genetic factors contribute to psychological traits and behaviors. This field is particularly relevant to human development as it offers insights into the origins and evolution of individual differences in personality, cognition, and emotional regulation.

In exploring the intricacies of human development, the concept of orthobiosis emerges as a pivotal theme. Orthobiosis, originally a term in biology referring to the 'right' or 'healthy' way of life for an organism, has been adapted in psychological discourse to denote a state of optimal psychological and physiological functioning. It represents a harmonious balance where an individual's development and behavioral expressions align well with their genetic predispositions and environmental conditions. This concept is instrumental in understanding the development of personality traits, as it encapsulates the ideal trajectory of growth and maturation free from pathological extremes.

This part aims to delve into the complex dynamics of orthobiosis in the context of human development, particularly focusing on the development and pathologization of personality traits. We will explore how genetic psychology informs our understanding of personality traits – from their genesis to their full expression – and how these traits can sometimes veer off the path of orthobiosis, leading to pathological conditions. The part is structured to first define and contextualize orthobiosis in human development, followed by an examination of the genetic underpinnings of personality traits. We will then discuss the nuances of pathologization of these traits, culminating in an analysis of the interplay between genetic predispositions and environmental influences. This exploration aims not only to contribute to academic discourse but also to provide practical insights for clinical applications and everyday understanding of human behavior.

Orthobiosis and Human Development

Orthobiosis in Psychological Development. Orthobiosis, in the realm of psychological development, refers to the ideal trajectory of growth wherein an individual's psychological and physical aspects develop in

harmony with their genetic potential and environmental circumstances. It is a state where development is not just absent of pathology, but also enriched by a congruence between an individual's innate predispositions and their life experiences. This concept aligns with the biopsychosocial model, emphasizing that optimal development is a product of the complex interplay between biological, psychological, and social factors. In orthobiosis, psychological development is characterized by adaptive coping mechanisms, resilience, and the ability to achieve a balanced and fulfilling life, reflecting both the genetic blueprint and the nurturing environment.

Orthobiosis Across Life Stages. The manifestation of orthobiosis varies across different life stages, reflecting the dynamic nature of human development. In early childhood, orthobiosis might be observed in the successful achievement of developmental milestones, such as language acquisition, emotional regulation, and social interaction, that are congruent with both genetic potentials and nurturing environments. During adolescence, it may involve the harmonious navigation of identity formation and the establishment of autonomy, influenced by both inherited traits and social experiences. In adulthood, orthobiosis is often seen in the ability to form healthy relationships, pursue meaningful careers, and adapt to life changes, suggesting a well-integrated personality and coping style. The concept of orthobiosis extends into later life, emphasizing the importance of maintaining cognitive and emotional flexibility, social connectedness, and physical health.

The Ideal State of Psychological and Physical Health. The ideal state of health in orthobiosis is not merely the absence of illness but represents a higher level of well-being and functioning. Psychologically, it entails a robust sense of self, emotional stability, and the capacity for complex and adaptive thinking. Physically, it involves maintaining a state of health that supports and enhances psychological well-being. This ideal state is characterized by a synchrony between one's genetic endowments and environmental opportunities. It implies that an individual is not only genetically predisposed to certain traits and capacities but also has access to environmental resources that allow these traits to be expressed and developed optimally. The ideal state of orthobiosis is, therefore, a dynamic equilibrium where psychological and physical health are interdependent and continuously influenced by both internal genetic programming and external environmental conditions.

The Development of Personality Traits

Genetic Basis of Personality Traits. The quest to understand the origins of personality traits leads us to the complex world of genetics. Research in behavioral genetics has provided substantial evidence that genetic factors play a significant role in shaping personality. Twin studies, for instance, have consistently shown that identical twins, who share 100% of their genes, are more similar in personality than fraternal twins, who share about 50% of their genes. These findings suggest a genetic influence on traits such as extraversion, neuroticism, agreeableness, conscientiousness, and openness to experience, commonly known as the "Big Five" personality traits.

However, it's important to note that there is no single gene responsible for any specific personality trait. Instead, personality traits are polygenic, meaning they are influenced by multiple genes, each contributing a small effect. Furthermore, recent advancements in genome-wide association studies (GWAS) have begun to identify specific genetic variants associated with these traits, adding to our understanding of the biological underpinnings of personality.

Nature and Nurture in Personality Development. The development of personality is not solely dictated by genetics; environmental factors play a crucial role as well. The nature versus nurture debate has evolved to acknowledge that personality is a product of the interaction between genetic predispositions (nature) and environmental influences (nurture). This interactionist perspective suggests that while genetic factors provide the potential for certain traits, environmental factors, such as parenting styles, cultural background, life experiences, and social interactions, shape the actual development and expression of these traits.

One compelling illustration of this interplay is the concept of gene-environment correlation, which proposes that our genes influence the environments we are exposed to. For example, a genetically predisposed extravert may seek out more social interactions, further developing social skills and reinforcing extraverted tendencies. Additionally, the concept of gene-environment interaction highlights that the same environmental factor can have different effects on individuals depending on their genetic makeup.

Development of Personality Traits Across the Lifespan. Personality traits, although relatively stable, do undergo developmental changes

across the lifespan. Research indicates that certain traits, such as emotional stability and agreeableness, tend to increase with age, while others, like extraversion and openness to experience, may show more variability.

In childhood, traits are initially shaped by genetic predispositions but are heavily influenced by the immediate environment, including family dynamics and early social experiences. During adolescence, the search for identity and increasing social and cognitive maturity further shape personality. In adulthood, experiences such as career choices, relationships, and life challenges contribute to the refinement and adaptation of personality traits. In later life, personality continues to evolve, often showing increased emotional regulation and resilience.

Understanding the development of personality traits across the lifespan not only enriches our comprehension of human nature but also underscores the ongoing interaction between genetic predispositions and environmental factors in shaping who we become.

Pathologization of Personality Traits

The Thin Line Between Unique Traits and Pathological Extremes. Personality traits exist on a continuum, with each trait representing a range from low to high. While variations in these traits contribute to the rich tapestry of human individuality, there exists a critical threshold where these traits can become maladaptive or pathological. This transition from normality to pathology is often subtle and complex. For instance, a high degree of conscientiousness is generally viewed positively, associated with reliability and thoroughness. However, at its extreme, it can manifest as obsessive-compulsive personality disorder, characterized by perfectionism, inflexibility, and an overwhelming need for control.

Understanding this thin line is crucial in psychology and psychiatry, as it helps differentiate between personality styles and personality disorders. It involves considering not just the intensity of the traits but also their impact on an individual's functioning and quality of life. A key factor in this consideration is the concept of distress and impairment. When a personality trait leads to significant distress to the individual or impairs their social, occupational, or personal functioning, it may be indicative of a pathological state.

Genetic Predispositions and Personality Disorders. Genetic predispositions play a significant role in the vulnerability to personality disorders. Studies involving families, twins, and adoption scenarios have revealed that genetic factors contribute to the risk of developing personality disorders. For example, research suggests a heritable component in disorders like borderline personality disorder and antisocial personality disorder.

However, it's important to note that possessing a genetic predisposition does not guarantee the development of a disorder. Instead, it increases susceptibility, which, when combined with specific environmental factors, can lead to the disorder's manifestation. This interplay aligns with the diathesis-stress model, which posits that a predisposition (diathesis) interacts with environmental stressors to result in a disorder. The nature of these environmental factors can vary widely, including traumatic experiences, family dynamics, and broader social and cultural contexts.

Case Studies Illustrating the Pathologization of Specific Traits. To better understand the pathologization of personality traits, examining real-world case studies can be illuminating. One such case might involve an individual with a genetic predisposition for high neuroticism, a trait characterized by emotional instability and a tendency towards anxiety. In a supportive environment, this individual might exhibit a heightened sensitivity and emotional depth. However, under chronic stress or in a neglectful or abusive environment, this trait could escalate to a clinically significant level, potentially leading to the development of anxiety disorders or depression.

Another case could involve a person with a genetic inclination towards extraversion. In a nurturing environment, this trait might manifest as charisma and a strong social network. However, in an environment with poor social boundaries or substance abuse, this same trait could predispose the individual to risk-taking behaviors or substance use disorders.

These case studies highlight the delicate balance between personality traits and their potential pathological outcomes, emphasizing the importance of considering both genetic and environmental factors in understanding and addressing these issues.

Genetic and Environmental Contributions

Examining Genetic Factors in Personality Development and Pathologization. The influence of genetics on personality development and its potential pathologization is a cornerstone of genetic psychology. Advances in genetic research, particularly in the field of behavioral genetics, have elucidated how specific genetic variations are associated with personality traits. For instance, variations in genes like the serotonin transporter gene (5-HTTLPR) have been linked to traits such as neuroticism and susceptibility to depression under stress.

Genetic predispositions, however, do not operate in isolation. They set the stage for potentialities in personality development but require environmental triggers or conditions to fully manifest in either adaptive or maladaptive forms. This perspective is crucial in understanding the complex etiology of personality disorders, where genetic vulnerability interacts with environmental experiences to produce a range of personality outcomes.

Impact of Environmental Factors. While genetics provide a blueprint, it is the environment that shapes the construction. Environmental factors play a critical role in the development of personality traits and their potential pathologization. These factors include a wide array of influences, from early childhood experiences, such as attachment styles and parenting, to broader socio-cultural contexts.

For example, a nurturing and supportive environment can buffer genetic vulnerabilities, allowing for the development of resilience and adaptive personality traits. In contrast, adverse experiences like trauma, abuse, or chronic stress can trigger the expression of maladaptive traits in genetically predisposed individuals. Cultural factors also influence personality development, as societal norms and values shape behavioral expressions and may define the threshold between normal and pathological traits.

Current Research Findings in the Nature vs. Nurture Debate. The longstanding debate of nature versus nurture in personality psychology has evolved into an understanding of their intricate interplay. Current research emphasizes that personality development is neither solely the product of genetic programming nor exclusively molded by environmental factors. Instead, it is the result of the dynamic interaction between these elements.

Emerging research, utilizing methods like genome-wide association studies (GWAS) and longitudinal studies, underscores this interaction. For instance, studies have shown how environmental factors can modulate gene expression (epigenetics), thereby influencing personality development. Additionally, research on gene-environment interactions has provided insights into how specific genetic profiles may increase sensitivity to environmental influences, and vice versa.

This nuanced understanding challenges the simplistic dichotomy of nature and nurture, suggesting a more integrated approach. It highlights the complexity of personality development and the need for multifaceted perspectives in both research and clinical practice.

This part has explored the multifaceted and intricate nature of personality development through the lens of genetic psychology, emphasizing the concept of orthobiosis, the interplay of genetic and environmental factors, and the pathologization of personality traits. The discussion highlights several key insights and implications that emerge from this exploration.

Firstly, the concept of orthobiosis underscores the importance of viewing personality development as a dynamic and integrative process. It prompts a shift from a pathology-focused perspective to a more holistic understanding of psychological and physiological health. This approach can have significant implications for clinical practice, encouraging a more nuanced assessment of personality traits and their development, rather than a strict categorization of normal versus abnormal.

Secondly, the interplay of genetic and environmental factors in personality development and pathologization challenges simplistic explanations of human behavior. It underscores the need for a comprehensive approach in psychological assessment and intervention, considering both the genetic predispositions and the environmental contexts of individuals. This perspective is particularly relevant in the field of psychotherapy and counseling, where understanding the client's background in terms of both nature and nurture can lead to more effective and personalized interventions.

Moreover, the discussion of genetic factors and environmental influences in the context of personality traits raises important considerations for research. It highlights the need for continued exploration in the field of behavioral genetics and the importance of

longitudinal studies that can track the development of personality traits over time. Such research is crucial for advancing our understanding of how genetic predispositions interact with life experiences to shape personality.

The part also emphasizes the importance of cultural sensitivity in understanding personality development. Cultural factors can greatly influence the expression of personality traits and the perception of what is considered normal or pathological. Therefore, a culturally informed approach is essential in both research and clinical practice, ensuring that assessments and interventions are relevant and respectful of diverse backgrounds.

In conclusion, the exploration of genetic psychology in the context of personality development offers valuable insights into the complex nature of human behavior. It challenges us to consider the intricate dance of genetics and environment, leading to a more nuanced and compassionate understanding of individual differences. This perspective not only enriches psychological theory but also has practical implications for therapy, education, and social policy, promoting a more empathetic and holistic approach to human development.

This part has undertaken a comprehensive exploration of the development of personality traits through the lens of genetic psychology, with a specific focus on the concept of orthobiosis. Our journey through this complex terrain has revealed the intricate interplay between genetic predispositions and environmental influences in shaping human personality. The discussion has underscored the importance of understanding this dynamic interplay to fully appreciate the spectrum of human behavior and personality development.

One of the key takeaways from this exploration is the recognition of the continuum on which personality traits exist. The transition from normal personality variations to their pathological extremes is often subtle and influenced by a myriad of factors, both genetic and environmental. This understanding challenges the traditional dichotomy of normal versus abnormal, urging a more nuanced perspective in both clinical assessment and psychological research.

Moreover, the concept of orthobiosis has emerged as a critical framework in understanding optimal human development. It prompts a shift from a solely pathology-focused view to a more holistic

understanding of psychological and physical health. This approach has significant implications for clinical practice, emphasizing the need for a comprehensive assessment that takes into account both the genetic blueprint and the environmental context of individuals.

Additionally, this part has highlighted the ongoing nature of the nature versus nurture debate in personality psychology. The current consensus leans towards a synergistic model, where both genetic and environmental factors are essential in understanding personality development. This model encourages continued research and exploration in the field, particularly in longitudinal studies and cross-cultural research, to further our understanding of these complex dynamics.

In conclusion, the study of personality development within the framework of genetic psychology offers invaluable insights into human behavior. It is a field that continually evolves, shaped by ongoing research and changing societal contexts. As we deepen our understanding of the interplay between genetics and environment, we pave the way for more effective interventions, informed policies, and a broader comprehension of the diverse tapestry of human personality.

So, we have the multifaceted and complex nature of personality development through the lens of genetic psychology, emphasizing the concept of orthobiosis, the interaction of biological and environmental factors, and the pathologization of personality traits. Such a problem addresses us to the need to define the meaningful "units" of the personality. Turning to "exact fantasy" at the level of scientific abstraction, we can note that the genesis, existence and self-development of an individual are provided by a biosocial phenomenon – need. Need as a contradictory, mobile and energetic unity of the biological and social, as an embodiment and the possibility of the further endless embodiment of the human into the human, as that which models and realizes the movement of the individual, and is the original universal unit – the carrier of the personal nature of the human psyche. In its "unfolding", the need "meets" the social and biological factors of a person's environment and sets meaningful points – units of the personality thesaurus. They, these units, are both nodes of the structure, and at the same time, lines of personality development.

We proceed from the fact that need is the original welcoming beginning of the individual, biosocial in nature. Modern psychological science knows no other way of existence of a biosocial need than its

existence as a sociobiological foundation of a person's personality. Within our scientific school of genetic psychology, the following attributive signs of need have been systematized at the level of methodology and empirical explanations.

The first attributive meaningful feature of a need is its heterogeneity: the biological and the social here initially form a contradictory, but absolutely inseparable unity.

The second attributive property of a need is its ability to develop (self-development). Analysis of the phylo- and ontogenesis of a living being proves, as already indicated, that the endless flow of needs, its self-development is not random and chaotic. It has direction. And it is aimed at constant complication and increased integration. This movement ends with the "coming out" of the need to the position of being able to realize itself (reflection). But we can responsibly say that this is not a valid final stage of the formation of need: humanity simply arose at this stage and the need reflected itself. But the movement continues... Thus, the third attributive sign of need is that its development is directed and represents orthogenesis.

The fourth important attributive property of a need is its ability to generate. This creative quality is manifested in everything related to life, and it is, indeed, a true miracle (O.F.Losev). But we will stop here on the most important. The meeting of two branches of need embodied in living creatures of different sexes creates a qualitatively new need (informationally and energetically new), which continues in the existence of a new living being. This act is the only integral objectification of need in living nature. If we talk about a person, we encounter a "second" reality: a person's need can create both a new person and a qualitatively new product (creativity).

The fifth attributive property of need is that it exists only in the form of embodiment in a living being generated by it.

The sixth attributive property of need should be considered its affiliative nature.

Finally, it should be noted that the seventh important attribute of need is the infinity of its existence. Complete (finite) is the existence of the organism, the personality as carriers and the embodiment of need, the need continues its existence and is infinite in time. It seems to us that the analysis of this attributive property will, among other things, reveal new aspects of the meaning of time in life.

The listed attributive properties of a need outline (albeit schematically for now) its nature. In particular, we see a fundamental difference in our understanding compared to the viewpoint of Jung and other scientists.

The materials in this chapter highlight several key findings and implications.

First, the concept of orthobiosis emphasizes the importance of considering personality development as a dynamic and integrative process. This encourages a shift from a perspective focused on pathology to a more holistic understanding of psychological and physiological health. Such an approach may have significant implications for clinical practice, encouraging a more nuanced assessment of personality traits and their development rather than strict categorization of normal and abnormal.

Secondly, the interaction of genetic and environmental factors in the development and pathologization of personality challenges simplified explanations of human behavior. This highlights the need for a comprehensive approach to psychological assessment and intervention that takes into account both the genetic predisposition and the environment of individuals. This perspective is particularly relevant in the field of psychotherapy and counseling, where understanding the client's background in terms of both nature and nurture can lead to more effective and personalized interventions.

In addition, the discussion of genetic factors and environmental influences in the context of personality traits raises important questions for research. It emphasizes the need for continued research in the field of behavioral genetics and the importance of longitudinal studies that can track the development of personality traits over time. Such research is critical to advancing our understanding of how genetic predisposition interacts with life experiences to shape personality.

The importance of cultural sensitivity in understanding personality development should also be mentioned. Cultural factors can strongly influence the expression of personality traits and the perception of what is considered normal or pathological. A culturally informed approach is therefore essential in both research and clinical practice, ensuring that assessments and interventions are relevant and respectful of diverse backgrounds.

In conclusion, the study of genetic psychology in the context of personality development offers valuable insight into the complex nature of human behavior. It prompts us to consider the complex dance of genetics and environment, leading to a more nuanced and compassionate understanding of individual differences. This perspective not only enriches psychological theory, but also has practical implications for therapy, education, and social policy, promoting a more empathic and holistic approach to human development.

Therefore, a comprehensive study of the development of personality traits through the prism of genetic psychology places special emphasis on the concept of orthobiosis. As you can see, a psychologist must understand the complex relationship between genetic predisposition and the influence of the environment in the formation of a human personality. This highlights the importance of understanding this dynamic interaction for a full understanding of the spectrum of human behavior and personality development.

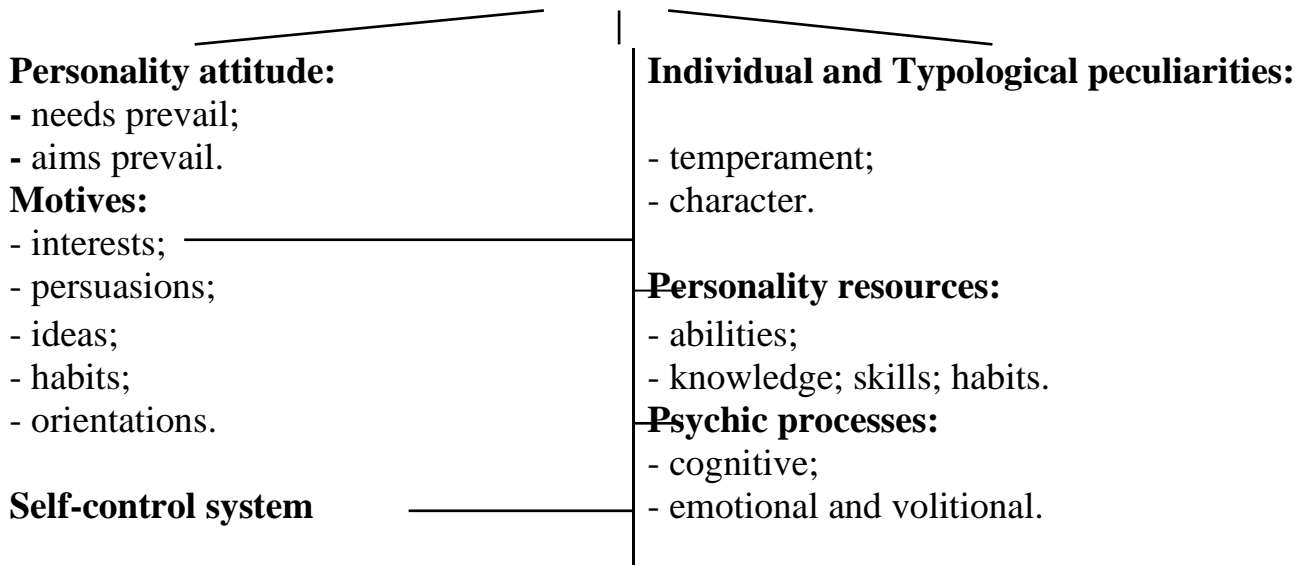


One of the key findings of this study is the recognition of a continuum in which personality traits exist. The transition from normal personality variations to their pathological extremes is often subtle and depends on a multitude of factors, both genetic and environmental. This understanding challenges the traditional normal-abnormal dichotomy, encouraging a more nuanced perspective in both clinical assessment and psychological research.

Theme Key Notions

☞ Personality, individuality, biological substructure, peculiarities of social experience, attitude, activity, motive, interest, persuasion, ideal, habit, orientation, aim, aspirations level, self-esteem, frustration, driving forces of personality development, the biogenetic law of development, the socio-genetic law of development.

PSYCHOLOGICAL PERSONALITY STRUCTURE



Questions for Individual Work

1. What are the basic personality signs?
2. In what way does the social personality essence evince?
3. What is in personality caused by the biological nature?
4. In what way does the biological vital functions evince in personality ?
5. In what way are the notions «personality» and «individuality» correlated?

6. Characterize the personality structure.
7. What is the essence of the S.Freud's activity theory?
8. What is fundamental motive power of human activity?
9. What is personality attitude?
10. What are the basic groups of personality motives?
11. What are personality aims divided into?
12. What way are personality self-esteem and the level of solicitations interconnected in?
13. What is the source and personality development driving force?
14. Which factors cause the psychic personality development?

Alternative Test Tasks for Self-Control

1. Do you agree with the idea, that every person can be a personality?
2. Do you agree with the assertion, that there is no great difference between the notions «personality» and «individuality»?
3. While characterizing personality is it enough to point out such signs as: «conscious individual» and «involved into social useful activity»?
4. Does the biological aspect always display as social in human psyche life?
5. Can one understand person's attitude as the display of all the aspirations typical of it?
6. While characterizing interest is it enough to indicate that it is person's selective steady attitude towards the reality phenomena and objects?
7. Is the following statement sufficient or not: «Convictions belong to knowledge which truth is indisputable for person and which are considered to be a guide to his or her action»?
8. Is it possible to affirm, that personality big and remote vital aim characterizes its essence?
9. Does a person with adequate self-esteem have the state of frustration?
10. Is the following statement sufficient or not: The various contradictions which are caused by personality activity and life conditions are considered to be the source and driving force of personality development?
11. Is it possible to speed up personality psyche development?

Tasks and Problem-Solving Situations

1. According to which external personality signs can one make the conclusion about the level of its development and social consciousness?
2. What is the principle difference between the views of the representatives of different psychological theories on the origin of personality activity?
3. In what way can one substantiate psychologically the assertion that interest appears both as an important teaching motive, and as a method of arise of its effectiveness?
4. While analysing personality needs how can one deduce about the level of his or her individual and social consciousness?
5. Is the state of frustration quite normal consequence of personality too high solicitations?
6. What are the negative and positive influences of orientations in human life? Is it possible to form them purposefully and in what way in particular?

Used and Suggested Literature

1. Загальна психологія: Підруч. для студентів вищ. навч. закладів/ За загальн. ред. акад. С.Д. Максименка. – К.: Форум, 2002.
2. Ковалев А.Г. Психология личности. К.: Просвещение, 1970.
3. Максименко С.Д. Общая психология. – М.: Рефл-бук, К.: Вак-лер, 2001.
4. Максименко С.Д. Развитие психики в онтогенезі. Моделювання психологічних новоутворень: генетичний аспект. – К.: Форум, Т.2, 2002.
5. Макименко С.Д. Развитие психики в онтогенезі: Теоретико-методологічні проблеми генетичної психології. – К.: Форум, Т. 1, 2002.
6. Максименко С.Д. Психология особистості. – К., 2007.
7. Максименко С.Д., Носенко Е.Л. Експериментальна психологія (дидактичний тезаурус): Навч. посібн. – К.: МАУП, 2002.
8. Максименко С.Д., Щербан Т.Д. Професійне становлення молодого вчителя. – Ужгород: Закарпаття, 1998.
9. Психологія / За ред. Г.С. Костюка. – К.: Рад. школа, 1968.
10. Sergey Maksymenko. General Psychology. – Vinnytsya, 2005.
11. S.D. Maksymenko/ Psychological nature of the personality. – К, 2007.

12. Максименко С.Д., Назар М.М. Построение проукраинских ментальных карт для обеспечения информационной безопасности граждан Украины (Часть первая). Fundamental and applied researches in practice of leading scientific schools. Issue: 4 (10): Psychology. Economics / Ed. by S. Maksymenko, V. Lunov, A. Hall. Co-pub. Publishing office: Accent Graphics Communications – Hamilton, ON, 2015. P. 88-108.
13. Максименко С.Д. Теорія і практика психолого-педагогічного дослідження. – К.: КДІП, 1990. 240 с.
14. Максименко С.Д. Основи генетичної психології. – К., 1998. – 218 с.
15. Максименко С.Д. Общая психология. – М. – К.: Рефл-бук, Ваклер, 1999. 528 с.
16. Максименко С.Д. Загальна психологія. – К.: Форум, 2000. 543 с.
17. Максименко С. Д., Соловієнко В. О. Загальна психологія: навч. посібн. 2-ге вид., стереотип. Київ: МАУП, 2001. 256 с.
18. Максименко, С. Д. (2002). Розвиток психіки в онтогенезі: Теоретико-методологічні проблеми генетичної психології (Т. 1). Київ: Ваклер.
19. Максименко.С.Д. Загальна психологія. – Вінниця: Нова книга, 2004. 701 с.
20. URL : <https://psycholing-journal.com/index.php/journal/part/view/715>
21. Максименко С. Д., Максименко К. С., Папуча М. В. Психологія особистості: підручник. Київ: ТОВ «КММ», 2007. 296 с.
22. Sergiy D. Maksymenko, Mykola V. Yevtukh, Yaroslav V. Tskekhmister, Kseniia S. Maksymenko, Olena O. Lazurenko. Psychology and Pedagogics: Text-book.- K.: Publishing house 'Slovo', 2012.-520 p.
23. Maksymenko S.D. (2015). Genesis of Personality Existence: monography. Montreal: Accent Graphics Communication
24. Максименко С.Д., Орап М. Psycholinguistic Predictors of Health (Психологічні предикатори здоров'я) // Psycholinguistics. – 2018. – №24(1) –Р. 252-268.
25. Максименко С., Ткач Б., Литвинчук Л., Онуфрієва Л. (2019). Нейропсихолінгвістичне дослідження політичних гасел із зовнішньої реклами. Психолінгвістика. Психолінгвістика.

Psycholinguistics, 26 (1), 246–264. DOI 10.31470/2309-1797-2019-26-1- 246-264.

26. Maksimenko S.D., Serdiuk L. Psychological Potential of personal self-realization. *Social Welfare. Interdisciplinary Approach*, 6(1), 93-100

27. Maksymenko, O. Lysenko Modern methods of diagnosing virtual addiction among adolescents: relevance and prospects. Монографія/ за ред. Аніти янковської, Riga, Latviaa,: IZDEVNICIBA BALTIJA PUBLISHING, 2019.С.-394-410

28. Maksimenko S.D. Principles of website design for professional psychological diagnosis in different specialities. *Information Technologies and Learning Tools / Institute of Information Technologies and Learning Tools of NAES of Ukraine.* –2019. – Vol. 73., № 5. – P. 284-294.

29. Максименко С.Д., Костюк О.В., Максименко К.С., Немеш О.М., Луньов В.Є. Мультилінгвістичний дискурс невротизації майбутніх лікарів: монографія. Київ: “Видавництво Людмила”, 2020. 171 с

30. Максименко С.Д. Психологічні особливості розуміння студентами Інтернет-текстів, *Psycholinguistics.*–2020. – Vol. 28(1),– P. 95-105.

31. Maksymenko, S.D.(2021) Genetic principles of creative personality confident as a propulsion of mental development. Ottawa: Accent Graphics Communications and Publishing. Glasgow: Society for the support of publishing initiatives and scientific mobility Limited.-615 р.

32. Максименко С.Д., Я.В. Руденко, А.М. Кушнерьова, В.М. Невмержицький. Психічне здоров'я особистості: посібник для вищих навчальних закладів. Київ: “Видавництво Людмила”, 2021. 438 с.

33. Максименко С.Д., Яланська С.П. Генетико-креативний підхід: діяльнісне опосередкування особистісного розвитку: монографія. Київ: “Видавництво Людмила”, 2021. 508 с.

34. Максименко С.Д., Піроженко Т.О., Пророк Н.В., Папуча М.В. Психологічний портрет особистості дитини: вікові періоди Київ: “Видавництво Людмила”, 2021. 104 с.

35. Maksimenko S.D. Features of the components of students' psychophysiological readiness to work as teachers, *Idōkan Poland*

Association "IDO MOVEMENT FOR CULTURE. Journal of Martial Arts Anthropology", Vol. 21, no. 2 (2021), pp. 11–18

36. Максименко С.Д., Руденко Я.В. Мультипсихологінчий дискурс вокалотерапії психосоматичних розладів особистості: монографія / С.Д. Максименко, Я.В. Руденко. Київ: «Видавництво Людмила», 2021. 904 с.

37. Максименко С., Деркач Л., Кіричевська Е., Касинець М. Психологія когнітивних проців: науковий посібник / Національна академія педагогічних наук України, Інститут психології імені Г.С. Костюка. Київ: «Видавництво Людмила» 2022. 420 с.

38. Maksymenko S.D., Viktor Burlaka , Oleksii Serdiuk, Jun Sung Hong , Lisa A. O'Donnell, Vitalii Panok and others. Child Internalizing Problems in Ukraine: The Role of Prosocial and Antisocial Friends and Generalized Self-Efficacy/ Societies 2022, 12, 144.

39. Максименко С.Д., Ірхін Ю.Б., Деркач Л.М., Марусинець М.М., Касинець М.М. Психологічна організація модульного формування когнітивних здібностей: генетико-креативний підхід: навчальний посібник. Том 1. Київ: «Видавництво Людмила», 2023. 384 с.

40. Максименко С.Д., Ірхін Ю.Б., Деркач Л.М., Марусинець М.М., Касинець М.М. Психологічна організація модульного формування когнітивних здібностей: генетико-креативний підхід: навчальний посібник. Том 2. Київ: «Видавництво Людмила», 2023. 356 с.

41. Максименко С.Д. Медична психологія: підручник / за редакцією академіка С. Д. Максименка. Том I. Київ: «Видавництво Людмила», 2023. 458 с.

42. Максименко С.Д. Медична психологія: підручник / за редакцією академіка С. Д. Максименка. Том 2. Київ: «Видавництво Людмила», 2023. 520 с.

43. Maksymenko S.D., Lunov, Vitalii, Matiash, Mykhailo and Subbota, Spartak and Tolstoukhov, Anatolii, Ukrainian Syndrome: How Ukrainian Youth Understands the New Norm of Life and Relates to Leraing in face to 2022- Full-Scale Russian/ SSRN. –2023–№1 (January 15, 2023). –P. 1-10

44. Максименко С.Д., Ірхін Ю.Б., Деркач Л.М., Марусинець М.М., Касинець М.М. Психологічна організація модульного формування когнітивних здібностей: генетико-креативний підхід: навчальний посібник. Том 1. Київ: «Видавництво Людмила», 2023. 384 с.

45. Максименко С.Д., Ірхін Ю.Б., Деркач Л.М., Марусинець М.М., Касинець М.М. Психологічна організація модульного формування когнітивних здібностей: генетико-креативний підхід: навчальний посібник. Том 2. Київ: «Видавництво Людмила», 2023. 356 с.

46. Maksymenko S.D., Maksymenko K.S., Svitlana Yalanska, Nina Atamanchuk, Valeriy Zhamardiy, Vikoriia Donchenko Psychophysiological unloading with compliance taking into account: aeroariphythotherapy resource. Acta Balneologica. – 2023. – № LXV (2), P.98-104

47. Максименко С.Д., Деркач Л.М., Розуміння сучасної когнітивної війни в глобальному вимірі, її генезис в українському контексті: огляд та напрямки майбутніх досліджень. Оборона і стратегія. університет оборони БРНО. Випуск: Том 23, №1 (червень 2023). С.126-148

48. Maksymenko S.D. The Historical Sense of Psychological Crisis: Modern Understanding of Genetical-Psychological and Integrative Approach. SSRN. –2023–№ 3 (May 9, 2023). –P. 1-10

49. Максименко С.Д., Носенко Е.Л., Експериментальна психологія: Підручник для студентів. К.: Центр учбової літератури, 2023. – 360 с.

50. Максименко С.Д., Загальна психологія. Навч. посібник для студентів вищих навч. закладів. – Вид. 2-е, перероб. та доп. – К.: Центр навч. літератури, 2023. – 272 с.

51. Maksymenko, S., Ivashkevych, E., Kharchenko, Y., Tarnavska, O., & Sinjavskaja, N. Semantic and Pragmatic Meaning of Discursive Units in the Process of Communication of a Psychotherapist with a Client. PSYCHOLINGUISTICS, 34(1)2023, 129-172.

52. Максименко С.Д., Л.М. Деркач, Ю.Б. Ірхін. Диференційна психологія. Видання 2-ге, перероблене і доповнене: підручник/ за загальною редакцією академіка С.Д. Максименка. Київ: «Видавництво Людмила», 2024. 572 с.

53. Maksymenko, Serhii, Orthobiosis in Human Development: A Genetic Psychological Perspective on Personality Traits and Their Pathologization (January 29, 2024).

54. Генеза сучасної інформаційно-когнітивної (гібридної) війни в українському контексті та глобальному вимірі: наукове дослідження/ С.Д. Максименко, Л.М. Деркач. Київ: «Видавництво Людмила», 2024. 128 с.

55. Максименко С.Д. Методологічні принципи конструювання модульного психологічного супроводу і психічного здоров'я : навчальний посібник. Том. 1 / С.Д. Максименко. Київ: Видавництво Людмила, 2024. 718 с.

56. Максименко С.Д., Гришко О.Д., Психологічний супровід і психічне здоров'я: навчальний посібник. Том. 2 / С.Д. Максименко, О.Д. Гришко. Київ: Видавництво Людмила, 2024. 468 с.

Part 5

Social Groups

5.1. Concept of Groups

An individual lives, develops and acts in the group. The personality formation takes place in the collective and under its influence. Personality attitude is developed, social activity and will are formed, the conditions for his or her self-regulation and development of abilities are created. However, not every community of people can be called a social group. It is necessary to differentiate the term «**group**» from the term «**collective**». The group is any association of people irrespective of character of its members relations. Groups can be divided into big and small, real and conventional, formal, informal and referential ones.

Both **big and small groups** can be real or conventional ones. *Real groups* are collections of individuals on the basis of their members' relations. Thus, a school class, a family or a circle of acquaintances may be considered a real group.

Members of a **conventional (or symbolic)** group belong to it due to some symbolic feature (their age, gender, nationality etc.) Such group members do not have real contacts and may be not familiar with each other.

An **official (formal) group** is formed as a structural unit on the basis of staff regulations, instructions and other documents. A group of students, a family, a military sub-unit or a factory brigade are considered to be official groups. In the official formal group the members' formal relations are determined by their duties and regulated by the particular manager or administrative organ.

An **informal group** is a community of people, which appeared spontaneously on the basis of their members' mutual interests, likings, a common point of view, ideas or due to other motives. Thus, people who are friends, tourists-amateurs, or fishermen may be considered to be the members of informal groups.

A **referential (standard) group** is a real or imaginary group which points of view, norms and values are considered a model for a person according to which one can develop one's life ideals, compares one's

deeds and actions. A person can be a member of the group that is a referential group for such an individual at the same time.

Under these conditions the relations between group members are harmonized, the comfortable psychological atmosphere for the successful personality development in the certain direction is created.

A referential group is sometimes outside the real one for a person who is oriented towards the ideals, values and views. In such case another standard is a model for some other group. This fact can influence interpersonal relations in the group essentially, complicating relationships of group members. If a person is a member of several referential groups, this can lead to conflict states.

Individuals join groups in order to achieve common goals. In such cases group members have common interests, needs, and a desire to obtain sufficient results in mutual activity. A collective is the highest form of group organization.

A collective is a group of people united on the basis of their activity. The members of such group have common goals, which are subordinated to the society purposes.

Social importance of a group member goals and objectives is the essential feature of a collective. It allows to consider the collective to be the most important structural element of the social organism.

Realization of common socially important and personally significant activity contributes to the process of establishing and developing relations inside the collective. It helps to form collectivism as a special personality trait, a symbol which reveals its solidarity with goals and programs of collective activity, readiness for supporting and fulfilling them actively.

Human behavior, which is in conformity with collective activities, and aimed at their support, is considered to be a **collective** one. Personality behavior may be conformable. Conformity of one's behavior means that a person is adopting himself to the environment passively. This individual does not work out one's own active position. Instead of it, one tries to behave in accordance with other people's point of view, to comply with their requirements.

Conformism is such a form of behavior, which is characterized by formal accordance with the collective goals, but in fact they are divergent. Relationships between some members of groups and collectives are complicated and varied. They may be professional when

they are based on collaboration and common participation in realization of efficient affairs. Also they may be personal when contacts between group members are based on their mutual likings or antipathy, benevolence or animosity. Each personality has one's status in the system of interpersonal relations that is determined by one's personal qualities, popularity and influence.

5.2. Interpersonal Relations in Group

Interpersonal relations inside a group constitute the important aspect of its activity. Everyone, who works with people, must be good at interpersonal relations in group. These relations inevitably appear on the basis of communication and interrelations between members of a collective in the process of their practical activities. These relations appeared between the members of the collective on the basis of their communication and interaction in the process of realization the tasks to be carried out. The purposes of the very activity, its motives, the organization of collaborators' actions determine the relationships character in any group. Interpersonal relations are of a complex structure. This structure is influenced not by the objective factors only (such as the character of goals, conditions of their achievement, peculiarities of management, relations between group members) It is also influenced by the subjective factors (such as the level of the community members' consciousness, and their standards, the individual psychological peculiarities and abilities of group members etc.).

Observational learning is the basic method of the investigation of interrelations between members of collective. It gives the opportunity to study the key aspect of group activity, its structure, the degree of its development, and status of its members. Such methods as interviewing, questionnaires turn to be resultative when various opinions of group members in the framework of their interaction are investigated.

The effective method of efficient interpersonal relations study is **the sociometric method** introduced by American psychologist and microsociologist G. Moreno. In the procedure of sociometric choice, the group members are grouped according to their stated preferences; ie the reported attractions and repulsions they feel for one another. It is based on the principle of syntality that is based on emotional inclinations and likings, which appear between group members in the

process of their interaction. A typical sociometric test asks group members to list the persons they would like to do something with somebody and those they would least like to do something with. The procedure of sociometric analysis presupposes that each member of a group is asked a question "Who would you like to ...? This question may refer to any field of human activity. The criteria of the choice may be oriented towards some sufficient psychological personality traits such as one's moral principles, character strength, volitional and intellectual qualities, eg "Who would you like to make a reconnaissance with?", "Who would you like to help you to solve a conflict?", etc.

The criteria can be weak when they refer to the choice of a partner for entertainment, rest or providing psychological comfort. The questions may be the following: eg "Who would you like to have a rest with?", "Who would you like to sit at the desk with?". An interviewed person is given a possibility to show the degree of desirability of a person whom he chooses through such criteria as "the most desired", "desired", and "the less desired" person. The results of one's choice are put down in the sociometric matrix with their consequential analysis: the number of choices made on each group member is calculated.

The obtained information is systematized by means of mathematical analysis and represented graphically in the form of **sociogram**. The popularity of group members, their status may be expressed as follows: "**the stars**" – those who are most frequently chosen; "**the desired**" – those who had 3 or 4 choices; "**the less desired**" are chosen less frequently: they usually have 1 or 2 choices; so-called "**isolated**" members of the group are out of choice: no one wants to work with them. The representatives of the last subgroup are the subject to the higher social psychological risk. They need to be treated with particular care and understanding.

But the results of sociometric analysis are not fully informative. They do not always reveal motives, which determine the choice of the interviewed members. The model of the group as an emotional psychological formation, which is a basic one for sociometric analysis, does not allow us to analyze interpersonal relations between members of the group in a proper way on the basis of socially determined norms, value orientations, estimates. Thus, it is important to elucidate motives, which determine personality emotional (and also practical) choice, preferring one person for another while excluding others.

According to A. Petrovsky [12], this mechanism can be determined as a motivational core of interpersonal relations. It is proved experimentally that the motivational core of partners' choice in the structure of interpersonal relations can be a determiner of that level, which a group achieves as a collective. At the initial stages of its formation the group members are characterized by the natural emotional choice, oriented towards some vivid advantages of their partners – their attractive appearance, manners, sociability, etc. The members of groups with higher level of development make their choice not only on the basis of their first impression but due to the analysis of some personal traits, noticed in mutual social activity, in one's meaningful actions, outlook and beliefs.

The structure of a developed group is characterized by the hierarchy of its members' status that is determined by various socio-psychological factors. The most popular of them belong to the leaders' subgroup.

A leader is a person who enjoys recognition and authority in the group. The group recognizes one's right to take decisions in the most essential situations, organize their activities and regulate relations between group members.

A leader may be an official one who is appointed according to the regulations of the list of staff and performs duties of manager. Besides a leader may be also an unofficial person determined by the group for one's personal qualities and importance of functions he performs in the collective for its welfare. It's considered optimal variant when an official leader of a group is at the same time its unofficial leader. Under these condition leader's activity is realized most effectively and it reveals group psychological potential.

Under certain circumstances informal groups often appear. They also have their leaders as it often happens in school forms. When interpersonal relations between group members are submitted to the common goal, these informal leaders do not hinder fulfillment of the tasks set, but they help to solve problems. In case goals of informal groupings are not submitted to the common goal, the collective turns into the conglomeration of separate groups, in which not only leaders, but all the members may be opposed to each other. To avoid ruining and disintegration of the collective the pedagogue is to notice such processes in the group in time.

5.3. Psychological Compatibility and Conflict in Interpersonal Relations

Interpersonal relations are developed under real conditions of human life and activities in the process of interaction between people. Various objective factors influence these relations. These factors either determine success of such contacts or complete them. Thus, comfortable work conditions, necessary instruments of production, good work organization ensure favorable conditions for interaction between people. At the same time such psychological factors as attitude of people towards each other, their psychological willingness and practical readiness to collaborate; individual psychological traits influence effectiveness of such interaction. The subjective character of interpersonal relations reveals itself most of all in compatibility of people.

Compatibility is optimum matching of people's qualities in the process of their interaction that favors successful fulfillment of their common activities.

Psychologists differentiate between four kinds of compatibility. They are the following: physical, psycho-physiological, socio-psychological and psychological ones.

The physical compatibility becomes apparent in harmonious matching of physical qualities of two or more people, who are engaged into the same activity. Thus, the maximum productivity of physical work is possible under the conditions when people, who fulfill it, have the same strength and endurance. The criteria of choice according to the index of one's physical compatibility are rather widespread in sports, when teams are staffed (eg according to the weight category in weight-lifting).

The peculiarities of analyzers' systems and those of the nervous system are the basic ones for the **psycho-physiological compatibility**. This kind of compatibility presupposes successful interaction with people in such activities, which depend on sensitivity of analyzers' systems. Thus, work at a production line demands certain speed of operations performed by each of the workers. In the case when the psycho-physiological qualities of at least one of the workers do not correspond to this demand, the whole process will be disturbed or even broken. Two colour inspectors will not be able to continue their joint

work on tasting colour saturation, if they have a different degree of colour sensitivity. In this case temperament plays a great role for this kind of compatibility. It has been proved that people of two different temperaments interact successfully: eg choleric and phlegmatic persons sanguine and melancholic persons. People of the same temperaments interact less successfully (eg two choleric persons; two melancholic persons). At the same time as it was mentioned, people with opposite temperaments can not be involved into activity, which demands active nervous system of all the participants.

The socio-psychological compatibility presupposes interrelations of people who possess such qualities that are favorable for successful performance of their social roles. Their characters and abilities are not necessarily to be alike but they must be harmonious. The life experience proves that people with character traits, who supplement each other, are to establish contacts quicker. Their interaction turns to be stronger. Such people are the complement to each another, (eg an unbalanced, impulsive person and a self-controlled person; one person may be a theorist and another is a practical one).

It does not mean that only people with opposite character traits are compatible. Compatibility is possible in the case of coincidence of their character traits or other personal qualities. But possibility of ruining the community is higher under these circumstances.

The psychological compatibility presupposes common outlook, convictions, social and moral aims, values and attitudes, which make moral unity of people possible. The psychological compatibility, based on the above-mentioned factors, is the highest integrative level of compatibility that characterizes inner side of integration and determines its effectiveness.

In the case when group members, who perform social or personal significant activities, are incompatible, under the certain circumstances their incompatibility can cause a conflict.

Conflict is discrepancy that arises between people in the process of their social or personal activity. It is characterized by the degree of negative emotional feelings of its participants. Inner personal conflict displays itself in one's consciousness. Interpersonal conflict becomes apparent in interpersonal relations.

The intrapersonal conflict takes place when we observe one's clash of interests, needs and inclinations that are equally important, but

opposite to each other (eg the necessity to keep one's word opposed to impossibility to keep it because of one's temptation, which individual cannot resist).

The interpersonal conflict displays when group members have incompatible values and norms and try to realize them in common activities. Such conflict may appear while distributing functional duties between group members or while discussing the ways of solving common problems.

The intergroup conflict occurs between some social groups that have their own interests and interfere with each other's activities practically. This conflict can be caused by espionage, rivalry in fight for their certain influence zones.

Contradictions in interpersonal relations do not always lead to conflict: some of them can be overcome by means of agreement, consensus. Groups and collectives, which have sufficient collaboration experience, face fewer contradictions than newly developed ones. Due to their mutual cognition and adaptation they reach such level of compatibility when the danger of conflict is minimal inside the groups. Groups and collectivities, which are in the state of development, tend to have conflicts. Their reasons can be psycho-physiological and social-psychological incompatibility, difficult character of some group members, too high self-esteem, etc. Interpersonal relations based on friendship and common interests are seldom marked by incompatibility, which leads to conflicts when incompatibility, whatever the reason is, becomes apparent in relations between people, they are stopped for a while.

While completing groups with the purpose of executing difficult risky activity compatibility analysis is of vital importance for ensuring its safety and effectiveness. It is essential, for instance, when the crew members for space flights are chosen, also for the groups of mountaineers for climbing mountains, production brigades when the specific work conditions demand the high level of coordination in performing activities and essential moral and will qualities.

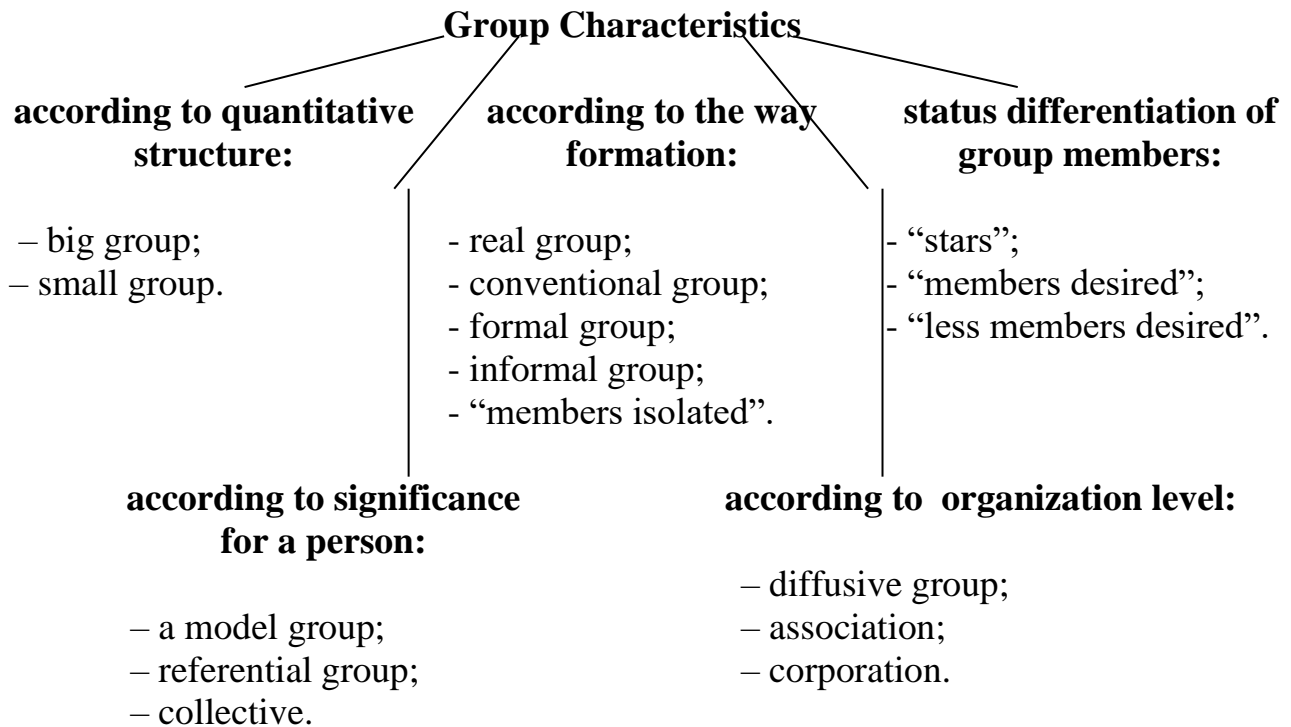
Theme Key Notions

☞ Group, real group, conventional group, referential group, formal group, informal group, conformism, status, leader, intragroup

differentiation, “stars”, “isolated members”, sociometric matrix, sociogram.

Formalized Structure of the Theme Contents

|| **A group** is a number of individuals united on the basis of certain signs.



Questions for Individual Work

1. According to what signs are groups subdivided into?
2. What group can be a referential one for a personality?
3. What are the characteristics of the groups of different organization degree?
4. What are the necessary characteristics of a collective?
5. What is the main difference between official and unofficial group leaders?
6. What determines status of a personality in the collective?
7. What is the essence of the sociometric method? What restrictions on the variant of such method were suggested by G. Moreno?
8. According to what sociometric scale is status of the group member personality determined?

Alternative Test Tasks for Self-Control

1. Is the following classification of groups true or false: a big group, a small group, a real group, a conventional group, a referential group, a formal group, an informal group, a collective?
2. Is a referential group always a model of behaviour and personal qualities for a person?
3. Does the status of formal leader influence real popularity of a person?
4. Are there any traits of character, which are necessary for a leader under any conditions?
5. While characterizing any collective are the criteria of group cohesion the same?
6. Is the following definition of a collective sufficient: "Collective is a group of people united in the process of common activity by common goals?"
7. Is conformism always characterized by incompatibility of real personality behaviour and one's inner position?
8. Is it possible to draw conclusions about group cohesion on the basis of the sociometric analysis results?

Tasks and Problem-Solving Situations

1. Can official change of a group member status influence one's unofficial status?
2. Can a group member get a status that does not meet the criteria of one's real value as a group member?
3. What is intragroup differentiation caused by? What factors influence it?
4. What psychological factors form personality referential group?
5. What factors determine criteria of leadership in different collectives?
6. What are the possible psychological deformations of personality caused by the process of being isolated for a long time?
7. What is the essence of psychologically based system of work with members of the collective who are isolated because of various reasons?

Used and Suggested Literature

3. *Загальна психологія: Підручник для студентів вищ. навч. закладів / За загальн. ред. акад. С.Д. Максименка. – К.: Форум, 2002.*

7. Максименко С.Д. Розвиток психіки в онтогенезі. Моделювання психологічних новоутворень: генетичний аспект. – К.: Форум, 2002. – Т.2.

8. Максименко С.Д. Розвиток психіки в онтогенезі. Теоретико-методологічні проблеми генетичної психології. – К.: Форум, 2002. -Т.І.

9. Максименко С.Д; Носенко Е.Л. Експериментальна психологія (дидактичний тезаурус): Навч. посіб. – К.: МАУП, 2002.

15. Психологія /За ред. Г.С. Костюка. – К.: Рад. школа, 1968.

16. Sergey Maksymenko. General Psychology. – Vinnytsya, 2005.

17. S.D. Maksymenko/ Psychological nature of the personality. – К, 2007.

Chapter III ACTIVITY

Part 6 Activity Psychological Analysis

6.1. Concept of Activity

Activity is typical of living beings. It provides the organism with the relations of vital importance with the environment. The source of their activity is their needs, which cause their corresponding reactions and actions. One's need is the state of living being in which one's dependence on the particular life conditions becomes apparent. But activity of animals and that of human beings differ considerably in accordance with their psychological characteristics. Activity of animals is characterized as behaviour. It is limited to instincts and actions based on conditioned reflexes, which are directed at animals' adaptation to their environment and satisfying their biological needs in food, sexual reproduction and protection. Satisfying animals' needs is a real stimulus of their activity. It determines the way animals satisfy their particular needs.

As a matter of fact, human activity is social one. It has formed in the process of labor historically. A human being not only adopts himself to life conditions, but changes them actively according to one's needs, which appeared and developed historically. Human activity is characterized by consciousness and purposefulness. An individual as an activity subject determines a certain goal for satisfying one's needs and interacting with the environment, motivates this goal, chooses the means for its fulfillment, and demonstrates physical and mental activity in achieving the goal.

Conscious character of human activity reveals itself in its planning, in foreseeing its results, actions regulation in striving for its improvement.

Thus, human activity is the conscious activity that displays in the actions system aimed at achieving the goal.

6.2. Activity Purpose and Motives

Purpose is something that a human being strives for, works and fights for, and wants to attain in one's activity. There can not be conscious activity without any purpose.

Purposes of human activity appeared and developed historically in the process of labor. They are caused by social life and the conditions human being lives under. The purposes depend on the roles individual performs, one's social duties and also on person's development and individual traits. The purposes may be the nearest and distant. The distant purpose is realized through a number of close, partial goals, which lead to this remote purpose step by step.

Socially important purpose is the source of personality activity. Only such purpose causes great energy. Such purpose arouses the unity of mental, emotional and volitional activities, a focused concentration of consciousness on the goals. "The purpose reflex", writes I. Pavlov, has a significant importance as it is the main form of human energy. Life is substantial only when the person strives for a certain purpose. As soon as the purpose disappears in one's life, human life becomes colorless and miserable.

Motive is some inner power, which causes person to act in a particular way. Motives of human activity and behaviour are connected with one's natural and cultural needs genetically. Needs cause interests, ie a person's attitude towards certain objects with the aim of their learning and mastering.

Material needs (in food, clothes dwelling), spiritual and cultural needs (cognitive, socio-political and aesthetic ones) can be incentives to act. Activity motivation can be the nearest (to fulfill something desired as soon as possible) and distant (fulfillment of something desired is planned for a long period of time). Motives can be also differentiated according to the degree of one's awareness. The examples of the motives which are realized are the following: one's duties, obligations to the collective, responsibility, discipline, etc. But in many cases subconscious incentives prevail, for instance, one's habits, preconceived attitude towards certain facts, of our life, people, etc.

Despite the activity motive realization, it is the very determinant in the process of achieving the purpose which is set.

Person's purposes and motives are determined by social life conditions, production, educational and special created relations. There is certain connection between purposes and motives of human activity. On the one hand, purpose and motives cause each person to act, determine its essence and ways of its achievement; on the other hand, they are formed in the process of activity, under its influence. New needs and interests appear in the process of activity, such as business or mental, aesthetic or sports ones.

6.3. Activity Structure

In all kinds of activities people use **innate movements** (based on unconditioned reflexes) or **acquired** ones (based on conditioned reflexes). Movements based on unconditioned reflexes are transformed in the life process as a result of one's experience and education according to the requirements of life, culture of work and behaviour actions. Under the influence of education and upbringing one's movements (such as manner of working, speaking, writing, reading and those ones connected with processing materials, playing musical instruments) change so much that it is difficult to recognize their innate, nature character.

In one's activity, depending on its goal and content specific material and the ways of processing, movements are united into various complexes and systems. A system of movements directed to appropriation of a thing or its constituents is called actions. One can distinguish subjective and mental (or intellectual) actions.

Subjective actions are aimed at acquiring things, contacts with people, animals and plants, etc. **Intellectual actions** are revealed in one's perception, of one's memory and thinking activity, etc. Intellectual actions take place on the ground of outward subjective actions. As a result of their **interiorization**, that is transference into one's inner life, they become the sense of one's intellectual activity. At the first stages of acquiring some experience children and adults operate concrete subjects and visual aids; compare, analyze and synthesize them, find out their causal relationships and interactions. Then, as a result of outward subjective actions interiorization with some subjects, a person begins to operate with images of these subjects, their relationships and interdependence. At the higher level of development these operations are performed with the help of notions expressed in words.

As a person analyzes the interiorized environment, it is logically formed and included into the system of one's previous experience and realized in activity in the form of certain actions. The process of expressing one's inner intellectual actions outwardly is called **exteriorization**.

Regulation plays an important role in activity. In the process of acquiring knowledge and experience a person forms some image of actions and movements of the performed activity in one's consciousness, or the **acceptor of the action**. Any performed action is compared with this acceptor in the case of deviation from the presupposed way of its performance. Then it is corrected according to the planned goal and action acceptor.

Thus, activity is the total combination of determined actions realized by person (or persons). Individual's conscious activity is characterized not only by aims and motives, but also by certain means with the help of which it is performed.

Successful fulfillment of any activity by person demands the necessary means. It presupposes acquiring of one's skills and habits with the purpose of using them to attain the set goal.

6.4. Means of Activity and Process of Their Acquiring

Concept of skill. Success of any activity depends on the skill at performing it. It concerns any business, pedagogical or sports activity, writing, reading or playing musical instruments, etc.

A skill is sometimes generalized as knowledge of some matter, understanding of its fulfillment process. But it is not the very skill, it is one of its necessary prerequisite.

Skills are sometimes reduced to knowledge of some matter, understanding the way it is done, acquaintance with the order of its execution. However, it is not skill yet, but only one of its necessary preconditions. A person can, for example, know the rules of driving a car, but in the case of having imperfect skills and habits of driving nobody will give him or her a driving licence. A schoolboy can know the peculiarities of making a story plan, but while observing the execution process of this task one can understand, that the necessary skills and habits have not been formed yet.

Skills are formed when some knowledge of a certain matter is combined with knack in executing actions which this activity consists of. One can drive a car, who sticks to the fixed regulations, does it adroitly,

exactly, who has acquired habits in this sphere. A pupil can make a story plan in the case of having particular habits of working with a text. Similarly, the skills at playing certain musical instruments, painting, doing sports exercises and other tasks are grounded on the concrete acquired habits. So, **skill** is one's readiness to fulfill activity successfully, which is based on some knowledge and acquired habits.

Human activity consists of a number of different actions mostly. That is why a skill to execute them also consists of partial skills. Consequently, a skill at driving a car covers the skills at starting the engine, regulating its work, steering, keeping an eye on the road and car work. Pupil's skill at learning includes planning one's home work, doing it at definite time by rational methods, learning text by heart, doing written tasks, checking the result of their execution. The complex of interconnected partial skills covers everything which is called skills: eg starting the engine, a skill at learning, a skill at playing some musical instrument, a skill at painting, etc.

Concept of habits. By recurrent performance of the action, a person exercises in its execution. Consequently, individual perfects the execution of this action. Later this action is fulfilled more quickly, easier, freely. It requires less strain, efforts and volitional control, the amount of false motions reduces. Person realizes the action aim, way of its achievement; techniques of its achievement function by themselves, more or less automatically. So, the components of skills which are improved during repeated actions, which appear in automated actions execution, are called **habits**.

The existence of habits presence facilitates the human execution of conscious tasks. Consciousness determines the possibility to start, regulate and accomplish any action, and the motion itself takes place without any further will intervention as real reiteration of that, which has done already for thousand times (I. Syechenov). A person can realize automated components, ie the motions, which a certain activity consists of. If it is necessary one can direct one's attention to spelling with the aim, for example, of writing them calligraphically, beautifully. One can realize the motions of articulate organs while pronouncing sounds, usual motions of the fingers while playing the musical instrument with the aim of checking and changing something. Man begins to realize motions when complications, obstacles in their execution arise.

Process of skills and habits formation. Skills and habits are formed in the process of one's teaching. Three basic phases of this process are distinguished. The first stage begins from realization of the task and methods of its execution. Consequently, foreman elucidates and shows to a fresher the way to perform production operations, and the latter acquaints oneself with them. While teaching the pupils to write, they are also acquainted themselves with the necessity to write each letter accurately. Then the learners attempt to employ obtained explanations in practice, ie to perform corresponding actions.

On the explanations basis, visual perception, action demonstration the first schematic visual conception is generated; it is still general, about the spatial and temporal peculiarities of action, about direction and motions amplitude, their speed, co-ordination and sequence. Teaching is attended by the considerable volitional efforts and confidence sense, faith into one's forces or by doubt, indecision, timidity. These experiences mark on fitting effectiveness, contributing to it or detaining it.

As a result of further training, ie recurrent reiteration of certain actions with the purpose of their consolidating and mastering, motions sequence becomes coordinated gradually, and actions – clearer and more concordant. The knack is typical of the second, higher phase of its perfection. Its physiological foundation is strengthening in the cortex of cerebral hemispheres of the temporal nervous connections, their specialization, making their certain system, ie formation of definite dynamic stereotype.

As a result of training the action execution is accelerated and facilitated. The unnecessary motions are removed and the tension of their execution is reduced. This means, that excitation irradiation, which took place at the beginning and caused a great number of superfluous motions, is replaced by its concentration. Superfluous motions, which do not find «business reinforcement», are gradually inhibited as the inadequate one's to a certain situation. But the adequate motions become more economical, accurate and exact.

During the process of mastering execution the correlation of analysers, which take part in this process changes. Such change causes the diminishing role of visual senses and increases the role of impellent feels in action regulation. It can be observed while forming industrial,

sporting skills and habits, and acquired habits of playing the musical instrument and many others.

The motions regulation on the basis of self-control plays the most decisive role in the process of skills and habits formation. Self-control contributes to elaboration of keen auditory, visual and impellent differentiations and this, into its turn, contributes to actions exactness. In the process of knack visual control for motion action increases, which is of vital importance at the beginning of knack, gradually diminishes, yielding to the motions control, ie the control for the action of those organs, by means of which it is performed.

Depending on the way the motions are automatized, the role of visual perception changes in the process of action execution. At the first stages a visual perception and action coincide, for example, the letter perception is combined with its pronunciation. Such combination is inevitable and necessary, but it slows down the execution of the task. And, as a result, the perception training starts to get ahead of the action. For instance, at distinct fast reading, the pronunciation of the read materials is accelerated by the perception of not only separate syllables, but the whole words which are followed by the word, which is being pronounced. The next perceived elements of the text prepare the further motions that ensure fast speed and higher action execution effectiveness.

Each action consists of a certain number of motions. And this number on motions can be big and small. Skillful action execution requires integrity of these motions into one act, and these acts are integrated into a more complicated action.

For example, a pilot, flying in the exclusive circle, for 5-6 minutes has to execute 200 separate motions. To cope with the task it is necessary to combine them into more complicated integral actions successfully. The physiological foundation for motions combination into the integral action is the formation of so-called «associations of association», ie the chains of temporal nervous connections, their certain systems. While fixing, the latter become stereotyped. This stereotyping is the foundation of the automated action execution. In this connection the volitional effort reduces greatly, slow attention concentration on motions passes into the state of after-free attention, motions become more assured and more exact, the conscious control of the process of executed action becomes easier.

Such acquired development level of habit is typical of the last third trained phase. At this phase actions become learned, which gives an opportunity to master them and to lead to a certain mastery level.

As it was already mentioned, the process of skills and habits formation usually starts with verbal explanations and learning of action regulations. The evaluation of executed actions, realization of their results is similarly done by the means of a word mostly. The word being included into the action of skills and habits formation process, contributes to the development of the clear sequence, tempo and rhythm of motions and also their system.

No matter how usual, automated action was, a conscious control over it never stops. We realize deviation from the necessary rule or action execution method at once. We, for instance, notice the irregular hand motion while writing, mispronunciation of the word, mistake in the production operation, in the motions while driving a car etc. and bring in corrections in our actions. Though action is performed in this case automatically, it remains controlled consciously.

The conditions of skills and habits formation. The main conditions of successful forming of skills and habits is the realization of the task aim and understanding its contents and execution methods. It is achieved by the means of task explanations, demonstration of the best samples of the executed task and execution action itself.

The success of skill and habits formation depends mostly on the conscious attitude, personality readiness to develop its own skills and habits, interest to better actions execution, connected with task execution.

In the process of skills and habits formation it is important to take into one's account the individual's peculiarities: the type of the nervous system, previous experience, theoretical knowledge, inclinations and abilities.

The teaching conditions, correct skills process organization: the actions learning sequence, gradual transition from the simple to more complicated tasks, from slow to fast tempo of their execution are also play the important role in skills and habits mastering process.

While developing skills it is necessary to take into one's account that the long continuous training as well as long interruptions in it (for example, lessons in music, sport training, when the labour operations are done once a week), do not contribute to successful skills and habits

formation. The long intervals between the exercises cause weakening relaxation of the formed skills and habits.

6.5. Habits Transference and Interference

Acquired habits, are based on the previously formed habits to some extent. It means that the new formed dynamic stereotypes are accumulated in the cortex of the cerebral hemispheres on the previously formed stereotypes, they do not only co-exist, but interact as well. Previously acquired habits are able to contribute to the formation of the new acquired habits, as well as to inhibit, detain this process.

Previously formed habits often contribute to learning the new ones, facilitating this process. Thus, the acquired habits of modelling and drawing help a child to gain the habit of writing. The acquired habit of playing one musical instrument makes the learning process of playing another musical instrument easier. That is why, one who plays the piano, can learn printing easier. Such positive influence of the previously acquired habits on the process of forming the new ones is called **the transference of habits**.

Transference phenomenon is caused, foremost, by the presence of similar and identical features in already acquired habits and a new one, the common ways of appropriate actions execution. The elements of the already formed acquired habit are included into the structure of a new acquired habit and make the process of its mastering it in its tern easier. Thus, the application of before formed temporal nervous connections, their certain groups to new cases, in the new situations, their generalization occurs here.

The transference takes place when a person, having learned the specific way of doing a certain action by one organ (for example, to write with a right hand), can do this action without a special exercise (but less perfectly) by another organ, for instance, to write with one's left hand, leg or head.

The habits which were acquired before sometimes influence the process of new habits formation negatively. This negative influence causes reducing of actions productivity, making mistakes etc. Such phenomenon is called the **habits interference**. Rivalry is typical of interference, that is observed between some already formed and new formed stereotypes.

Interference is observed when two or more reactions are produced on one irritant. Thus, while studying foreign language some mistakes in pronunciation of letters, identical in graphemes to the letters of the mother tongue, but different in their pronunciation (eg while pronouncing the Ukrainian letters «c», «x», «p», «y» etc.). The same problem happens when one uses a code, in which the meaning of the conditional signs is replaced. In one experiment the experimental persons learned one code by heart, in which each letter meant a certain number (for example «K-5», «C-2»). After the experimental persons had carried out this work, they were offered to learn another code by heart, in which the same letters meant other numbers (for example «K-3», «C-8»). It was found, that for mastering the second code the experimental person had to execute more exercises than for mastering the first code. Interference is explained by insufficient inhibition of usual actions produced earlier.

Interference appears when the skilled actions are used in the new situation without taking into one's account its difference. It takes place, for example, when an operator operates the device of new construction, in which an operations sequence has been changed in the comparison with the old device.

In general, interference arises under certain conditions. Knowing these conditions and predicting their action in this or that concrete situation, one can prevent habits interference and make the process of mastering new habits easier.

Person's habits are supported on the proper perfection level if they are used regularly. When the mastered habits are not used for a certain period of time they weaken. The systems of temporal nervous connections and their physiological foundation, are inhibited. The execution of corresponding actions becomes slower and their quality reduces. Thus, a long interval of the car driving process, in sport activity, musical training, causes reducing of the perfection level and worsening of execution quality of corresponding actions. That is why, specialists in any sphere of activity have to train permanently in order to support their acquired habits up to the perfection level.

The quicker acquired habits weaken, the less they are formed and consolidated. Their relaxation occurs in **deautomatization** of executed actions.

Negative emotions and fatigue often cause violation of person's usual actions. In this case it is necessary to have a great self-control for performing action at the usual rate, without any mistakes. Violation of usual actions happens, when a person has to act under the new conditions which can cause uncertainty in one's forces. It testifies to the fact that produced systems of conditioned reflexes preserve the character of the cortex automatism only, because there exists certain constancy of the external and internal conditions under which it was produced, that is, when they external and internal stereotypes are in unity.

Violation and negative changes of habits are the result of the pathological changes in the brain activity. In the case of pathological changes more complicated habits usually are ruined first and then less complicated and older ones are ruined as well.

Types skills and habits. Skills and habits are the essential parts of any human activity. They are distinguished according to activity essence and those person's needs, which are satisfied. According to this aspect one can distinguish skills and habits of self-service, production, speech, mental, art, sporting and others.

The largest group covers industrial skills and habits, which are differentiated by separate labour types. The industrial skills formation evidence has proved that all industrial habits can be divided into three groups:

- **constructive skills**, which are connected with the conceptions of labour products, with construction of the latter with the help of drawings, models, descriptions and with the display of these conceptions in words, models, projects and labour motions;
- **organizational and technological**, connected with the selection of the necessary production implements and materials, with the determination of their treatment methods, with planning and control of labour itself;
- **operational**, connected with the application of the production implements and materials for producing certain labour product, with the execution of the necessary production operations.

A special group of skills and habits covers speech skills and habits, which are the essential speech constituent, aimed at satisfying one's need in communication with other people, in the exchange of thoughts. Habits of verbal and writing speech belong to this group. Mental skills and habits are shown in execution of different types of intellectual

activity (for example, remembering some certain material, doing sums and other tasks, fulfillment of mental operations, experimental tasks, theoretical work in this or that specific branch). Various skills and habits are united into sport, art and other types.

Some types of skills and habits are closely connected and interacted. So, mental skills are always connected with the skills at fulfilling oral and written work. To complicated industrial skills are always included mental components. At the same time skills at carrying out, for example, experimental activity in a certain branch demand the habits of practical operating of the necessary devices, measuring and other devices.

Skills and habits play a great role in human activity. They give us an opportunity to achieve the aim successfully. The availability of a great number of skills and habits is the foundation of person's power, they give an opportunity to save one's forces, using them expediently and to raise the productivity and prevent fatigue.

Forming of dynamic stereotypes in the cerebral cortex accelerate the process of the conceived reactions, frees the cortex for new individual adoptions and admits the possibility of parallel processes development in the cortex. As a result of automation in the cortex of the cerebrum hemispheres the conditions for simultaneous automatic act and other analytical and synthetic activity are created. The automation of the conceived reactions saves the cortex activity as the whole and enables to remove the focus of its activity on the most processes of vital importance.

All available person's skills and habits are one's positive possessions. That is why skillful people are appreciated in our life. The more person has skills and habits in a particular sphere of activity, the more he is appreciated as a real master in this very sphere of activity.

Skills and habits are very important in human creative activity. The presence of skills and habits is the necessary condition of one's conscious creative activity. They are improved more and more in the process of activity. Skills and habits contribute to the development of person's creative activity, they become one of the major factors of common mental development. If a person were not capable to acquire habits, this person could not get the higher level of development phase, he would stay too long at the same level because of permanent countless complications.

6.6. Principal Types of Activity

Human activity is diverse and many-sided. According to the aim, essence and forms one distinguishes three principle types of activity: play, teaching and work. These three types of activity is typical of person at any age, but in different life periods they are shown differently depending on the aim, essence, form and significance. At the pre-school age the leading activity type is play, at the school age – teaching, and at the mature age – work.

Play and teaching are typical of people and animals. But the basis of activity types of animals is instincts, and human activity types are caused by social life conditions, they differ qualitatively and, moreover, they are complicated and richer as to their essence and form.

According to its nature and essence, work is a socio-historical category. While working human being appeared and developed as a conscious social creature. The typical peculiarity of all the types of human activity is in the fact that they are often connected with speech activity. The latter contributes to the essence and form development of all the activity types, their purposefulness and motivation.

Playing activity. As a basic form of a child's activity display, the playing activity is, at the same time, the basic method of cognition of the outer world, its reflection the form of feelings, perceptions, conceptions etc. But it differs from teaching and work. Playing is non-productive activity. While playing a child overwhelmingly admires the process, which evokes one's satisfaction. When an interest to the play disappears, a child stops playing.

In the plays of small children the aims can not be steady. It happens because little children lose aims in the play and easily pass from one play to another. But in the process of development and education purposefulness of children's playing activity increases, aims in plays become steadier. A play is considered to be the school of thought, senses and will. And it is really so. In plays all children's psychic processes and qualities, such as observation, attention, thoughtfulness, persistence, courage, skills, habits, abilities, are not only become apparent, but also formed. While playing not only children's physic development occur, but also their physical development, namely: physical force, adroitness, speed and motions exactness. Moreover, when children are involded into playing all their personality qualities are formed, in particular, such moral traits as collectivism, friendship, sociability,

veracity, honesty etc. That is why, the pre-school games play an important role in children's training for school education.

At school age a play is of more complicated and purposeful character. Schoolchildren tend to didactic games, which have the aim of conducting a play successfully, defeating the rival, developing one's certain physical and mental qualities. At teen and youth age harmful habits can be developed, for example, gambling. Involving children into sports activity, interesting matters will prevent them from harmful games.

Educational activity. Teaching is the basic type of school age children's activity; active, conscious, purposeful activity which means acquiring knowledge of the whole humanity with the purpose of children's training to the future independent work activity. Education is not limited by the school age. Human being learns during the whole life. The development of science, engineering and social life induce person to it. Scientific, technical and social progress, which is typical of the 21-st century demands considerable replenishment and reorganization of the system of comprehensive and special professional knowledge gained at secondary school and vocational training establishments.

During teaching process its aims are gradually complicated, but at the same time, they are differentiated. Simultaneously with general educational aims the practical ones appear, namely children's training to life, acquirement of practical knowledge, skills and acquired habits. On the basis of general educational knowledge the polytechnical and vocational education is realized as well. General education (knowledge of foreign language, mathematics, physics, chemistry, biology, history) becomes more necessary for the vocational education and training creative specialists.

The successful study at school depends greatly on realization of educational aim and motives, by which they are guided. In teaching social and cognitive motivations become vividly: the first one is through the realization of the role and necessity of knowledge for life and work, the second one is in the attitude towards the essence of knowledge, in the interest in them. The teaching motives are closely connected with work. Work demands the need for knowledge, in this case general and special abilities are formed. Social motivation of the pupil's learning contributes mostly to one's deep knowledge acquiring.

The important condition of the success process of acquiring knowledge is pupil's readiness and training for studying. Pupil's readiness for studying means one's psychological state of being prepared for it, one's desire and habit of learning, ie the necessary level of one's development. The habit of learning means that child understands the teacher's explanations and use them while doing the tasks; carries out these tasks independently; checking oneself according to teachers's instructions and rules, but not according to the way somebody carried out the same task. Pupils, who display independence in studying, gain knowledge better and they are developed more successfully.

Pupil's training for studying displays in concrete knowledge, skills and habits, necessary for learning educational material. That is why it is important to train children of the senior preschool age for studying at school not only psychologically, but according to the concrete knowledge spheres: counting, language, some conceptions of nature and society, etc.

Studying at school requires pupil's self-organisation, discipline and daily systematic work. This very aspect differs educational schoolchild's activity from the playing pre-school child's activity and the approaches to work activity.

Knowledge acquiring depends on pupil's activity in studying. Studying is connected with personality development. While studying, pupil is developed, and while being developed, child gains new possibilities to understand and acquire more complicated knowledge. Child is developed more successfully, when in the teaching process his educational independence is activated, when a child becomes a subject, and not only a studying object, ie one can set oneself the educational tasks and attempts to solve them successfully. In process of personality development activization of mental activity plays too important role, but not only attention, perception, memory and imagination. The evidence proved that the euristic and programmed construction of the learning process, commentaries of the essence of educational tasks and their solutions of every subject, proofs contribute to concretism overcoming in mental activity and successful mental development.

Work is conscious human activity aimed at creating material and spiritual wealth. It is the necessary condition of human existence and development.

While bringing into motion the available natural organs and forces, human being produces work tools and by their means converts nature material, shapes it according to one's own life and satisfaction of various needs.

From generation to generation labour became more various, more perfect, more manifold. Hinting and cattle-breeding were added by agriculture, then spinning, weaving, metals treatment, pottery and navigation.

Work is living unity of physical and psychic aspects. In the work process different human physical and psychic qualities are shown. Depending on the work essence its psychic components acquire some certain peculiarities. The activity of locksmith tractor driver, teacher or composer requires specific psychic qualities. But there are some psychic personality qualities, typical of all the types of work activity, though they display in its each particular type differently.

The first and necessary condition of any work is the presence of the aim, ie to create a certain product.

A typical work peculiarity is that a person predicts its results, imagines material which is used, outlines the methods and sequence of one's actions. One's work actions differ from animals' actions which are similar to work actions. For instance, before building something a person images its image in one's mind. And finally at the end of the work process a person gets the result, which existed in a person's mind before the very work process. The more complicated the work task is, the higher demands are for human psyche.

Any work requires the necessary training. Knowledge, skills and habits of work are acquired during studying and previous work activity. The more complicated types of work activity need longer learning. To master the specialities of doctor, teacher, engineer, it is necessary to study at a higher educational establishments after leaving secondary school. It takes plenty of time to acquire industrial specialities of high qualification.

In human work activity one's attentiveness, observation, imagination and thinking are shown. These qualities are of vital importance, especially when person is to carry out a specific work task, while finding the new, more perfect methods of its execution.

Work requires physical and mental strain, overcoming difficulties, self-control and other volitional qualities. Purposeful will is necessary both in physical and mental activities during the whole period of their

execution. Particularly it is necessary when work does not fascinate neither by its essence nor the ways of its execution. Work is the source of various human emotions. During the work process an individual experiences success and failure. When a person has a positive attitude towards work these experiences motivate one to greater efforts.

The success of human work depends on the aim realization, which is set by oneself as an object, on motives maturity, which stimulate oneself to work, and person's attitude towards work associated with them, duties on correspondence of one's abilities, general and special training for work demands. Such human individual psychological qualities, as accuracy and discipline play a very important role in working.

In the process of socio-historical development of human life a great amount of various work types have appeared.

The variety of human work is subdivide into **physical and mental** ones. Different types of industrial and technical activities belong to manual work. Its subject is material, which is given by the nature and which is processed by means of various tools. Manual labour requires a certain use of person's physical strength and muscular system tension. Material products, necessary for human needs satisfaction are the results of such labour. Images, thoughts, ideas, projects, knowledge, implemented into material forms of existence (literary and musical works, drawings, carving etc) are the result of mental work.

Manual and mental activity covers an enormous amount of various professions and specialties. This amount is constantly enriched in the process of the development of the national economy and cultural life of the society.

Psychological description and professions analysis (professiography), work conditions give opportunities to determine the requirements of some professions and specialties for personality, to show peculiarities and structure of professional abilities and psychological preconditions of work rationalization. Such study of professions peculiarities and work conditions is important for the professional orientation of the young people and teaching and, education of specialists, for rational work organization, which is aimed at increasing work capacity and productivity, reducing fatigue of workers, eliminating causes of industrial traumatism, waste and defective goods.

Teaching plays an important place among the various types of mental activity. It is complicated and many-sided. The specific peculiarities of this

activity are caused, foremost, by its task and object. The teacher's task is to equip pupils with firm and deep knowledge of the sciences principles and develop their abilities comprehensively. The peculiarities of pedagogical activity causes the demands for a teacher who is an organizer of the teaching process. The teacher must be good at knowledge and skills, which to be used while teaching pupils, permanently enriching and broadening professional knowledge. Every teacher must know pupils, be competent at age and individual peculiarities of their development, be able to teach according to modern methodology, to organize pupil's cognitive and work activity up to the level.

Teacher's personality character traits, such as authority, friendliness, erudition, language culture, persuasiveness, adherence to principle, and also many other positive characteristics, such as love to one's profession and children, exactingness and sensitive attitude towards them, pedagogical tact, which is based on correct psychological understanding of the concrete situation, which the teacher is involved into, initiative in studying of new methodology, tireless aspiration for perfection of one's pedagogical proficiency.

6.7. Creative Activity

Any manual and mental activity under the certain social conditions can become **creative activity**.

In different types of work creation has certain peculiarities, that are caused by essence and activity nature, its circumstances and individual worker's traits. At the same time all the types of creative activity have common features.

Creative activity is caused by the society needs. Realization of these needs is the source of different projects, ideas, thoughts. Creative activity starts from the appearance of a certain project, namely: to change the methods of activity in this or that particular branch, to create a new tool, to construct a new car, to carry out a certain scientific experiment, to write some work of art, to create a musical play, to paint a picture, etc.

For realizing the creative project it is necessary to perform preparatory work, which consists of considering its essence, clearing up the details, ways of its realization and collecting the necessary material. Such preparatory work is typical of creativity of constructor-inventor, scientist, writer, person of art. It is often long-term. It is

known, that Ch. Darwin collected scientific materials for his work "The Origin of Species" over 30 years.

After preparatory work the realization of the creative project is carried out, which can continue for the different period of time as well, depending on the task essence, its complication, personality preparation and conditions of creative work.

Realization of the creative project is a great and intense task which requires participation and eminence of all person's forces, maximum concentration of one's consciousness at the object of creation. This concentration is sometimes so high that a worker involved into this work, does not notice what goes around oneself. Concentration requires the participation of person's cognitive and volitional forces. «I understood, pointed out K. Stanislavsky about the creative actor's work, that creation is, first of all, full concentration of all spiritual and physical nature», that «it envelops not only sight, hearing and all five human senses of perception; it covers one's intellect and sense, will and memory, imagination» [16].

Systematic persistent and intense work is the main creation success condition. Under this condition such moments of the creative eminence arise, which are called inspiration. They result in successful solution of new tasks, creation of new and productive ideas, central images of works of fiction etc. Inspiration is characterized by tension of all worker's forces and is displayed in emotional infatuation by object of creation and productive work at it. Inspiration does not arise before the beginning of the work, but during it as a certain result. Thus, in order to get some success it is necessary to work systematically and regularly, and not to expect inspiration. According to P. Tchaikovsky, inspiration is so-called guest, who does not like to visit the lazy bones. It arises in the process of persistent work only.

Sense of the matter novelty, its need in modern life influence creative activity greatly. That is why, mobilization of spiritual forces and intuitive, unconscious appearance of new images, action methods in the problem solution occur as well.

Success of creative work depends on person's methods and techniques, one's attitude towards the results of work. Creative workers are characterized by demanding, critical, attitude towards their work. It is typical of remarkable poets and writers. O. Balzac rewrote his works twelve and more times, often changing them to unrecognizability

during proof-reading. One can characterize the engineers and research worker's creative activity in the same way.

The more a person is fascinated by work, the easier he or she overcomes difficulties, achieves greater successes and obtains much more satisfaction.

Creative approach to work is the essential condition of productive activity, socio-scientific and technical progress of any society.

Theme Key Notions

→ **Activity, behaviour, motive, aim, interiorization, exteriorization, back aferentation, action, motion, skill, habit, habit interference, interference, play, learning, work.**

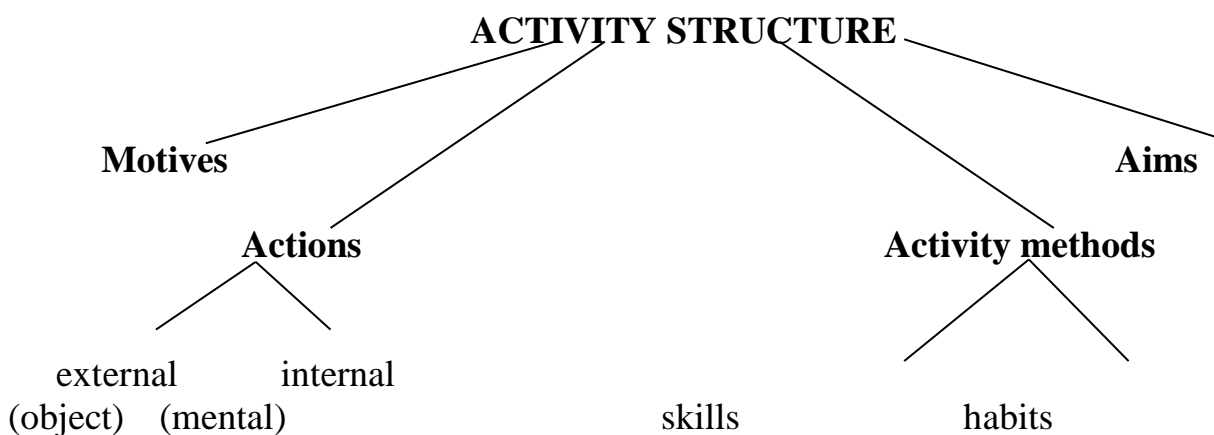
Formalized Structure of the Theme Contents

Psychological function of activity:

specifically human activity form, aimed at satisfying of various human needs.

Psychological activity characteristics:

Regulation by conscious aim, social nature, attitude towards transformation of the life environment.



Questions for Individual Work

1. What is activity of biological individuals caused by?
2. What is animals behaviour as a specific activity form characterized by?
3. What is activity as specific form of human activity characterized by?
4. What is the main difference between animal and human activity?
5. What are the basic activity components?

6. In what way is the control over the execution of activity provided?
7. What is the mechanism of back aferentation while executing action?
8. What is the essence of the process of action exterioration?
9. What is the essence of the process of action interioration?
10. What is the sequence of stages of acquiring habit?
11. What is an acquired habit perfection index?
12. What are the typical signs of a play as a type of activity?
13. What are the typical signs of teaching as a type of activity?
14. What are the typical signs of work as a type of activity?
15. What does the process of activity mastering mean for human being?

Alternative Test Tasks for Self-Control

1. Can one affirm that different types of activity are the products of people's social being?
2. Is it possible to perform any activity without having a clear idea of its aim?
3. Is human activity always mediated by social experience?
4. Does the following sequence of activity components correspond to real logic of its development: actualization of a need, realization of the aim, forming of actions program, determination of actions method, real actions realization, correcting of actions and the result?
5. Is the following habit forming sequence true or false: action demonstration and explanation of its elements, action execution attempts, reiteration of action – skill, correction, automation?
6. Is it possible to affirm that physiological mechanism of transference and interference phenomena is connected with stereotypization in activity?
7. Is social experience always a necessary condition for activity execution?
8. Can one affirm that the principal difference between activity types consists in its character results?

Task and Problem-Solving Situations

1. In the given examples define, which aspects belong to motion and which ones – to action:
 - a) to stop a car, a driver reduces speed, turns off the clutches and presses the brake;

b) to slow down the speed a driver reduces gas and presses the clutches.

2. In which examples below one means skills and habits:

a) An inexperienced crane-operator transfers a load successfully, working at each lever in turn. The load moves as if by jumps and on the broken line, by stops and changes the direction of motion.

b) A competent person without wasting time on determination the sentence type, puts punctuation marks of correctly.

c) While crossing the street with traffic-lights, a person looks at it even when there is no traffic.

3. Define, which connection of psyche and activity appears in the following situation:

The study of elderly people and long-livers indicates their active connection with the environment and work within one's powers contribute to conservation of vital personality tone for many years. If a person because of different other reasons, stops his or her professional public activity, stops performing any duties and functions connected with them, it forces decline, hastens aging and brings deep changes in personality structure.

4. Which objective and subjective factors do contribute to productivity of forming habits?

5. What are tiresome and overwork characterized by? How can they be prevented or decreased?

Used and Suggested Literature

1. Загальна психологія: Підруч. для студентів вищ. навч. закладів/ За загальн. ред. акад. С.Д. Максименка. – К.: Форум, 2002.

2. Максименко С.Д. Общая психология. – М.: Рефл-бук, К.: Ваклер, 2001.

3. Психологія / За ред. Г.С. Костюка. – К.: Рад. школа, 1968.

4. Sergey Maksymenko. General Psychology. – Vinnytsya, 2005.

5. S.D. Maksymenko/ Psychological nature of the personality. – К, 2007.

Part 7

LANGUAGE AND SPEECH

7.1. Concept of Language and Its Functions

The most general and necessary conditions of productive personality psychic activity are **language and speech, communication and attention**.

On the one hand, they are constituents of human psychic life and provide a possibility of active satisfaction of one's cognitive and social needs, and, on the other hand, they are realization ways of personality inner world and possibilities.

Language is a specifically human communication means, that exists in the spiritual life of human society objectively and is the system of signs, which function as the means of such communication. The language appeared in the process of person's development as a social creature, in the process of joint work activity. Biological preconditions of the language origin were the sounds and motions which were typical of the human ancestors and were the ways of communication, need satisfaction in the exchange of thoughts, in identification of things properties and phenomena that surrounded human being and were marked by words. Language is a social phenomenon, the major organization method of human relations. By its means the people reach understanding, exchange views, acquire knowledge, pass it to their descendants, reach a possibility to adjust joint activity in all spheres of human activity.

A number of pronounced sounds, by which the certain objects were marked, acquired a certain sense, became common methods of views exchange for people. Language is the system of signs which are of social nature, that was created and fixed in the process of historical development of society members activity.

Word, as a language unit, has two sides: external sound (**phonetic**) and internal sense (**semantic**). Both of them are the product of long socio-historical development. The unity of these sides (but not identity) forms a word. External phonetic word form is a conditional sign of a thing or phenomenon, that does not convey its properties directly and immediately.

The functions of symbol and meaning are merged into the word. The latter one was developed, narrowed, generalized and was carried on the new objects historically. As a result of this process polyvalency of words appeared, that is also a product of the historical development of every language.

The basic language elements are vocabulary stock and grammatical structure.

Vocabulary stock is a total combination of words in every concrete language. Its specific character characterizes a language development level: the richer and more various a dictionary is, the richer and more various a language is. In the practice of language usage one can distinguish **the active vocabulary**, that is, the words, which are used for expression of own thoughts while communicating with other people, and **the passive vocabulary**, ie the words, which one can understand, when hears or reads them, but uses not all of them. The amount and nature of human active and passive vocabularies depend on one's education, profession, the level of language proficiency, character and essence of activity.

Vocabulary stock, by itself, is not a language yet. In order to exchange views, **grammar** is necessary for human being, which determines the rules for forming words and combining them into sentences. This is provided by **grammatical language structure**. It is necessary not only to understand the words which are in the sentence, but to coordinate in order to convey their exact thought accordingly. The rules of words change (**morphology**) and their sentence combination regulations (**syntax**) are formulated by grammar and by this enables to express notion and opinions, to make the conclusions about the objects and phenomena, their attributes and relevance.

The word as a language unit is the source of information, which always correlates with the certain objects determined by it and the reality phenomena. Fixation in the word of the objective reality and socio-historical experience in the different forms of their display determines **the signifiante** (attributive) language function. Another language function, that is caused by the needs of human communication and its grammatical structure development, is the expression of the essence of thing information. This function provides a possibility of thought formulation and the transmission of information.

The basic elements and language functions which are characterized above become the means of communication, exchange of views under the condition that a speech process takes place among people.

Language and speech are not identical notions. **Speech** is the process of human language use for communication. Depending on the age, activity nature and environment the human speech acquires certain peculiarities in spite of the fact that people communicate in one language. Thus, the speech of one person is figurative, bright, distinct, convincing, and the speech of the other one, is, on the contrary limited, poor, dry, not very comprehensible. The difference in mastering language is shown in this aspect. Every person has an inherent individual speech style, the difference in sounds articulation, intonation, logical distinctness; every person speaks in his or her own way, though uses one common language while communicating.

Speech does not exist and can not exist without any language. At the same time language itself exists as a living aspect only under the condition, that it is used by people actively. Language is developed and mastered in the process of language communication. Speech itself is a form of every vital language existence.

Speech is considered to be language activity as well, because by its means one can, for example, provide communication, solution of mnemonic or mental tasks. In this case speech has the characteristics of speech actions, which are constituents of other purposeful activity, for example, labour or educational one. So, language is a means of communication between people.

7.2. Physiological Mechanisms of Speech Activity

Physiological basis of speech is conditioned reflex cortex activity of the big hemispheres of the cerebrum, which irritants are the words, so-called «signals of signals» (I. Pavlov), that replace the immediate objects and their properties. As an irritant the word has three forms: **the word which is heard; the word which is seen; the word which is said.** Word functioning is connected with the activity of the peripheral speech system and central cerebral physiological mechanisms.

The peripheral or vocal speech system consists of three parts:

- 1) the lungs, bronchial tubes, trachea;
- 2) the larynges;

3) the gullet, nasal cavity, nasopharynx, uvula, palate, tongue, teeth and lips.

Each of these organs plays a certain role in the language sounds formation.

The peripheral tongue system activity is subordinated to the cortex of the big hemispheres of the cerebrum, by which it is directed and the function of which it is. This function is typical of human brain only. The tongue cortex zones form some analysers which are interacted with each other and are connected with the whole activity of the nervous system co-ordinatingly.

Speech, as a reflex process by its nature, is realized due to participation of the second signal system which is closely connected with the first one.

A word due to the previous human psychic experience is connected with all external and internal irritants, that come to the cortex of the big cerebral hemispheres, and can signal about them, change them or cause certain reactions to them. As a result, the corresponding systems of the temporal nervous connections are formed in the cortex.

In the formation of these connections visual, auditory and motor analysers participate.

The cortex of the big cerebral hemispheres is connected with different parts of the peripheral tongue system with the help of two-sided-epherent and apherent means. Though the speech process depends on the work of the cortex of the big cerebral hemispheres and some areas of the cortex play a specific role, which consists in localization of cerebral analyser outflows in them that regulate the process of listening and speaking. It has been ascertained that the speech centres are located in the temporal part of the left cerebral hemisphere. However, this whole area is connected with the different tongue-motor speech mechanisms.

Over one hundred years ago P. Broka noticed that the damage to a certain cortex part, and, in particular, to the back part of the third forehead barnacle of the left hemisphere caused the disturbance of tongue articulation – so-called **motor aphasia**. Aphasia is a partial or total loss of ability to speak or understand spoken language, caused by damage to the brain. A sick person loses the ability to express his thoughts at will, though motor articulate system remains not damaged. P. Broka made the conclusion, that this area of the cortex was the centre of «the motor words images». Later K. Vernike determined, that by the reason of damaging the

top temporal barnacle of the left hemisphere of a sick person lost the ability to understand the language. He deduced, that in that part of the left hemisphere the «sensory words images» were located. In the case of damaging that allotment the sick man had so-called sensory aphasia, and such person lost the ability to understand the language of other people. While hearing the language, a sick man can not connect the sounding with the certain meaning of words.

These and other areas of the cortex connected with the certain aspects of the speech function, are not independent and strictly isolated centres of the language process, but only the separate links of the complicated nervous process of the tongue activity. The researches of P. Brok and K. Vernik raised a number of analogic statements according to which all the psychic functions are connected with speech, are «distributed» between the certain cortex areas.

However, by the numerous researches physiologists and psychologists proved, that such understanding of physiological basis of speech activity is not enough for its interpretation.

Thus, the researches of M. Zhynkin [3], devoted to the explanation speech mechanism, have proved the existence of such several mechanisms. M. Zhynkin points out that before producing speech act a man builds a sense skeleton in his mind (with the help of object-displaying circle of conceptions, images and schemes). And it is the utterance programming mechanism.

Then the group of mechanisms, which are connected with the transition from program plan to grammatical (syntactic) structure of a sentence, is operated. The mechanism of grammatical prognostication of syntactic construction, mechanism, that provides memorising, keeping and realization of the grammatical typical words, transition mechanism from one constructions type to other (transformation), program elements development mechanism into grammatical constructions and others belong to this group. Besides these ones, M. Zhynkin singles out another mechanisms, which provide the searches of the necessary word according to the sense and sound signs; the choice mechanism of the necessary language sounds and mechanism of real existence of sound speech.

So, one can establish that physiological basis of the speech process is rather complicated, it occurs in the certain sequence and time. That is

why to speak about isolated localization in the cortex of the big hemispheres of the cerebrum for all sides of the speech act is pointless.

Speech perception is provided by the same mechanisms, as speaking. **Speech perception** is also a gradual transition of something perceived to sense (object-displaying) code, identification of the separate words, word-combinations, and also the whole phrases with the speech experience. **Understanding speech** is the final rendered process stage, when a man correlates the essence of something perceived (addressed language, a read text etc.) with the consciousness essence and different activity factors.

Such conceptions about physiological basis and speech mechanisms are confirmed by the contemporary researches of speech activity, **cases of aphasia** which appear during the wounds, swellings and other activity disturbances of this or that areas of the cortex of the big hemispheres. An essential contribution into their description at the level of the different mechanisms was made by psychologist O. Luria [7]. He singled out a **dynamic aphasia**, connected with losing the ability to speak, using phrases, though a sick person did not feel difficulties neither in repeating words nor in naming objects, or in understanding the language. That was the result of disturbance or of utterance programming mechanism or mechanism of grammatico-semantic organization.

Sensory aphasia appears in the loss of phonemic hearing, ie in damaging the connection between sound composition and meaning of the word, that is the result of disturbance of the sound word analysis.

Semantic aphasia is the disturbance, that appears in difficulties to find a word and in understanding of semantic relations between the words. For example, a sick person understands the words «father», «sister», but does is not able to comprehend, what the the word combination “father’s sister” means.

Efferent motor aphasia is characterized by the destruction of the utterance structure at the safety of the separate words and the lack of ability to combine the words in the certain sequence. In this case the principle of **succession** is broken. **Afferent motor aphasia**, is similar by description to efferent motor aphasia. It displays in the disturbance of articulate speech in some difficulties of the necessary sound selection.

Besides speech discords, that are caused by the damage of analyser's cork parts, functional discords, connected with the activity of speech-motor part happen as well. One of them is **stammer**, which is caused by cramps of the tongue muscles. The face and hands cramps, etc., can occur as well.

Different reasons can cause stammer: eg nervous rampage, nervous trauma, infection, inheritance. It is possible to eradicate it addressing to medical logopedic establishments in good time.

7.3. Types of Speech

The displays of speech activity are heterogeneous. They can be divided and classified into the certain types according to the different signs.

Verbal speech. This is a basic speech type, which is sounding and is perceived by others with the help of hearing. Verbal speech is subdivided into dialogue and monologue.

Dialogue speech is the speech between two or several interlocutors who switch the roles of the person, who listens to, and the person who speaks, ie they take the part of passive or active interlocutors.

The division into «active» and «passive» participant of the conversation is relative, because both, one who speaks, and one who listens, display activity, though of different kinds. The standard language knowledge, its lexical reachness, grammatical structure and phraseology, practical use of language play an important role in functioning the dialogue speech form. Automatism, worked out on the system of the temporal nervous connections, is fundamental for this process.

Dialogue speech is closely connected with the situation, in which the conversation takes place, that is why this type of speech is called **situational**. At the same time, it is **contextual**, because, being materialized as certain activity of two or several persons, each utterance is caused by the previous utterance to a large extent.

Dialogue speech is not enough organized grammatically and stylistically. As a rule, in dialogue speech simple speech constructions are used, according to the context and previous utterances. The usual word combinations, remarks, templets, idiomatic expressions, for

example: «so to say», «Here it is», «and one would never thought» etc. play a big role in the dialogue speech.

Monologue speech is the speech, when one person speaks and the others listen to him and perceive his language. The examples of monologue speech are reports, lectures, speeches at the meetings, explanation of new material by the teacher etc. This is a relatively detailed speech type. Non-verbal information is used in it comparatively less. This information is received from the colloquial situation. In the comparison with the dialogue speech the monologue speech is active or arbitrary type of speech to a large degree. In order to pronounce a monologue speech act, the speaker must realize the whole idea and his own utterance or several utterances on this ground successively.

Monologue speech is the organized speech type. The speaker plans or programs not only a separate word, sentence in advance, and the whole speech process, the whole monologue in general, sometimes in thoughts, and sometimes as a record in the form of a plan or a synopsis.

Monologue speech in detailed forms needs a certain preparation, which consists in preselection of the essence, clear planning and proper verbal arrangement.

Written speech. It is a special type of the speech process, that gives an opportunity to communicate with absent interlocutors as contemporaries of the person, who writes, and also with those who will live afterwards. Written speech is a kind of monologue speech, but it is performed as writing and reading of what is written in the form of writing signs (words).

Historically written speech appeared later than verbal one and on its grounds, comparatively with verbal one, has a number of the specifically psychological peculiarities. First of all, it takes place outside the direct contact with interlocutors, and that is why excludes intonation, and reader's reaction perception, mime gestures, his remarks, which are important for the verbal language. In written speech it is essential to express the subject and attitude towards it on the paper. That is why, it is more detailed than verbal monologue speech. One should mind the future reader, take care of written signs to be clear for the reader; should explain everything to avoid misunderstanding. So, a structural complication of written speech increases to a considerable extent, in the comparasion with the verbal one. The first type of speech makes more demands to man, it needs more detailed, divided, consistent, total

thoughts presentation; more strict grammar, words and expressions selection. In verbal speech we can use certain expressive means instead of omission of some words, but in written speech such omissions make it incomprehensible. Written speech is the most arbitrary speech type.

In order to use written speech successfully a man should master its means. In the process of individual development man learns to write and read considerably later than to speak verbally, but there is a close connection between verbal and written speech. For instance, mastering writing skills, reading fiction and poetry contribute to the further development of the personality verbal speech, to enrichment of his active vocabulary and to realization of the grammatical structure. Written speech, based on the verbal one, not only supplements, but leads to its certain alteration. For the majority of people depending on their education and activity peculiarities, a written interpretation of their thoughts is more difficult, than a verbal one. That is why, the teaching of organized cultural speech stipulates also teaching of written speech.

Internal speech. Verbal and written speech that can be expressed in the dialogue and monologue forms is **external speech**. Internal speech is its variety. Its name testifies, that internal speech is not aimed at communicating with other people. A man uses internal speech while considering something, planning his actions, without speaking aloud and not recording on the paper, without contacting with other people.

Internal speech is soundless, that is, not pronounced aloud, though it often occurs in the form of whispering, and it sometimes begins to sound, turning into the talk to oneself. It happens in the case of big thought effort, that is accompanied with expressive emotions.

According to the structure the internal speech differs from the external one that it is too laconic, fragmentary, the majority of the secondary parts of the sentence are excluded from it. As a result the internal speech produces an impression of incoherence and unintelligibility, only the subject or predicate remains in the sentence, that is a centre of one's thought, around which images are united. A possibility of such reduction of internal speech is connected with that fact that a person, who thinks to oneself in thoughts, knows absolutely well what it is about. That is why, there is no necessity to express one's thoughts in full for oneself. But a habit to think in such a «brief» way has the disadvantages as well. Often everything that is quite intelligible during the internal speech, for its simplified and brief syntactic

structure, appears not so intelligible, when one has to retell thought essence to other people: some moments turn to be incomprehensible, thoughts are unargued and inconsequent logically. There are the cases, when it is impossible to render a clear idea in the coherent language verbally or in written.

Internal speech appeared in the process of people's speech communication as a result of complication of the tasks and activity essence. It is caused by the need, first of all, before expressing something verbally or in written form, to plan it, outline the basic joints of utterance, to form the utterance and reflection scheme.

Both types of human speech, ie external and internal types, are in close interconnection and permanent intertransitions. The lightness and speed of such intertransitions depend on many conditions, namely: essence, complication and novelty of mental activity, language experience and human individual peculiarities.

Speech has the person's individual peculiarities which are reflected in **tempo, rhythm, emotionality, distinctness, exactness, smoothness, loudness, logical sequence, thoughts utterance figurativeness.**

The individual human speech peculiarities depend on one's ability to use it, as a communication means and to regulate it. Depending on these peculiarities one people are talkative, others are characterized by certain self-control, estrangement. A volitional speech self-regulation is an important aspect of its functioning. Activity nature is marked on speech and at the same time requires the mastering of its certain peculiarities. Each specialist makes his own specific attitude demands to speech. Speech should not be only perfect stylistically and logically, and convincing, but emotionally-figurative, evidential and influential scientifically. Such qualities of professional speech are not simply produced in the process of practical experience, they require one's own self-regulation and desire for the language perfection.

Theme Key Notions

☛ **Language, sign, denotation system, semantics, vocabulary stock, grammatical structure, significative language function, function of essence expression of information object, speech, external speech, dialogic speech, monologue speech, written speech, verbal speech, internal speech.**

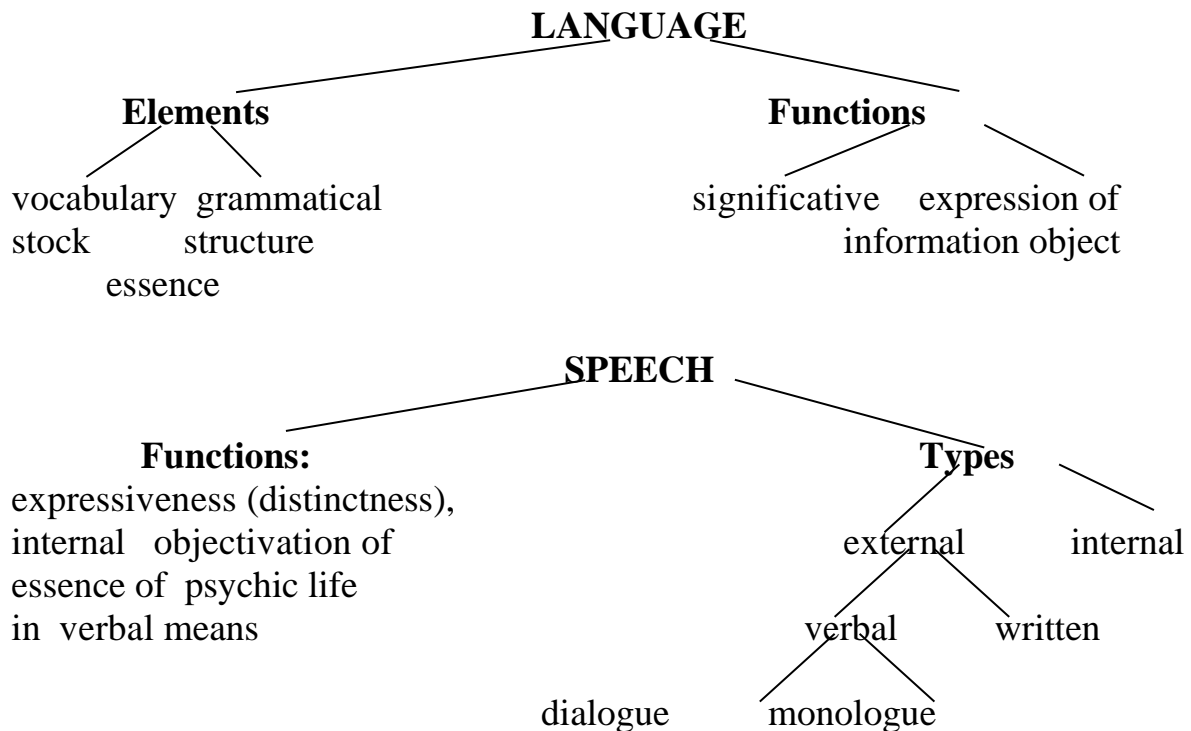
Formalized Structure of the Theme Contents

Socio-psychological language function:

obtaining and rendering of social experience by means of the denotation systems.

Word physiological word nature:

conditioned-reflex connection between the object essence of the first signal system and language symbol.



Questions for Individual Work

1. What is language and what are its basic elements?
2. Enumerate the basic language functions.
3. What are the peculiarities of speech as a process and what are its types?
4. What is the basis of speech division into the types?
5. What is a specific character of verbal speech?
6. What is a specific character of written speech?
7. What are the peculiarities of internal speech and what are they caused by?
8. What is the speech aphasia and what are its types?
9. In what way speech and language are connected?

Alternative Test Tasks for Self-Control

1. Is it possible to affirm, that the beginnings of the language origin is a natural product of the people's social being and their activity?
2. Can one agree that language development is a process, which will not stop until humanity exists?
3. Is there any principal distinction between the language and speech?
4. Do you agree that the vocal speech system consists of three parts?
5. Do you agree with the statement, that the sensory aphasia is a human ability disturbance to understand the language of other people?
6. Is it correct to think that internal speech is a special speech type, development of which is unrelated to its other types?
7. Is the statement correct that the very human thinking does not exist without language?
8. Is it possible to affirm, that the language and speech are identical?

Task and Problem-Solving Situations

1. The communication function is a constituent of the speech definition. What way does it co-ordinate with the fact that speech can be inner one (to oneself) in?
2. What is language itself as a socio-historical phenomenon? Which sciences besides psychology, does investigate the language problems and how are they correlated with psychological researches? What are gnosiological, semantic, linguistic and psychological peculiarities of this problem?

Used and Suggested literature

1. *Баєв Б.Ф.* Психологія внутрішнього мовлення. – К.: Вища школа, 1966.
2. Загальна психологія: Підруч. для студентів вищ. навч. закладів/ За загальн. ред. акад. С.Д. Максименка. –К.: Форум, 2002.
3. *Кучинский Г.М.* Психология внутреннего монолога. – Минск, 1988.
4. *Максименко С.Д.* Общая психология. – М.: Рефл-бук, К.: Ваклер, 2001.
5. Психологія / За ред. Г.С. Костюка. – К.: Рад. школа, 1968.
16. *Sergey Maksymenko.* General Psychology. – Vinnytsya, 2005.

Part 8

INTERCOURSE

8.1. Concept of Intercourse

Intercourse is an important spiritual need of personality as social creature. Human need in intercourse is caused by the social method of its being and interaction necessity in activity process. Any joint activity, first of all the work, one can not be realized successfully, if the suitable contacts between those who execute it are not adjusted to mutual understanding.

Intercourse is profoundly social phenomenon. Social intercourse nature is expressed in that fact that it always takes place in the people's environment, where the intercourse subjects are always the sources of some social experience. Social intercourse experience is in information matter, that is, its object (knowledge, information, activity methods); in the methods (verbal and non-verbal communication during the intercourse), in the types of intercourse which are produced in the process of historical development socially. According to its matter intercourse covers all spheres of human being and activity, its objective and subjective aspects. Intercourse between people takes place while knowledge is shared, experience, different skills and habits are formed, common actions are agreed and coordinated.

So, intercourse is the various contacts between people, conditioned by needs of joint activity.

Intercourse peculiarity is its close connection with activity. Activity is the basic environment and necessary condition of the origin and development of contacts between people, exchanging the necessary information, mutual understanding and conformity of actions. An informative aspect of intercourse is always some information conditioned by the people's interaction needs. It may be some information on new knowledge, for example, teacher's explanation of notions; explanation of the essence of the certain phenomena and processes; information about the current events, substantiation of some principal propositions, hypotheses formation, etc. Communication can be the method of sharing some certain skills and habits. With the help of verbal description and explanation of action, its demonstration and

exercising man can be taught to perform any activity. In such a way a process of professional skills, physical and any other actions is realized.

Man can be the essence of intercourse. Real contacts between people, in the process of which they perceive one another immediately, create the environment for the objective revealing of their behaviour, peculiarities manners, character traits and emotional and volitional sphere. While interacting in such contacts the real importance of one man for an other is made known, their likings and antipathies are shown. In works of fiction there is a lot of examples of the depth and variety of psychological details of relations between people in the situations of direct intercomprehension: the ways the penetration process into human nature takes place; person's feelings through external displays. An expressive speaking look or gesture sometimes can inform about more information than a word which is said.

The relations between the members of the contact group have an important influence on intercourse nature of this group. The intercourse system of concrete personality, one's manner of behaviour, colouring and used methods depend on the mutual relations of the group members.

8.2 Intercourse Means

An information transmission in intercourse process is provided with the help of language as a basic specifically human intercourse means, and also by non-verbal methods.

Language as intercourse means appeared and formed historically, in the process of human society development and according to its needs.

Language nature is based on symbols. Every word is a symbol, which is correlated, to some degree, with objects of the outer world. Each language word, as a symbol, has gained a certain meaning historically and this word is intelligible for the community, using this language.

With the development of social and technical progress of the humanity the circle of human needs expanded permanently. As a result it caused the development and perfection of language as intercourse means. Vocabulary stock and perfect grammatical language structure of a contemporary civilized society enable to pass on any information and a lot of hues and information object details. Language is the means of

piling up and transmission of social experience. Due to intercourse and with the help of language the reflection of the reality in consciousness of one man is added by the information which was in the consciousness of other people, and as a result, the possibilities for the exchange of information are increased.

Verbal communication with the help of word is the main and most perfect form of human intercourse. The level of language proficiency, the richness and culture of language utterance determine the opportunities and effectiveness of intercourse of every particular person.

Non-verbal means (**gestures, facial expression, intonation, pauses, manners, appearance**) are widely used simultaneously with the language as the means of intercourse with the help of a word.

Intercourse as a living process of spontaneous intercourse of individuals reveals emotions of those who are involved into the process of intercourse naturally, forming non-verbal aspect of information exchange. Means of non-verbal communication as «the language of feelings» are the product of people's social development, they intensify the sense effect of verbal communication and, moreover, under the certain conditions they can change it.

For instance, it is known that silence sometimes can mean more than words and while exchanging looks people may understand the meaning of information which is not revealed through adequate categories of verbal utterances.

Person's appearance has a great importance for establishing informative and emotional contacts in the process of intercourse. The first impression about person is based according to the first opinion of his or her appearance. And this first impression very often determines the development of the further relations.

Appearance of any person consists of the appearance of the body; clothes, manner of behaviour and habits. Appearance can be changed to some extent, but, as a matter of fact, it remains conservative. Corporal appearance is the typical expression, which appears under the influence of thoughts, feelings, relations which are dominant in certain situations or life intervals. Hair-dressing, clothes, other toilet attributes (on the grounds of which judging about a person, his or her belonging to the certain group, profession, etc. are made) are the essential addition to it. So, the military, who wear the uniform, must have smart appearance

and be disciplined. With the help of the specific manners, which are typical of a person, one can get some information about one's upbringing, self-appraisal, attitude towards other people.

The most dynamic external aspect of non-verbal intercourse becomes apparent in gestures and facial expression. **Gesture** is socially formed and steady motion, which transmits certain psychic state. Being of social origin, facial expression and gestures by their biological nature have the elements of innate nature. For example, the facial expression of fear and gestures of threats originate from biologically essential protective notions that are observed in animal's behaviour.

In the process of verbal intercourse facial expression and gestures give the opportunity to intensify the sense accents of information transmitted and emotional effect from the realization of its significance. However, it is necessary to take into account the fact that unjustified hypertrophied facial expression and gesticulation without pithy grounds can complicate perception of information and sometimes simply disorient a recipient. As a special kind of non-verbal intercourse one can single out **tactile-muscle sensitivity**. Genetically it is one of the most powerful channels of obtaining information of vital importance. With the help of tactile-muscle feeling one can get to know quite a wide range of other man's characteristics: his physical strength, some peculiarities of personal aspect, relations, psychic state etc. For example, holding the hand of other man while communicating one can make a conclusion about one's psychic state, mutual understanding and contacts, attitude towards the certain situation and intentions.

According to the evidence of foreign psychologists the spatial place of interlocutors while communicating, distance and communicative attitude towards each other play an important role in effectiveness of intercourse. It is known that the considerable political actions, such as the negotiations of leaders, some meetings, etc. are hold at the round table.

During interpersonal intercourse in private the sides have an opportunity to obtain exhaustive information about the subject of the talk, to determine a subjective position and attitude towards it of the other side. The remark which was spoken through clenched teeth and the lack of invitation to take a seat, when they are caused by the objective conditions, can be considered to be disrespect towards the other side. The communicative meaning of the distance in intercourse is studied by the branch of psychology which is called "**pracsemics**".

Pracsemics singles out four distances in intercourse: **1) intimate; 2) personal**, which certifies, that those, who communicate are friends; **3) social**, which characterizes the official contacts existing between the sides, which are involved into relations; and **4) public distance**, that is established between the strangers and episodic situational contacts.

Non-verbal intercourse methods, which go with a verbal report, create an implication, which facilitates, enriches and deepens the perception of information that is transmitted. The accordance of the non-verbal communication methods to aims, to tasks and maintenance of the verbal communication is an important intercourse culture element. Such accordance is extraordinarily important in teacher's activity and for everyone, for whom the methods of the verbal and non-verbal intercourse are the instrument of their professional activity.

8.3. Intercourse Functions

Intercourse is a complex process, in which one can single out such basic functions, as communicative, interactive and perceptive.

Communicative function covers different forms and methods of information exchange and transmission, due to which the experience enrichment, accumulation of knowledge, mastering the specific activity, concord of people's actions and mutual understanding become possible. Communicative function of intercourse that is materialized by the language is the necessary condition of generation development succession, social and scientific progress of the humanity and individual personality development. Information exchange, which that takes place in all the spheres of the society life between people in various kinds of activity, is provided by the intercourse function. The contacts between people are not limited by information transmission needs only. Intercourse always provides certain influence for other people, the change of their behaviour and activity. In this case **the interactive function** of intercourse, the influence function appears. Advice, instructions, demands, orders given in the verbal form and addressed to other person, are prompts to action and regulators of one's behaviour. Joint activity, its essence and execution conditions form such a model of interpersonal interaction, when each of the participants influences the other people by his acts and, in his turn, changes his actions under their influence successively as well.

Joint people activity is social phenomenon. It takes place under the social control. Social control is the activity evaluation from the point of view of its accordance to behaviour standards adopted in society that is regulated by the norms of human mutual relations. Interaction of people takes place effectively, if their behaviour correspond to adopted standarts, to those roles, which the interlocutors play.

By "role" we mean standard adopted behaviour pattern, which is excepted from everyone who has the certain social status. Such behaviour is perceived as professionally specific one – eg doctor, teacher, engineer and also as one's behaviour which is typical of particular age – child, adult. Every person can play several roles during the whole life: in the family – the role of a father; at work –the role of manager, in the circle of the friends – the role of friend, etc. The interaction of people, who have several roles, is regulated by the role expectation. **Role expectations** are hopes for other person's behaviour, which corresponds to his or her role status. Correspondence of the people's behaviour with mutual expectations is the important condition of success in intercourse, and such behaviour is qualified as tactful behaviour. If any patient who has just come to be received by a doctor feels a respectful attitude towards his problems, tenderness, kindness, aspiration for understanding of his disease symptoms thoroughly, he will trust this doctor and hence, he will follow the doctor's advice in order to recover as quick as possible.

The cases, when the expectations of one of the interlocutors don't justify (when these expectations contradict the principles and convictions of other interlocutor and when they are against his socio-regulated values and norms), are considered to be tactlessness. In such situations the personality, understanding unreality of what is expecting from him, can dispute his own position and can not concentrate his attention as far as tactful his behaviour is from the interlocutor's point of view.

Conscious contempt for other side expectations, which is often observed in every day communicative situations, is tactlessness. Tactlessness is typical of the situations when a person shows disrespect to his interlocutor, eg wandering while being busy with outside business), interrupts him or behave himself not according to socio-established norms of role regulations (eg when the leader of the

organization refuses to perform his duties which are of his competence) etc.

Thus, **tactlessness** is the destruction of expectations in the process of intercourse, which breaks effective interaction of sides involved into intercourse and which can cause disputed situations. Especially it is dangerous to break the requirements of tact in pedagogic intercourse. Its negative consequences become apparent in tension and disputed relations between teachers and students (pupils) (mostly between teenagers and the youth), in sharp deterioration of efficiency of educational influence on child's personality. Showing adherence to principle and exactingness in the relations with students (pupils), teacher must present his respect and confidence to his students (pupils); strive for understanding them and make a compromise when it is essential while communicating with them. The ability to unite exactingness and respectfulness towards pupils forms favourable psychological conditions for self-esteem formation and it is of vital importance for intercourse culture formation and contacts development.

While exchanging information, establishing communicative relations for gaining activity purposes, interacting and influencing the intercourse partners variously, in the process of communication people perceive each other spontaneously and also have an opportunity to cognize physical, psychological and individual peculiarities which are typical of each side. It is the perception function of intercourse. Information which is got by interlocutors in the process of intercourse through various channels gives the opportunity to form more or less objective opinion about his partner in intercourse, penetrates his inner world and understands behaviour motives, habits, evaluated attitude towards facts of the reality.

Adequate psychological portrait of the intercourse subject is formed depending on the objective and subjective factors and covers the action of three important mechanisms of interpersonal perception: identification, reflexion (interpretation) and stereotypification. Among the conditions, which assist in knowing each other while communicating an important role belongs to the factor of the personal and social significance of the subject of communication, the nature of intercourse situation and contacts duration. When these conditions are

present in intercourse objectively and probability of the significant psychological personality features improved.

Identification is the first stage in the human cognition mechanism by human. **Identification** is the method of understanding other man through realized or unrealized likening him to the identifying subject. The main point of this process is in the interaction situations in which the partners attempt to comprehend each other, putting oneself on the place of other partner. For instance, a student understands well the trouble and behaviour of other student before the examination; a person, who is in love, understands suffering of that one, who got a failure in reciprocity.

To determine one's own tactics while communicating, for the interlocutor it is important to know, how individual, who communicates with him, perceives him himself. The realization by the subject the way he is perceived by the partner in the process of intercourse, is called **reflexion**. Reflexion deepens the perception of other person, because it gives conception about the attitude towards himself as to perception subject. In the process of intercourse identification and reflexion form the unity, due to which the psychological informative aspect of intercourse is provided. A deficit of some priori knowledge about people's psychology with whom it is necessary to communicate doesn't give the interlocutors the opportunity to define at once, what way to support and develop the contacts in. The subject, programming his own communicative activity, attempts to comprehend and explain the reasons that cause foreordain actions and deeds of each interlocutor.

Explanation of other person's acts by imputing him or her probable senses, intentions, thoughts and behaviour motives (according to A. Petrovsky) is called the **causal interpretation**. A false cause of interlocutor's behaviour interpretation complicates, and sometimes makes it impossible for both sides interact while communicating in a proper way. Actions and acts interpretation is materialized either on the authentication base, on the ascribing to a partner those motives and senses, which, in subject's opinion, he would reveal in the analogical situation, or by reckoning the partner of intercourse to the certain persons category, according to which certain stereotype conceptions exist. **Stereotypization** is a classification of behaviour forms and interpretation of their reasons through correlation to the standarts, according to social stereotypes. **Stereotype** is a human image formed

under the concrete social conditions, which is used as a model. Stereotypization as generalization reception of the typical traits, inherent to personalities as to repositories of certain socially and psychologically significant characteristics, is widely represented in classical fiction. For example, such are the characters of "The Dead Souls" by M. Gogol': Chichikov, Manilov, Korobochka, Plyshkin and Golokhvastov from the comedy „No man can serve two masters" by M. Starytsky. In the everyday life stereotypization in evaluation of human qualities, for example, such as kindness, is represented in proverb „No grudge one's last shirt for somebody", and miserliness which is representful in the utterance: „He will grudge you snow in the middle of winter".

Stereotypization can be formed as a result of one's own experience by the subject of interpersonal perception, to which information, obtained from the books and others sources, is added. Stereotypization is the result of the penetration into the psychological personality nature and determination of one's most typical traits. If stereotypization is based on the sufficient objective information, on the basis of which the generalizations are made, it reflects the highest human identification level by human. However, stereotypization can be false, and have prejudice, when interpretation facts, on the grounds of which the generalizations are made, are not argued sufficiently, and the facts themselves do not exhaust the point of relations. Thus, during the perception of unknown person, primary information, which is obtained by the perception subject, plays an important role. If the recipient has preliminary created aim at perceiving other person, it can play a decisive role in the way everything will be perceived in the process of intercourse, which stereotypes will prevail in the judgements. It is proved experimentally, that previous information, which is obtained by perception subject, is an important base for prejudice formation in evaluation of other man.

Two groups of students were shown a photograph of one and the same person. In the first case an experimenter characterized this person as a scholar of standing reputation, and in the second one – as a criminal. It was offered to give the full coverage of person's traits on the grounds of appearance. The first group of students, which was given some information about «a well-known scholar», made a conclusion that the person's appearance in the photograph indicated about his intellect, strained thought, kindness and concentration. The second group, which

was given a variant «of the dangerous criminal» affirmed, that it was the portrait of a cruel decisive and mean person. One and the same detail of the portrait, namely, the eyes were interpreted as penetrating and clever in the first case, but as evil and merciless in the second one.

In intercourse stereotypes, arising on the ground of positive or negative aims, are subjectivism. In everyday intercourse the stereotypes, based on evaluation of interlocutor's appearance, cause the deformed subjective ideas about his real advantages, are widely spread. This can do essential harm for the relations and is undesirable phenomenon in intercourse with people. Such situations are undesirable of teachers and group leaders' activity especially.

8.4. Types of Intercourse

Intercourse, as social phenomenon, covers all the spheres of social being and activity of people and can be characterized by the different parameters, namely depending on the participants contingent, duration of relation, mediated measure, completeness, desirability etc.

According to the participants contingent one can single out interpersonal, personal-group and intergroup types of intercourse.

Interpersonal intercourse is typical of the initial groups, in which all the members keep up immediate contacts between themselves and communicate with each other. The peculiarities of intercourse are determined by the matter and activity aims, realized by the group.

Personal-group intercourse is observed in that case when one of the intercourse sides is represented by personality, and the other by the group. Such intercourse is typical of the teacher with his class, the leader with his subordinates and the speaker with the audience.

Intergroup intercourse provides participation of two associations in this process, each of which disputes its own position, gains its own objects, or both of the groups attempt to come to an agreement on certain question, to reach a consensus. Sharp contradictions on the point, which is under discussion, can cause **intergroup conflict**. In intergroup intercourse every personality is like an example of collective interest, disputes it actively, selecting the means which reflect the collective position effectively.

Intercourse can take place as the interaction of the sides, between which a intercourse link is established, when the interlocutors perceive each other immediately, establish the contacts and use for this all the

means they have. Such intercourse is characterized as **immediate** one. In immediate intercourse function a lot of feed-back channels, that inform the interlocutors about the intercourse effectiveness degree.

Intermediate communication is a communication, which has an intermediate link, ie the third person, technical means or material thing. Intermediacy can be represented by the telephone as a means of intercourse, by the written text (by the letter) addressed to other person, or mediator. In intercourse a measure of intermediacy can be various, depending on the means used for achieving the object.

The time, during which the intercourse takes place, influences the intercourse nature considerably. **Time limit** is an original catalyst for matter and means of intercourse. Just this very time limit creates a situation, when it is necessary to express one's opinion up to the level. **Momentary intercourse** is the intercourse arising from the activity situational needs or interaction and it is limited by taking a decision on local intercourse tasks. Such type of intercourse is consultation on certain question, exchanging views of the events of vital importance, etc.

Long-term intercourse is interaction in the framework of one or several themes, exchanging detailed information on the intercourse subject-matter. The duration of intercourse links is determined by intercourse objects, interaction needs and information nature, which is used by the interlocutors. Intercourse is considered to be **completed**, when subject-matter is exhausted entirely and its participants estimate the interaction results as exhaustive equally.

During **incomplete intercourse** the subject-matter of the talk is not revealed up to the end of intercourse and does not meet the requirements of the sides. Incomplete intercourse can be caused by the objective causes, when the spatial problems (people's dissociation) between the interlocutors or problems on means of intercourse and other necessary conditions for making contacts. Prohibition, unwillingness of the interlocutors to go on communicating, realization of the necessity to complete the intercourse belong to subjective causes. Depending on the situation, intercourse nature and purposes, intercourse is classified also by other criteria.

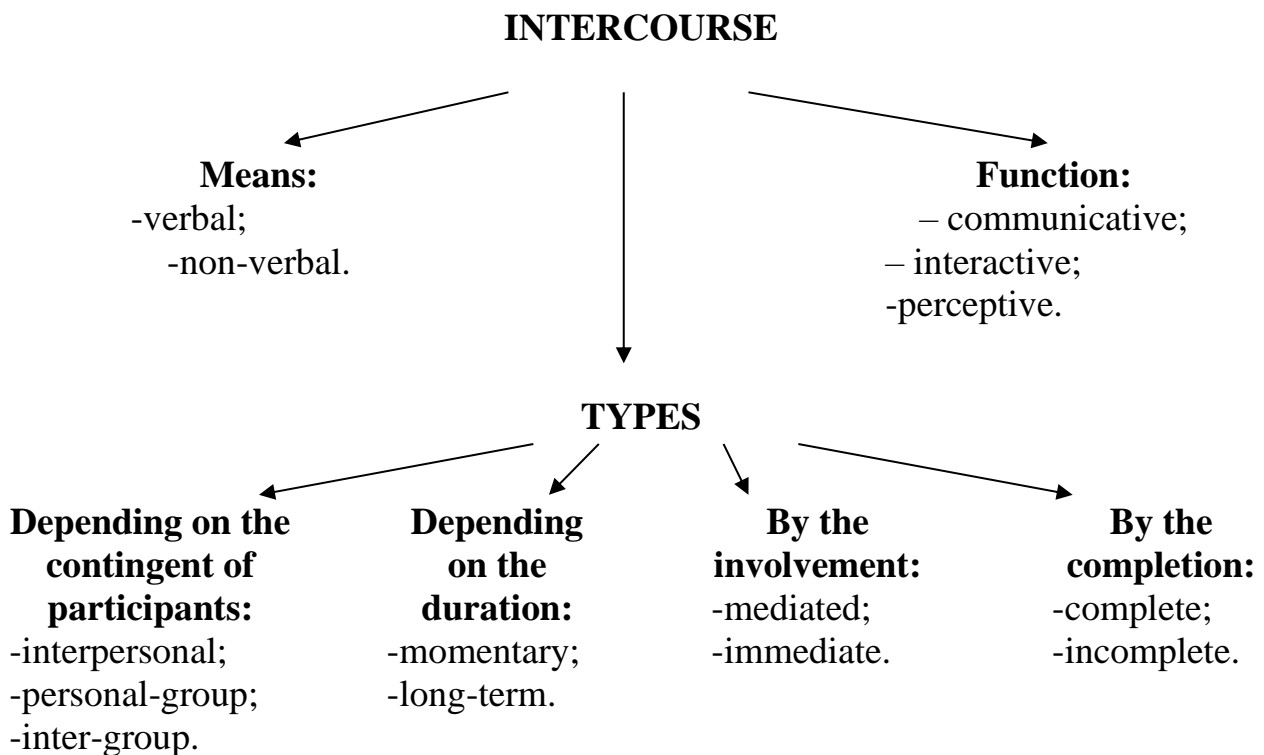
Theme Key Notions

➔ **Intercourse, communication, information, verbal intercourse, non-verbal intercourse, intercourse communicative**

function of intercourse, interactive function of intercourse, reflexion, perceptive function of intercourse, interpretation, stereotypization, interpersonal intercourse, personal-group intercourse, intergroup intercourse, intermediate intercourse, immediate intercourse, long-term intercourse, momentary intercourse, complete intercourse, incomplete intercourse.

Formalized Structure of the Theme Contents

Social function of intercourse:
interpersonal interaction guarantee.
Mechanism of intercourse:
exchange of information.



Questions for Individual Work

1. What is the need for intercourse between people caused by?
2. What role does intercourse play in social life?
3. What is social essence of intercourse?

4. What role does non-verbal communication play in intercourse?
5. In what way does the culture of non-verbal communication become apparent?
6. What does the communicative the intercourse function mean ?
7. What is the point of the interactive aspect of intercourse ?
8. What is the identification mechanism in the process of perception of other person ?
9. In what way does stereotypization in cognition of person by person occur?
10. According to what principles is intercourse divided into various types?
11. What are the conditions of intercourse effectiveness?

Alternative Test Tasks for Self-Control

1. Is the statement "Intercourse is the exchange of information between people" sufficient?
2. Is there a principle difference between the notions of "interpersonal contacts" and "intercourse" ?
3. Is exchange of information always intercourse?
4. Can the exchange of signals, that is observed among animals, be called intercourse ?
5. Is the comparison of reflexion to the mirror correct or not?
6. Does the expression "the language of senses" reveal the function of the non-verbal communication adequately ?
7. Does prejudice always appear on the basis of the preliminary formed purposes?
8. Is competition always the necessary condition of mutual understanding?

Task and Problem-Solving Situations

1. Under what conditions the exchange of information can be characterized as intercourse ? What causes are able to damage this process?
2. While communicating, the interlocutors sometimes can not reach a consensus on the point of intercourse. Define the probable causes, which can complicate mutual understanding between them.
3. The important psychological factor of intercourse effectiveness is observance of tact by interlocutors which become apparent in

satisfaction of mutual expectations. Is this condition obligatory for any intercourse situations?

4. Are the notions “the lack of tact in intercourse” and “tactlessness” from identical and psychological points of view? Substantiate the answer, please.

5. In what cases at the identification stage of the person’s perception process of another man the adequate conception about his psychological qualities and peculiarities is formed ? What are the demands for this process ?

6. What are the mistakes that are typical of the person’s cognition process of human at the interpretation stage caused by ?

7. What does the experiment with baby rats made by S.Levin testify about ?

8. Identical conditions were created for two groups of baby rats. The only difference between the conditions was the following: the baby rats of the first group were stroked gently every day, while the others from the second group were not. And, as a result, it turned out that the baby rats from the first group appeared to grow up bigger, stronger, more active than those which were deprived of emotional comfort in the second group.

Used and Suggested Literature

1. Загальна психологія: Підруч. для студентів вищ. навч. закладів / За загальн. ред. акад. С.Д. Максименка. – К.: Форум, 2002.

2. Максименко С.Д. Общая психология. – М.: Рефл-бук, К.: Ваклер, 2001.

3. Максименко С.Д, Щербан Т.Д. Професійне становлення молодого вчителя.- Ужгород: Закарпаття, 1998.

4. Психологія / За ред. Г.С. Костюка. – К.: Рад. школа, 1968.

5. Sergey Maksymenko. General Psychology. – Vinnytsya, 2005.

Part 9

ATTENTION

9.1 Concept of Attention

Personality, while being of good cheer, takes objects and phenomenon of the surrounding reality and own experiences actively: an individual perceives, remembers, recollects something and thinks about something. In such cases person concentrates its consciousness on everything he or she perceives, keeps in mind, experiences, ie this time this person is attentive to something.

So, **attention** is a special form of psychic activity, which becomes apparent in the consciousness attitude and concentration on the significant objects for personality, phenomena of the surrounding reality or one's own experiences.

The important conformity of attention is its **choice**, which becomes apparent when a person, being focused on one thing, doesn't take notice of other ones. While listening to or looking at somebody or something, a person does not hear, that he or she is being called attentively, does not notice obstacles on the road. Attention choice is accounted for by slowing down action of the objects significant for personality and experiences relatively less important, which act on it this time. For such state the objects of attention are reflected in our consciousness more brightly.

Attention is necessary in all types of sensor, intellectual and motor activity. There is a comparison of attention with the thermometer, which gives an opportunity to judge about the advantages of teaching methods and rightness of its organization.

Attention is caused not only by the external irritants, but also the human ability to arbitrary direct it on this or that object. This ability is named **attentiveness**. It is a characteristic property of personality, due to which man has his own attention, and that is why in good time he concentrates actively, managing it. Insufficient attentiveness development becomes apparent in the dispersion and distraction, inability to direct and back up its attention in activity process by internal methods without the external motives.

Psychologists explain the essence of attention and its nature differently. Adherents of the **voluntary theory** see its essence in will exceptionally, though spontaneous attention can not be explained by volitional activity. Others think, that in attention displays senses play the leading role, though the arbitrary attention shows in defiance of senses. They searched the explanation of attention in the change of conceptions themselves also, not taking into their account a personality orientation. But in reality attention is conditioned, to a considerable extent, by the relations between activity attitude, which man is involved into, and the attitude of his psychic processes. Attention is there, where the area of activity orients the area of thoughts and designs. So, attention expresses a specific peculiarity of processes, the direction of which is regulated by activity, which they are involved into. As in attention, the attitude of personality becomes apparent towards an object which consciousness is directed at, so the very significance of objects and phenomena for man place an important role while attention is being concentrated on them. Just this very fact explains why man, being focused on some object, does not pay his attention even to strong irritants, which have nothing to do with that, or which have no importance for man at all. Everything, that personality experiences as significant for him, becomes an object of his or her attention.

In psychology nature of attention was considered by the representatives of different psychological directions and schools depending on their views on the psyche. The representatives of the English **associative psychology** do not include the notion «attention» in the system of psychology as a science. They interpreted concentration as association of conceptions.

The representatives of **introspective psychology** (D.Herbart, V.Vundt, E.Titchener) considered attention to be only internal subjective side. In their viewpoint, attention is a consciousness state, that is characterized by clearness, distinction, intensity which are typical of its nature or processes. V.Vundt, for example, taking into his consideration this fact, disputed the apperceptive – voluntary theory of attention. Attention is a fixation point of consciousness, its clearest field, caused by consciousness nature transition from the perception zone to the zone of apperception, which, to V.Vundt's mind, is a special psychological activity, that is a display of the inner force unknown to us.

American psychologist E.Titchener finds attention to be a sensory quality, which determines a special feel state in consciousness. The most bright feel prevails over others and acquires independence, singles out among them, subordinates to itself the less bright feels. E.Titchener considers feel brightness to be caused by the peculiarities of the nervous system, but does not reveal these peculiarities.

Representative of the **physiological direction in psychology** T.Cigen explains attention not by the subjective states but by the feels fight and unrealized conceptions for the fixation point of consciousness. Conception, that wins, becomes realized, dominating. So, attention is a conception realization state. The change of conceptions is attention transition from one conception to another. A concentration act arises as a result of associative feels impulses, which depend on intensity, clearness and force of accompanying emotional tone.

French psychologist T.Ribo, as well as I.Sechenov, considers, that attention can only exist due to its physical expression. In this connection he suggested the theory of impellent attention. According to his theory attention is not a spiritual act, that acts secretly. Its mechanism is impellent, such, that operates on muscles in the delay form. To T.Ribo's mind, a man, who cannot control his muscles, is incapable of attention.

The representatives of **behaviorism**, while considering psychology as science about the behaviour, find attention only to be behaviour orientation in its psychology system, as the purpose of the organism as for the external stimuli. The given data about understanding of the attention testify about complication of clearing up of attention essence and peculiarities of its displaying in activity.

9.2. Physiological Basis of Attention

Attention, as the evidence proved, is determined by the correlation of excitations in the cortex of the hemispheres of the cerebrum, caused by the irritants operating on the perceptible organism sphere, also the internal directions and psychic states. The ideas of Pavlov about the oriented-reflex organism activity, which were deepened by the neurophysiological researches later, elucidate physiological basis of attention. Under the orientating reflexes I.Pavlov understood active animals reactions to the changes in the nearby environment, which cause general enlivening and a number of the selective reactions, directed on acquaintance with the changes in the situation.

The oriented reflex provides living creatures with a possibility to adjust themselves to the various external influences on the organism. It becomes apparent in active analysis direction on better perception irritants operating on organism. I.Pavlov wrote that every minute every new irritant, which acts on us, cause suitable motions from our side to get to know more and better about this irritant. We look attentively at the image, which have appeared, listen to the happening sounds, reinforceably sniff at the smell, which reaches us, and, if the object is not far from us we try to touch it, and, in general, we try to embrace or to get to know each new phenomenon or object by suitable perceptive surfaces and suitable senses organs. So, physiological basis of attention is **excitation**, arising in the cortex of the big hemispheres of the cerebrum under the influence of irritants, which act on us.

In the process of activity under the influence of the external and internal irritants in the suitable cortex allotments of the big hemispheres of the cerebrum more or less steady optimum excitations arise. These optimum excitations become dominating and cause checking the weaker excitations arising in other cortex allotments of the big hemispheres.

In the connection with the change of nature and force of irritations, which act outside or in the organism, the focus of optimum excitation can move from one cortex allotments of the big hemispheres of the cerebrum into others. In this case the direction of attention changes. In the hundreded parts of the cortex excitation arises, but the parts of the cortex, which were in the excited state, are hindered. As regards this I.Pavlov writes, that if it would be possible to see through the cranium and if the place of the big hemispheres with optimum excitability would be lighted, then we could see how on the big hemispheres of the conscious man, who is reflecting, a light spot of permanently odd irregular configurations moves. It changes its form and size every time, circled on the whole hemispheres surface by more or less considerable shade.

O.Ukhtom'sky made a considerable contribution into clearing up the physiological basis of attention by his theory about dominant. **Dominant** is the ruling focus, which attracts to itself the excitation waves from the most various sources. Among the big amount of excitations arising in the cortex of the cerebrum at the same time, one is dominating and it is the physiological basis of the conscious processes, attention. Other

excitations are hindered during this process. Hindered excitations are relatively weaker comparatively with dominating ones. O. Ukhtom's'ky named these hindered excitations **subdominants**. As his research showed, dominant not only hinders subdominant excitation, but becomes stronger due to them. In this case dominant becomes stronger. The struggle between dominant and subdominant takes place. Dominant excitation remains dominating one unless some subdominant does not become more intensive than dominant force. Then subdominant excitation becomes dominant one, and, vice versa, dominant excitation becomes subdominant one.

In the activity of the nervous system it is hard to imagine quite non-dominant state. Man is always attentive to something.

According to O.Ukhtom's'ky, the work pose of the organism is the dominant expression. In attention state man strains muscles accordingly, has original expression, special motions and **sensebilization** appears in the sense-organs, ie sensitivity increases or falls down to external irritants in the case of person's concentration on internal activity and his own psychic states. The vegetative processes, palpitation, and blood circulation change simultaneously.

So, one can come to a conclusion about the personality state of attention distinct motions by the external changes.

The origin of attention and its distracting are accounted for the action of mutual induction of excitation and hindering. In the case of intensive attention origin to some sign or action the decrease of sensitivity to other irritants is observed.

Mutual excitation of induction and hindering is the physiological basis of the most various attention displays: its steadiness, intensity, distracting, switching, etc.

The interaction of excitation processes interaction and hindering in the cortex of the big hemispheres of the cerebrum accounts for the number of attention properties. Thus, the size of attention is explained by the wider or narrow center of the optimum cortex parts excitation of the big hemispheres. Attention distribution, ie the ability to be attentive to some objects or actions at the same time, is explained by that fact, that usual activity can be performed by those cortex parts, that, to some degree, are in the state of hindering. Transition of attention from one object to another accounts for transferring of optimum excitation from one part of the cortex on another as a result of the origin of the new

irritant. The speed of attention transition is not the same for all the people. This depends on the type of the nervous system of the organism. An organism with the excitable type of the nervous system transfers attention from one object to another quickly, than an organism with an inert one.

The contemporary neurophysiological researches testify that the processes of attention are not only connected with the cortex of the big hemispheres of the cerebrum, but also with its undercortex formations. The selective nature of attention is provided by the good cortex state of the cerebrum, which is supported by the ascending impulses of reticular structure. But a cheerful cortex state is provided not only by ascending activating reticular system, but also by descending one. If the ascending reticular system, which sends impulses to the cortex of the cerebrum, is basic to biologically conditioned activation forms (exchange processes, elementary organism appetences), then the descending reticular system brings on activating influence of impulses which arise in the cortex of the cerebrum, on the cortex formations and by that provide higher forms of the selective activation, connected with the complicated tasks of conscious activity.

Among the cerebral mechanisms of attention the forehead areas of the cerebrum play a big role. They play a decisive part in the cheerfulness level rise according to the tasks to be carried out by man and by this they provide a display of the higher arbitrary attention forms. The results of neurophysiological researches show, that the participation of the frontal areas of the cerebrum in the activation are caused by the speech activity especially.

9.3. Types and Forms of Attention

In psychology there are the following types of attention: spontaneous, arbitrary and afterarbitrary. All types of attention are closely interconnected and turn from one into another under the certain conditions.

Spontaneous attention arises irrespective of consciousness unexpectedly, unforeseen for activity conditions or rest, at leisure, under the influence of various irritants, which operate on this or that analyser of the organism. Spontaneous attention is typical of both human and animals, though its human origin differ from such attention in the animals qualitatively. Unlike animals human can take hold of own

spontaneous attention, and an object of spontaneous concentration can become an object of conscious concentration. The physiological basis of spontaneous attention is unconditioned reflex orientating activity. Its neurophysiological mechanism is excitation that comes to the cortex from undercortex areas of the big hemispheres of the cerebrum.

Spontaneous attention arises, when the force of the outside irritants exceeds the force of realized operating excitations, when subdominant excitation under the certain conditions and in certain circumstances become more intensive comparatively with those, that prevail at this moment. The irritants of spontaneous attention can be not only external objects, circumstances, but also internal needs, emotional states, aspirations – everything, that man worries about in the occasion of something. Most of all it happens, when man is tired, under the inauspicious labour conditions (when it is sultry, cold and there is no any fresh air in the room) or when the activity, which man is involved into, is not interesting for him, and doesn't need intensive mental activity.

Spontaneous attention is momentary, but under the certain conditions depending on the force of the outside irritants operating on man, can arise rather frequently, preventing the leading activity.

Arbitrary attention is consciously directed concentration of personality on the objects and phenomena of nearby reality and internal psychic activity. The basic component of arbitrary attention is will. By will-power man is capable of mobilizing and concentrating his consciousness on the necessary activity for rather long time.

The typical peculiarities of arbitrary attention are purposefulness, activity self-discipline, realization of actions sequence, discipline of intellection and the ability to fight with outside distractions.

The physiological basic of arbitrary attention is conditioned reflex activity, the ability to hinder unnecessary motions and actions. Positive induction of the nervous processes is one of the basic physiological grounds of arbitrary attention. So, one can assert, that one of the basic neurophysiological mechanisms of arbitrary attention are the front cortex areas of the big hemispheres of the cerebrum, which, according to the opinion of the investigators of the cerebrum functions, are considered to be the mechanism of psychic mental activity, and thus, the mechanism of arbitrary attention.

In arbitrary attention the choice of concentration object and actions methods, which is accompanied by the struggle of motives, is the leading one. Realization of actions process, each of its stage is the main thing, that causes concentration on each stage of activity and prepares for concentration on its next stage. This dynamic aspect of arbitrary attention needs skillful distribution of attention among the whole activity – from the very beginning up to the completion and between its separate stages as well.

The basic irritants of arbitrary attention are realized needs and duties, human interests, aim and activity methods. The remoter the aim is and more complicated conditions and methods of its achievement are, the less man is attracted by activity itself and it needs much more consciousness effort and will, and so, arbitrary attention. Such activity (and namely, such as educational and labour activity) requires proper supporting and management.

Afterarbitrary attention, as experience and special researches testify, comes as a result of the conscious concentration on the objects and phenom in the process of arbitrary attention. While overcoming difficulties during arbitrary concentration, man gets accustomed to them, the very activity evokes certain interest in it, and sometimes engrosses of its executor, and attention collects the signs of the spontaneous concentration. That is why afterarbitrary attention is also named secondary spontaneous attention. The effort of will weakens in it and attention intensity does not diminish, remaining at the level of arbitrary attention. Though in afterarbitrary attention the spontaneity, conscious concentration on the object activity and its separate stages diminish, however this type of attention, as arbitrary attention, is controlled consciously. Due to that effort intensity in afterarbitrary attention diminishes, and interest in activity rises, it becomes longer and more productive. That is why in the activity process (educational and labour activity) – it is important to promote the transition of attention from arbitrary to afterarbitrary one by its labour and organization methods.

In educational activity it is important to contribute to appearance of the afterarbitrary attention among the pupils particularly. Teaching, as it is known, is difficult and comparatively tiresome activity, especially when the lesson is not interesting. That is why during the lesson afterarbitrary attention contributes to successful execution of the

educational tasks by pupils and elimination of the subjective tiredness feel.

Depending on the nature of activity, attention is directed either on external, immediately present objects, phenomena and motions of the own body, which are the object of the feels and perceptions, or on the psychic internal activity. In this connection one can single out **external**, or sensory and motor attention or **internal**, intellectual, **attention**. The division of attention into external and internal ones is usually conditional, but these forms of attention display have the certain peculiarities, which should be taken into one's consideration while organizing and managing human labour, educational and sporting activity.

External attention plays a leading role in the process of observing objects and phenomena of surrounding reality and their reflection in human consciousness. It becomes apparent in active aim and attitude of the sense-organs towards the perception object and supervision, in concentration on the operating organs of the body, namely hands, and legs and on their tension. External attention (**sensory, motor**) becomes apparent clearly in the original motions of the eyes, head, facial expressions, mimic and pantomime expressions and motions, in original readiness to perform various sporting labour and educational tasks. Concentration on the objects and reality phenomena contributes to sensitivity rise, ie sense-organs sensibilization of sight, hearing, scent, taste, touch, and also temperament, static and cinestatic organism states and its organs. Sensibilization of sense-organs contributes to more clear selective parts perception of objects, phenomena and their elements. In external attention one can single out concentration on the expectative objects and phenomena-signals for actions and motions, as in labour and sporting actions. Attention to the expectative objects and phenomena is named **presensory** and **motor**.

Internal, or **intellectual**, attention is directed at activity analysis of psychic processes (perception, memory, imagination, mentality) and psychic organs and experiences. It becomes apparent clearly, for example, in solving tasks in mind, in recollection, reflecting in mind. Artist M.Bohdanov-Belsky depicts the displays of the pupils' internal attention in the picture «Verbal counting» successfully, and artist V. Perov reveals experience of the hunters in the picture «Hunters at rest» distinctly.

The ability to concentrate on internal psychic activity is of great practical importance. Such concentration is connected with the ability to imagine objects and action process, to analyse them in mind. And in this process internal speech plays an important role. Self-consciousness is impossible without concentration on internal subjective states and individual peculiarities of personality psychic activity.

During internal attention sense-organs sensitivity falls down, man takes no notice of acquaintances, does not hear, that he is addressed to and distracted from the executed activity. That is why in any activity – eg labour, educational sporting ones – it is not recommended to load both internal and external attention simultaneously and, for example, to set pupils the tasks to be solved in mind or to recollect a formula, to give the names and demonstrate the visual aids at the same time, to perceive something written on the black-board, to observe the geographic map, to keep an eye on the device action. It requires rather developed ability to distribute attention between external and internal directed activity.

9.4. Attention Characteristics

Speaking about attention one can single out its typical characteristics: concentration, stability, switching, distribution and scope. These characteristics are the basic ground of productivity, teaching, sporting and other personality activity. In different kinds of activity these characteristics become apparent differently.

Concentration of attention is its main characteristic. It displays in the concentration intensity measure on the objects, which are the objects of physical or intellectual activity. While concentrating his attention, man takes no notice of outsider irritants, what is going on around him at this moment. The physiological basis of concentration is positive induction of the nervous excitation processes and inhibition.

Concentration, ie **the power of attention concentration**, depends on the activity nature, measure of interest in it and, first of all, on individual peculiarities: one's skills and habits to concentrate, the ground of which is activity and excitations stability in operating cortex areas of the big hemispheres of the cerebrum. When I. Newton was asked about the way he managed to discover the Law of Gravity, he answered that he had been thinking about it constantly. More over,

in this process the work methods play an important role. And excitation intensity maintenance during the necessary time depends on these work methods largely, for example, during the lesson at school or during the time, that is necessary for performing any other activity.

Concentration of attention is closely connected with **attention stability**. Attention stability is characterized by concentration duration on objects of activity. Stability, as well as concentration, depends on force or excitation intensity, that is provided by both action force of activity objects, and by individual personality possibilities, namely on importance of this activity, and person's interest in it. Attention force diminishes under the unfavourable conditions of activity (the noise, inauspicious temperature, unfresh air, etc.) and it depends on the measure of tiredness and health state. One can make a conclusion about the force of attention according to frequency and duration of irritants, which are spontaneous reactions to the different accidental irritants of the external and internal origin. Attention stability may be longer under the favourable activity conditions and due to realization of the importance of the executed task and urgency of its execution, if inherent elements, which activate mental activity are typical of organization and labour methods. Concentration of attention and its stability in the activity process can be disturbed, – in this case its force and duration diminish, attention weakens and man distracts from the object of activity. **Distraction** comes when the factors, which contribute to concentration and attention steadiness, are absent as it was already mentioned above. The unfavourable conditions of activity, difficult in nature and the way of performing tasks and which are uninteresting at the same time, the lack of interest in activity nature, the absence skills and habits of working hasten tiredness and distract attention from activity objects.

Distraction of attention is especially typical of absent-minded people. **Absent-mindedness** is a negative attention peculiarity, which is caused by relaxation of concentration force. Its physiological basic is excitation weakness in the areas of the cortex of the cerebrum. People, and especially children, with weak attention, distract constantly, their attention passes quickly from one object to another, concentrating too long on some of them. It is difficult for them to concentrate their attention on something for more or less long period of time. Such people,

predominantly pupils, are to be got some assistance in keeping mental activity by visual aids, activating their interest into the tasks. The teaching material should be various and aimed at perception variety – visual or auditory. Alternation of the visual, auditory and motor perception varieties contributes to overcoming absent-mindedness. Absent-mindedness becomes apparent during the intensive concentration on something as well. But such absent-mindedness is explained by concentration depth, but not by its weakness and superficiality. The level of attention concentration in labour and teaching process fluctuates. These fluctuations are periodic fall and rise of concentration. The fluctuation periods, as the researches of Ukrainian psychologist M. Lange testify, are from two-three up to twelve seconds. Fluctuations are explained by fall and rise of capacity of the cortex cells of the big hemispheres of the cerebrum, which depend not only on internal conditions (tiredness, nourishment of the brain by oxygen etc.), and on the external ones – monotony of irritants, that brings down excitation force of analyser cells in the cortex of the big hemispheres of the cerebrum. But under the conditions of intensive labour, its pithness, positive attitude towards it fluctuations periods increase much more.

Distraction of attention should not be confused with its switching. **Switching** of attention is its purposeful transference from one object to another, if activity needs it. The physiological basis of switching of attention is hindering of optimum excitation in one areas and its origin in others.

Switching of attention from one objects to another needs proper controlling of one's attention, realization of actions sequence and operations with the objects, which are to be studied, skills to control one's own attention, that is gained in the process of activity.

Switching of attention takes place with the different speed. Is depends on the nature of activity and individual peculiarities. There is a variety of activity. One of them have a decisive switching speed: eg in the activity of pilots, drivers, operators, especially in the case of emergency. People with the excitable type of the nervous system switch their attention quicker than people with the inhibited one. According to researches, the switching speed of attention is equal to 0,2-0,3 seconds, ie this time is sufficient to overcome inertness, which comes in the process of work, and concentrate on other object. In the process of

training in the speed of attention switching one can reduce inertness of the nervous processes in the brain and improve switching speed on execution of other actions and operations.

Concentration of attention can be both narrow and wide, particularly, when man concentrates not on one, but on several objects. In the case of wider concentration of attention its **distribution** takes place and man can perform several activity varieties simultaneously. It is possible, for example, to listen to teacher's explanations and note them down, to do the certain task and listen to the radio at the same time. A precondition of such switching consists in the fact that one action is usual, and performed automatically, and the other one – with the help of consciousness. In the process of attention distribution one activity is connected with the center of the optimum excitement of the cortex of the big hemispheres of the cerebrum, and the other which needs the smaller portion of attention, is carried out by the brain areas with lesser excitability.

The ability to distribute attention is typical of all the people, but it has individual peculiarities. For some people it is difficult to concentrate their attention on two types of activity, and somebody is capable of performing several types of activity at the same time. They say that Julius Caesar and Napoleon were capable of writing, reading, listening to and speaking at the same time. But such ability to distribute one's attention is doubtful. Perhaps, they had skills of switching their attention from one object to another quickly, and they performed their activities automatically or, probably, they were good at some components of these or those actions. These very aspects could produce an impression of simultaneity of actions execution.

Human attention is different by scope. By **attention capacity** we understand the amount of objects, which can be overcome by attention and perceived during the shortest time. According to this fact sign attention can be **narrow** and **wide**.

The width of attention scope depends on relationship between the perceived material and person's age peculiarities.

If the perceived material is easily associated, ie interconnected, attention scope increases. It has been determined by researches that the attention scope of adult during the perception of unassociated by the content material (eg incomprehensible combinations of letters, figures,

separate letters) is 4–6 objects during the perception period of 0,1–0,2 second. But the scope of children’s attention during the perception of the same material and at the same exposition speed is equal to 2 – 3 objects. A previous acquaintance with the material increases scope of attention.

The peculiarities of attention characteristics displaying depend on state, intensity, attitude and motivation both cognitive emotionally and volitional activity.

Characteristics of attention are revealed by different methods. The most accessible researching method of attention is personality activity supervision. It gives a possibility to observe intensity of concentration duration and distracton. The amount and duration of distractions during the lesson is the index of concentration intensity.

Tachystoscope (a device, with the help of which one can exhibit the material for a short period of time) is widely used for the research of attention scope and distribution. The amount of perceived material, monotonous or different by the nature and form, presented simultaneously, is the index of capacity or distribution of attention. The use of the Burdon’s test (the method of correcting test – the deletion of the certain letters in the unorganized text or certain figures among a lot of figures) gives an opportunity to investigate concentration, distribution, and switching of attention.

Theme Key Notions

➔ **Attention, attentiveness, center of optimum excitation, dominant, oriented reflex, mutual induction, spontaneous attention, arbitrary attention, afterarbitrary attention, external attention, internal attention, attention scope, attention steadiness, attention distribution, switching of attention, fluctuation of attention, absent-mindedness.**

Formalized Structure of the Theme Contents

Psychic function of attention:

concentration of consciousness on the activity object.

Physiological mechanism of attention:

mutual induction of the processes of excitation and hindering; the origin of the center of the optimum excitation (I. Pavlov) and dominant (O. Ukhtoms’ky) in the hemispheres cortex of the cerebrum.

ATTENTION

By the presence of volitional regulation:

- spontaneous;
- arbitrary;
- afterarbitrary.

By the orientation on the objects:

- external;
- internal.

Structure:

- steadiness;
- concentration;
- scope;
- switching;
- distribution;
- fluctuation.

Questions for Individual Work

1. What does attention become apparent in?
2. Characterize the physiological mechanism of attention.
3. What is the center of the optimum excitation?
4. What is dominant?
5. What is the source of personality attention in activity?
6. What are the different views of psychologists on attention nature caused by?
7. Characterize the structure of attention.
8. Reveal the mechanism of distraction and absent-mindedness.
9. In what way are attention and human activity interconnected?

Alternative Test Tasks for Self-Control

1. Is psychic activity possible without any attention?
2. Is any activity possible without attention?
3. Is arbitrary attention always connected with the conscious aim?
4. Do you agree with the idea, that attention displays only in some activity and is supported exceptionally by it?
5. Do you agree with the assertion, that external attention arises later than internal one?
6. Does the rise of interest in activity always causes transition from arbitrary attention to afterarbitrary one?
7. Do you think, that the explanations of the physiological nature of the attention mechanisms as the center of the optimum excitation and dominant differ greatly?

8. Is the distribution of attention between the following types of activity possible or not: copying out the text, listening to music, answering the periodic questions of other person?

9. Is absent-mindedness always the index of individual's lack of skill to concentrate on the activity object?

10. Do you agree with the idea, that the high concentration of attention on the activity object is always connected with the favourable objective conditions and lack of outsider distracting irritants?

11. Do all the following enumerated characteristics of activity demand from man more efforts on keeping his attention or not: distant aim, difficulty, uninteresting nature, small scope of the work?

Task and Problem-Solving Situations

1. Which objective and subjective factors can influence the displays of personality attention positively?

2. Which objective and subjective factors can influence the displays of personality attention negatively?

3. Why is the light turned on and off periodically in the electric sign? What is its purpose?

4. I. Newton was accustomed to boil an egg on the spirit-lamp at the work table in order not to distract him from his work. One day at the moment of intensive mental activity he put his watch instead of an egg into the pan. How this fact can be explained?

5. Which person is more attentive between the following:

- a person, who being involved into some activity, is in the state of deep concentration and takes notice of nothing around;
- a person, who is capable of noticing all the details of the situation for the moment and does not lose the sight of any little things from his/her field of vision;
- a person who regardless of any activity he/she involved into, is capable of seeing and hearing everything connected, anyhow, with this activity.

6. Predator can be on the trail of the sacrifice for a long time. Is it possible to characterize its attention as arbitrary one or not?

Used and Suggested Literature

1. Загальна психологія: Підруч. для студентів вищ. навч. закладів/ За загальн. ред. акад. С.Д. Максименка. – К.: Форум, 2002.

2. Максименко С.Д. Общая психология. – М.: Рефл-бук К.; Вак-лер, 2001.
3. Максименко С.Д. Психология в соціальній та педагогічній практиці: методологія, методи, програми, процедури: Навчальний посібник для вищої школи. – К.: Наукова думка, 1998.
4. Мілерян Є.О. Увага і її виховання у дітей. – К.: Рад. школа, 1955.
5. Психологія /За ред. Г.С. Костюка. – К.: Рад. школа, 1968.
6. Sergey Maksymenko. General Psychology. – Vinnytsya, 2005.

CHAPTER IV

COGNITIVE PSYCHIC PROCESSES

Part 10

SENSATION

10.1. General Characteristics of the Concept of Sensation. Cognitive Processes.

Cognitive activity is a reflection process of objects and phenomena of reality in human brain.

Reflection of reality in human consciousness can occur at the level of **perceptible** and **abstract** cognition.

In perceptible cognition the objects and phenomena of the objective world immediately have an effect on human sense-organs – on his sight, hearing, smell, tactile and other analysers and are reflected in his brain. The cognitive psychic processes of **sensation** and **perception** belong to this form of reality cognition. The impressions, obtained with the help of sensations and perceptions, bring information about external signs and properties of objects, forming human perceptible experience.

The highest form of reality cognition by human is abstract cognition, that occurs with the help of **thinking** and **imagination processes**. In developed state these cognitive processes are typical only of man, who has consciousness and expresses psychic activity in action. The essential peculiarity of thinking and imagination is the mediated nature of reality reflection by them, conditioned by the use of knowledge gained before, one's experience, reasonings, forming of hypotheses etc. The cognition object in thinking and imagination processes is internal, immediately objects property feels, laws of phenomena and processes, which are not represented in sensations of objects possession immediately.

Memory plays an important role in human cognition activity, which reflects, fixes and reproduces everything which is reflected in consciousness in the process of cognition originally.

Emotional and volitional processes are important characteristics of cognitive activity, which prompt personality to active actions and volitional acts.

Cognition of objects, phenomena of objective reality, and human psychic life is realized due to all cognitive processes. The basis of mental cognition of the world, no matter how complicated it is, is perceptible cognition. At the same time, perception, remembrance, reproduction and other processes are impossible without mental activity, experiences and volitional aspirations. But each of these processes has certain rules and due to this aspect in psychic activity it can be leading or auxiliary one.

Sensation is a cognitive psychic process of reflection of separate properties of objects and phenomena in human brain due to their immediate effect on the human sense-organs.

Sensation is the simplest psychic process, primary orientation form of the living organism in the environment. Human cognitive activity begins with the sensations. Man selects and accumulates some information about objective reality, own subjective states on the ground of the received impressions produces the reacting methods adequate to conditions of external and internal influences with the help of different analysers. **Sense organs** are the only channels, through which the outer world penetrates into human consciousness. While reflecting objective characteristics of objects and phenomena the sensations exist in consciousness as subjective images of the objective world. This peculiarity of sensations is conditioned, on the one hand, by the nature of the very sensations as a product of the brain reflective activity and, on the other hand, – by the peculiarity of personality psyche.

Positive or negative emotional colouring is typical of sensations. Pleasant or unpleasant sensations signal about positive or negative effect of irritant and cause corresponding effect on it. A vital and gnostic role of sensations is of particular importance, because they are the only source of our knowledge about the outside world and us as well.

10.2. Physiological Basis of Sensations

Theory about the higher nervous activity reveals the grounds of sensations from scientific and natural points of views. I. Sechenov and I. Pavlov showed by the results of their researches that sensations are original reflex actions, the physiological basis of which is nervous

processes which are caused by irritants as a result of their influence on sense-organs or analysers. **Analysers** are the organs of animal, (including human) organism, which analyse surrounding reality and single out of energy in the various types: a visual analyser singles out light energy, or fluctuations of the electromagnetic waves; an auditory one – sounds, ie the air fluctuations; gustatory and smell ones – chemical properties of substances; skin analysers – mechanical properties of objects and phenomena that cause different sensations. Every analyser has the peripheral analyzing part, or **receptor**, that is sense-organ, which task is to single out light, sound, smell and other properties in surrounding reality. Its other part is **the leading way** from the receptor to **the central part** of analyser, located in the brain. In the central part of analyser one can distinguish its nucleus ie the concentration of sensible cells, and the cells disseminated outside it. The nucleus of analyser, as I.Pavlov points out, carries out accute analysis and synthesis of excitations, that come from the receptor. With the help of it all the irritants are differentiated according to peculiarities, quality and intensity. The disseminated cells carry out more rough analysis, for example, they can distinguish only the musical sounds from noises, and make unclear distinction of colours and smells.

Organic changes of any analyser's part – the peripheral, leading or central ones – cause blindness or deafness; anosmia or the loss of taste etc., depending on which analyser is affected. If only the central part of analyser is damaged, misunderstanding of everything individual can hear, see arises, though the sensation of the light or sound exists.

The physiological basis of simpler sensations and sensitivity during the first human life stages is the born unconditioned reflex activity of the nervous system. More complicated sensations are caused by the conditioned reflex and analytic and synthetic activity of the cerebrum.

10.3. Classification and Types of Sensations

There exist different classifications of sensation organs and organism sensitivity to irritants that come to analyser from the outside world or organism. Depending on the contact measure of the sense-organs with irritants one can distinguish (palpable, gustatory,pain) and **distant** (visual, auditory, olfactory) **sensitivity contact**. According to the position of receptors in the organism – on the surface, inside of the

organism, in the muscles and tendons – there are different types of sensations. They are the following:

- the **exteroceptive sensations** – which reflect the characteristics of objects and phenomena of the outside world (vision, auditory, smell, taste sensations);

- the **interoceptive sensations** – that send information about the state of the internal organs (the sense of hunger; the sense of thirst; the sense of fatigue) to the brain;

- the **proprioceptive sensations** – they reflect the movements of the parts of the body and also the state of the body (kinesthetic and static sensations);

- the **temperature sensations** (which are the function of the special temperature analyzer that carries out heat regulation and exchange of the body with the environment) belong to independent sensations. The temperature sensations are part of tactile sensations.

According to the system of analyzers there exist the following types of sensations: (vision, auditory, tactile, pain, temperature, taste, smell, hunger and thirst, sexual, kinesthetic and static ones). Each of these types of sensations has its organ (analyzer), its origin peculiarities and functions.

The eye is the organ of **vision** sensations. One can distinguish a light refraction (cornea, pupil, hyaloid) and a lightsensitive (retina with its cones sensitive to daylight and rods, sensitive to darkness) parts in it.

There exist chromatic and achromatic colours. Chromatic colours are characterized by colour tone, light and saturation. Colour tone is a characteristic which distinguishes one colour from another with the same light and saturation. Colour tone depends on the wavelength of light.

The light of colour is the difference measure from the black colour. The black colour has the least light and the white colour has the biggest one. Colour brightness depends on lightwave intensity, ie on the amplitude of its fluctuations. Colour saturation – is the measure of colour tone display, ie colour difference from the gray colour which has the same light.

Achromatic colours are different only according to their light measure, which depends on the coefficient of light reflection. The white paper has the light reflection coefficient from 0.60 to 0.85 and the black

paper – from 0.04 to 0.003 (eg the paper in which photographic film is wrapped up, black velvet).

Sensitivity of the eye to colours is different. The sensitivity to blue is 40 times less than to yellow. The most bright part of the visible spectrum is yellow-green, after that the light reduces to red and violet.

Under usual circumstances man is able to discriminate about 150 colours by colour tones, 20 shades – by saturation, nearly 200 – by the light. Colour sensitivity is increased under the influence of training.

Sensitivity to colour can be reduced as a result of injuries and illnesses. 5-7% of men and 1-1,5% of women suffer from daltonism, ie the defects in colour perception. Daltonism is a phenomenon of hereditary origin. It is passed on from male parent – from father through daughter to grandchildren. Daltonism is contraindication to professional activities which is connected with distinction of colours.

The ear is the organ of **hearing** sensations. In its structure one can distinguish the sound transmitting – and sound-sensitive parts. The sound-conducting part of the ear – the outer ear; the eardrum, the anvil, the hammer and the fluctuations of sound wave into the central part of the ear, in which the sound-sensitive part of the ear is situated – the Organ of the Corti. It consists of the auditory membrane, transverse fibres, which are from 0.04 to 0.5 mm long, which are resonant with sound waves, sent from the middle ear and cause the stimulation of the sensitive cells of the Organ of the Corti. And this stimulation is passed into the auditory area of the cortex of the cerebral hemispheres the temporal lobe.

The function of auditory organ is the analysis of sounds with vibration from 16 to 20 000 Hz and their differentiation into noises and tones. Music tones are in the range from 27,5 to 4224 fluctuations.

Sound waves are distinguished by pitch, intensity and tembre (quality). The pitch sensitivity to sounds is conditioned by the frequency of sound wave fluctuation. Sounds with the sound wave within the range from 1000 to 4000 Hz are perceived better.

The intensity of a sound depends on a sound wave amplitude. It is usually measured in bels or decibels (one decibel is ten times less than one bel). The minimum increasing or reducing sound, which can be perceived by the human ear is 1 decibel.

The timbre (quality) of sound wave reflects the sound fluctuation form. The usual fluctuation of sound wave (the sound of tuning fork) has

the form of sinusoid. Music sounds (singing, the sounds of the musical instrument) – are compound sounds, which consist of the main and partial tones. The partial tones are the sounds from the fluctuation of the half, the quarter and the eighth (etc.) of the parts of the whole tone. Composite sound of certain pitch and force (which is characterized by specific timbre, ie by original combination of main and partial tones) is formed.

Children's timbre is developed together with speaking.

In the first half-year infants are capable of reacting to singing, music and intonation patterns. They can recognize the rhythm peculiarity of the speech and at the end of the first year of life they recognize the speech sounds. The tactile, temperature and pain sensitivity is the function of organs situated in the skin.

The **active** sensations give information about the measure of objects flatness and relief, which are felt when we touch them. The organs of tactile sensitivity are concentrated mostly on the finger-tips and at the top of the tongue. If we press the organs of tactile sensations the pain is felt. The tactile sensations, as well as the sight ones play a big role in perception of objects forms, size and their position in the space. Blind people have especially developed tactile sensations compensating the lack of sight while perceiving some space phenomena. Braille (alphabet for the blind) is based on this principle. In this alphabet the letters are in the form of raised lettering.

The **pain** sensations, a great number of which are mostly on the outer and inner surface of the body, signal about the defect of tissue and, certainly cause protective reaction. The direction of attention to pain, makes it stronger, and averting it makes it weaker. The sensation of pain fixed in the central part of the pain analyzer (in the cerebral cortex) causes the illusion of pain in the amputated extremities (so-called phantom pain).

The **temperature** sensations (cold and warmth sensations) are caused by the contact with the objects having the higher or lower temperature than the body one. One can bring to paradoxical warmth and cold sensations: a sudden touch to a cold object causes the sensation of warmth and the touch to the warm – a cold sensation. The temperature sensations are caused by the organic processes (by the blood circulation), and psychic states (emotional experiences). In order to describe these states the idiomatic expression “to go hot and cold” is

used in the language. The temperature sensations signal about the favourable environment for vital functions and the state of the organism health.

The **vibration** sense of the deaf and blind displays brightly. The deaf and blind react to the objects vibration, feel its rhythm.

The organ of vibration sense is not discovered yet. This sense is connected with visual and auditory sensitivity to a marked degree. The vibration sense is professionally important for those specialities, where the object vibration testifies to qualitative activity peculiarities.

The **olfactory (or smell)** sensations are done with the help of special olfactory bulbs situated in the nasal passages. Not only animals, but humans, as well, are very sensible to smells. The olfactory sensations signal to organism about the food-stuff quality, about the air (clean or not fresh) state. The human olfaction organ is absolutely sensible to smells. By olfaction man can feel the presence of the very small quantity of fragrant substance in the air (eg the sensual fragrance of the attar of roses, the smell of sulphuretted hydrogen and musk etc): for example, the dogs olfaction is so developed, that they can feel one molecule of fragrant substance dissolved in one cubic centimeter of the water. The olfactory sensations are important not only for vital functions, but also for some professions: eg the specialists of some specialities measure the chemical reaction or food-stuff quality with the help of olfaction.

The organ of the **taste** sensation is special cones sensible to the chemical irritants of retort. They are situated on the tongue and palate. The middle and lower parts of the tongue do not have the taste receptors. One can distinguish the sensitivity to bitter taste (it is the maximum taste) and the least one (the sensitivity to sweet things). Tastes can be mixed. That is why we can sense sweet and bitterly sweet taste stringently. It gives a possibility to combine different properties of food-stuff in food industry. The taste sensations, as well as the olfactory ones, are of vital importance, – they signal about a fitting food stuff for use. This sensitivity is necessary professionally in culinary specialities. For instance, in food industry the staff, involved into tasting food products, is to have high taste sensation and the ability to differentiate the presence of flavouring substances with the purpose of regulating quality production. The taste sensations are developed properly while having some practice or weaken, if they are not used.

The static or gravitational sensations reflect the position of our body in the space: lying, standing, sitting, equilibrium, falling. The receptors of these sensations are located in the vestibular apparatus of the inner ear (ie its front part and semicircular canals). When the position of the body is changed regarding the flatness

of the earth (as it can be while riding on the water, being on the board of the plane, and while having the disease of the vestibular apparatus giddiness, the lose of equilibrium, orientation in the space. The pilots, cosmonauts and those, who work on the boat of the vessel have to have proper vestibular apparatus, and some problems with it are considered to be contra-indicated.

The kinesthetic sensations reflect motions and states of some parts of the body: the hands, legs, head and body. The receptors of these sensations – the special organs – are situated in the muscles and sinews. The pressure on these organs during motions cause the position sensation of the parts of the body. The kinesthetic sensations, giving some information about the motions force, speed and measure, favour the regulation of a number of actions. In many professions and physical culture these sensations favour coordination. Language kinesthetic is the basis of articulation. So, the formation of kinesthetic sensations in the process of upbringing and training is the important task of educational and sports establishments, labour training and education.

The organic sensations signal about such states of the organism as hunger, thirst, tiredness, pain and the state of the health. Their analyzers are situated inside the organism and react to the sufficiency of essential nutrient substances in it, eg to oxygen or the presence of decay products in the parts of the body and the nervous system which occur while working or using the products of low quality and alcohol, etc.

The organic sensations cause different emotional states and man tries to keep or get rid of them by his actions. Expediency of these actions (eg using food, drinks, medicines, having some rest, working) requires some knowledge about the nature of the organic sensations, the reasons of their origin and necessity of some actions on their obviating, or satisfaction. Some medicines, food, smoking make unpleasant sensations weaker, but at the same time they make a big harm to the organism.

10.4. Basic Characteristics of Sensations

Each type of sensations is originated and functions according to certain conformities to natural laws. But all the sensations have much in common. They are the following: their **quality, intensity and duration**. The distinctive characteristics of sensations are **adaptation, syneheses, synesthesia, sensibilization, knack and interaction**.

The quality of sensation is the peculiarity due to which one sensation differs from others, for instance, the colour tone, the peculiarities of hearing, smell, taste sensations etc.

The quality of sensations are caused by specific types of irritants which come to the sense organs from outside. It is conditioned by the sense organ structure, which is able to reflect the energy influence of outer world.

The sensations **intensity** is the quantitative characteristic of sensations, ie bigger or lesser force of their display. The intensity of sensations depends on the irritant force which causes them. But this dependence is very complicated and has certain conformities to natural laws. First of all, among all sensations the sensitivity of analyzer and threshold of this sensitivity become apparent.

Sensitivity is the analyzer's ability to react to adequate irritant action and feel it. Special psychological and physiological researches testify to that fact that adequate irritant causes sensation in that case when the intensity of its action and also its force reach the certain level, ie threshold. Subthreshold irritant force does not cause any sensation. Hence, the **threshold level** is the level of irritant intensity which is able to cause sensation. One can distinguish absolute and difference thresholds. *Absolute threshold* can be low and high.

Low threshold of sensation nature characterizes the measure acuity of analyzer's to the adequate irritant, it can be measured. If we letter absolute threshold by P and absolute sensitivity by E, then the connection of absolute sensitivity and absolute threshold can be expressed by the formula $E = 1/P$. For instance, if an individual feels the tick of the clock at the distance of 5 metres, then the threshold of his auditory sensitivity is $E = 1/5$. If the tick of the clock is differentiated by a man at the distance of 8 metres, then low threshold of his auditory sensation is $E = 1/8$. So, threshold of auditory sensation of the second man is better, than of the first one.

High sensitivity threshold is the maximum irritant force, which still causes adequate sensation. The further increase of its force causes an inadequate sensation – a pain one or some other.

Absolute sensitivity and the quantity of sensation threshold are in inverse dependence. The higher sensitivity is, the lower its threshold is, and, on the contrary, when sensitivity is weak a sensation threshold increases, i.e. greater irritant intensity is necessary to cause the sensation of its action.

Sensation threshold depends on many individual peculiarities – on the born ones (the type of the nervous system, analyzer's sensitivity) and also on acquired peculiarities (labour, the education conditions, the health state). The proper conditions of life, labour and education contribute to the development of this or that sensitivity, but, in its turn, the inauspicious conditions cause its extinction. Removal of the high absolute threshold from the low one characterizes personality sensitivity diapason of sensation. At elderly age this diapason considerably diminishes. Besides absolute threshold sensation one can distinguish distinction threshold or difference threshold. It is the ability to feel the least difference of intensity of two acting irritants, to differentiate the irritants by the force, to place them by the force from the weakest to the strongest one. Researches proved, that difference sensitivity and the ability to distinguish irritants intensity is determined naturally. French physicist P. Buger proved that the noticeable difference of light brightness is constant. It is equal to $1/100$ of brightness initial quantity. Consequently, to take notice of difference between some light and light which power is 200 Vt, it is necessary, that it increased in $1/100$ of its brightness. Such one will be the light source brightness with the power of 202 Vt. German physiologist E. Weber showed, that the sensation of difference in weight of two objects is equal to $1/30$ of weight of the initial object. For instance, in order to feel a weight difference of 100 g it is necessary to add $1/30$ of this weight to 100g, that is 3,4 g. Ratio constancy of difference between the initial irritant and equated irritant which is compared with it in order to feel the difference in intensity for other analyzers has been proved as well. For sound sensitivity this difference is equal to $1/10$, for taste sensitivity – $1/6$ - $1/10$ and for olfactory one – $1/4$ - $1/3$.

Sensitivity to the irritants force difference, as well as absolute sensitivity, are in inverse dependence. High sensitivity has lesser

threshold, and low sensitivity has bigger threshold, ie in the first case the quantity of difference will be lesser and, correspondingly, in the second one – bigger. The physiological basis of difference threshold is the process of inhibiting. The sensitivity to distinction of irritants force is of great importance for the variety of professional activity – musical, culinary, in materials processing (eg in wood, metal and plastic ones).

Sensation of irritant force can be increased and reduced. Increasing of sensitivity is caused by **adaptation**, ie the process of adapting of sense-organ to irritant. A sight organ, being adapted to a bright light, reduces its sensitivity, and in darkness it rises in 200 thousand times. Adaptation phenomenon displays in tactile, smell olfactory, and auditory sensitivity. In pain and static sensitivity it displays in considerably lesser measure. Analyser adaptation to irritant force has both positive and negative significance. In one cases reducing irritant force contributes to vital functions (eg adaptation to strong sounds, insignificant adaptation to the organism state in the space), and in others it makes considerable harm (eg olfactory adaptation under the conditions of gased environment).

Unlike analyser adaptation to the irritant, one can observe augmentation of sensitivity, or **sensibilization** to irritant. If to look, listen to and savour diligently, attentively, then sensibility to objects characteristics and phenomena becomes more clear, more bright, and objects and their qualities are distinguished better.

The activity of analyzers are not isolated, they interact with each other. This **interaction** becomes apparent in different ways: in one cases as synesthesia of sensations, eg the sensation of coloured sound («mellow charm»), the sensation of colours warmth – eg «cold» or «warm» tones of the colours etc., and in others – sensation increasing and reducing of one irritants under the influence of others can be felt. It is proved, that illumination of the eye increases auditory sensitivity, and the weak sounds increases visual sensitivity, the shower-bath of the head with the cold water makes sensitivity to red colour effective, etc.

Sensations have **afteraction** in analyzers. This phenomenon is explained by certain inertness of the nervous processes, which causes the irritant sensation (visual, tactile, auditory, irritants in the action, etc.) for some time after cessation of its action. The sensation of the light, for example, sometimes continues, when the lamp is switched off; the

sensation of object pressure on the shoulder continues during some time after it has been already thrown off. In visual sensitivity afteraction of analysers display in successive images in mixing of the colours.

10.5. Sensation and Activity

Sensitivity to irritants effect is conditioned by their psycho-physiological characteristics, structure peculiarities, and importance for vital functions. However, reflecting analyser possibilities are not constant and invariable. It has been proved, that human sensations are changed and developed under the life influence and demands of practical labour activity. Sensitivity of each analyzer, to a great extent, depends on the way it is used in the activity process. One can distinguish two groups of factors under the influence of which sensibilization of sensations occur:

- the necessity of compensation of sensory defects (blindness, deafness);

- the specific demands for human professional activity.

Consequently, the loss of the visual analyzer sensation is compensated by the rise of tactile analyzer's sensation. It has been proved by special researches, that the amount of pacenial bogies on the fingertips of the blind increases almost in 50%. Also sensitivity arises to such irritants which do not have adequate analysers. For instance, the same is the distance sensitivity of the blind to the objects.

Sensibilization of sensitivity is typical of the people, who are involved into professional activity that demands high development of the appropriate sensations for a long time.

For instance, the textile workers can distinguish from 40 to 60 hues of the black colour; an experienced grinder is capable of seeing the gap that is equal to 0,0005 mm in the details. But untrained man can distinguish the gap within the bounds of 0,1 mm. The workers of food industry have highly developed taste sensations. For instance, the tasters can distinguish the subtle differences and characteristics of wines by taste (eg from what sort of grape a wine is made; where grapes have been grown, its strength, sugar contents and maturation, etc). Sensibilization of sensations is explained by that fact that differentiating objects qualities are meaningful for human successful practical activity and its orientation in the environment.

Theme Key Notions

↔ Perceptible cognition, sensation, analyser, contact sensations, distant sensations, exteriorreceptors, interiorreceptors, proprioceptors, sensitivity, sensitivity threshold, adaptation, adequate irritant, sensibilization, synesthesia.

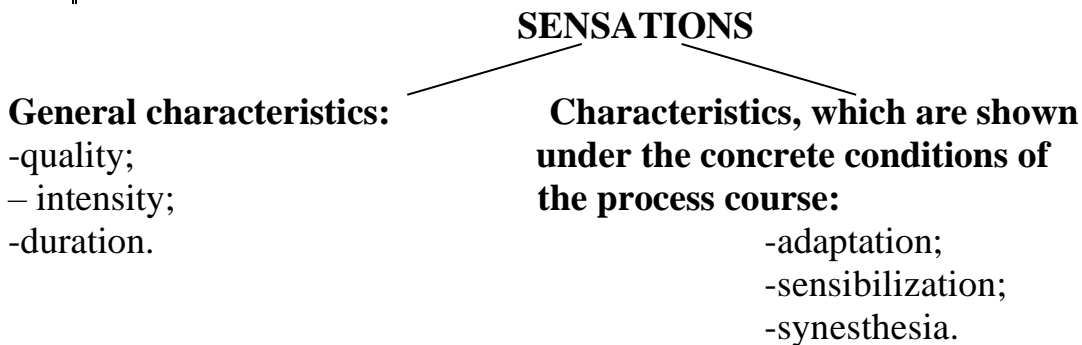
Formalized Structure of the Theme Contents

Cognitive function of sensations:

reflection of some qualities and characteristics of objects.

Physiological mechanism of sensations:

immediate action of the irritant on analyser



Questions for Individual Work

1. Why does psychic process of «sensation» belong to perceptible cognition?
2. What is the peculiarity of sensations as perceptible form of reality reflection?
3. According to what principles are sensations subdivided into different types?
4. Are all irritants operating on sense-organs can be reflected with the help of sensations objectively?
5. Characterize the basic characteristics of sensations.
6. Name the basic sensitivity thresholds. What are they determined by?
7. In what way do the compensatory possibilities of sensations display?
8. What is sensibilization of sensations and what is its mechanism?

9. What does synesthesia of sensation display in?
10. Which irritant is called an adequate one?
11. What is sensation adaptation and what is its mechanism?
12. In what way are sensations and activity connected?
13. In what way can individual possibilities of human sensations display?

Alternative Test Tasks for Self-Control

1. Is the following definition of the sensation process sufficient or not: Sensation is the process of reflection of some objects characteristics and phenomena in the human brain?
2. Can one affirm that in each act of human cognitive activity the perceptible cognition anticipates the abstract one?
3. Is the following statement true or false: The subjective nature of sensations is characterized by the fact that the reflection subject is a man, and psycho-physiological peculiarities of the person who feels are always marked on the reflection results.
4. Do you agree with the assertion, that in the analysis of irritants, which effect the sense-organs, all the parts of analyzer participate?
5. Can one affirm, that the weak irritants reinforce analyser's sensitivity, and the strong irritants make it weaker?
6. Are all the irritants operating on man analysers objectively, are reflected by them?
7. Do you agree with assertion, that the sensation of the body organs motions are provided by means of interoreceptors?
8. Do you agree with the assertion, that the sensation of sound intensity is provided by the organ of Corti of the auditory receptor?
9. Are all of the following enumerated sensations belong to kinesthetic ones: the feel of motion, sensation of equilibrium, the sensation of the body regulation in the space?
10. Is the following classification of sensations completed or not: All the sensations are divided into contact, distant, interoreceptive, exteroceptive, proprioceptive, vision, auditory, olfactory, taste, tactile, pain, temperature, kinesthetic, static and organic ones?
11. Does interaction of sensation always cause the sensibilization effect?
12. Is a compensation phenomenon in the case of analyzer's damage natural and necessary?

Task and Problem-Solving Situations

1. Explain, why are sensations primary form of reality reflection genetically?
2. What does the subjective nature of sensations display in and what is it caused by?
3. What way can one explain in each following concrete case the complaints about the disorders of the vision sensations: «I can see the objects in bright illumination badly», «As soon as I come from the street into a badly lighted room, I can see nothing for a long time», «I can not read: the letters and lines become blurred in the book»?
4. How can the fact, that increasing irritant action intensity in one cases is felt, and in others is not felt, be explained?
5. Why a non-verbal effect of the speech intercourse, the intonation, does sometimes loose the expressive function and in what way does it influence communication?
6. Sensations are sometimes caused by the inadequate irritants action on analysers. What significance for medical practice can this phenomenon have?

Used and Suggested Literature

1. Загальна психологія: Підруч. для студентів вищ. навч. закладів / За загальн. ред. Акад. С.Д.Максименка. – К.: Форум, 2002.
2. Максименко СД. Общая психология. – М.: Рефл-бук, К.: Ваклер, 2001.
3. Психологія / За ред. Г.С. Костюка. – К.: Рад. школа, 1968.
4. Sergey Maksymenko. General Psychology. – Vinnytsya, 2005.

Part 11

PERCEPTION

11.1. Concept of Perception

While contacting with the environment immediately, man obtains information not only about certain characteristics and qualities of objects or phenomena, feeling them, but at the same time he gets information about objects themselves as the integrity. Such integral reflection in the human brain characterizes the second link of the complex process of perceptible cognition, namely perception.

Perception -is a psychic process of reflecting subjects and phenomena in the whole in the human brain, as the whole complex of their qualities and characteristics while their immediate acting on the sense-organs.

In perception of an object as original synthesis of its characteristics a reaction to the complex irritant occurs, reflex on connection between its qualities. As a result of perception the subjective images of perceived objects – imaginations arise. The process of perception takes place in the interconnection with other psychic processes of personality: thinking (we realize a perception object), language (we name it by a word), senses (we express our attitude towards it), will (we organize perceptive activity by conscious effort). Personality emotional states, aspirations, experience of everything we perceive play an important role in perception object nature.

Emotions appear as motive internal inclination to cognition of objects and phenomena. Activity and effectiveness action of personality play an important role in perception of objects and phenomena of the world. It displays in sense-organs motions, directed to perceived objects, in their palpation, studying their contours and separate parts by sight. In all types of perception a motored component promotes to singling out the object among the others. I. Sechenov paid his attention to this fact pointing out that the sensory and motor organs are united into the single reflecting system while gaining some experience. Practical actions are considered to be one of the basic preconditions of adequate perception of objective reality objects and phenomena.

11.2 Types of Perception

Sensations and perception display in the unity in perceptible cognition. Perception does not exist without sensations. Perception is distinguished by the sensory peculiarities (visual, auditory, olfactory, touch, taste, kinesthetic, pain etc. ones), by the attitude towards the psychic life (intellectual, emotional, aesthetic), by perception complication (the perception of the space, movement and time).

The sensory perception or nature coincides with sensation in many aspects. Unlike sensation, the specific aspect of perception consists in the fact that this or that particular side of visual, auditory, tactile perception becomes an object of realization, understanding of its sense for life. The sensory perception of objects and reality phenomena takes place in the complex sense-organs interaction: sight and kinesthetic sensations, sight and hearing etc. In this case this one of the perception varieties becomes the leading, and the others – auxiliary ones. For example, in musical activity hearing is always a leading type of perception, and kinesthetic sensitivity is an auxiliary one. Kinesthetic sensitivity of experienced surgeon plays an important role. It controls and regulates motions, necessary for operating on a patient.

Perception is of a particular importance in human psychic life. Intellectual or emotional side of object or phenomenon can be reflected specifically. Scientific knowledge needs intellectual perception, ie perception of essence, understanding notions and terms, executed actions, reinforced memory, attention and thinking activity. Emotional perception displays while perceiving literary and art works vividly. In this perception variety an emotional side, immediate influence of perceived object on moral and aesthetic senses play a leading role. It goes without saying, artistic perception is in the unity with intellectual one. Understanding of the perceived object is its necessary precondition, but the emotional experience in artistic perception determines its nature: elevated mood or depression, the experience of high, comic, tragic, ie everything that is excited by perceived material. Perception by nature is perception of space motion and time. In perception of space, motion and time different analysers in their intercourse take greater or lesser part.

Space perception takes place due to visual, kinesthetic and auditory analysers. The object of space perception is differentiation of

objects dimensions and forms, distance, their placing in space, depth and relief. Perception of dimensions by sight and touch achieves considerable perfection. Perception of the horizontal lines is more exact, than perception of the vertical ones. The ability of the eye to perceive objects properly plays an important role in space perception. The spatial phenomena are perceived rather exactly as well as tactile and kinesthetic ones. The blind, for example, while learning geography and performing labour actions orientate themselves by touch on the relief globe in placing details of labour objects successfully.

By hearing man perceives the sounds direction in space properly: at distance, near, above, down, to the right or to the left. One can define the direction, by hearing with exactness to 10 degrees. At monoral perception of sound the directions perception is not precise.

Distance, depth and relief perception takes place differently at monocular and binocular vision. At binocular one the perception (perception by two eyes) exactness distance determination is bigger, than at the monocular one (perception by one eye). Depth and relief perception depends on the way an object is reflected onto the retina at the corresponding and disparating points of the retina.

If corresponding retina points, ie which are placed symmetrically in the right and left eyes from the central points, are simulated, then reflection is perceived as one object in one plane. If a perceived object on the retina is represented disparately, ie by both eyes located from the central point differently, then object is seen as doubled (if disparity is considerable) or dimensional, in relief (if disparity is insignificant). The stereoscopes and three-dimensional movie are based on this principle.

While perceiving space, depending on location of the objects in space, the optical illusions, (ie false perception of dimensions, parallelism, convexity, concavity) appear. A straight wand, submerged into the glass of water, seems to be bent; the sun dimension seems to be greater in the morning and in the evening in comparison with the way it is perceived in the zenith; two identical angles, circles, lines seem to be different among the bigger or lesser images by the dimension of the same objects, etc.

In space perception accommodation and convergence of the sight organ play an important role. **Accommodation** is a crystalline lens protuberance change according to the distance to the object, and **convergence** is the direction of the eyes to the object of perception.

These physical changes in the sight organ are connected with distance and form perception.

Movement perception is change reflection of objects in space. Perception of movement depends on the way a moving object is perceived in comparison with other immovable or moving object. In the first case the object movement perceived more adequately, than in the second one. While perceiving a moving object comparatively with an other object moved in the same or opposite direction, illusion of acceleration absence or presence may appear. An immovable object, comparatively with which the movement of other object is perceived, seems to be movable, but its movement is perceived in the opposite direction.

If in the field of vision there are not only movable objects, comparatively with which a movable object is perceived, then movement is perceived 15-20 times slower. The aircraft movement against the cloudless sky seems to be slower.

Time perception is the reflection of duration and sequence of irritant effects on the organism. There is no special organ for time perception. In time perception all the analyzers are involved, reflecting duration of stimuli influence. Different organic alterations, rhythm of their action (eg breathing, palpitation etc.) play an important role.

Immediate time duration perception is insignificant (0,75s). Man perceives the longer periods of time result of counting them by equal parts within one second. So, the big time periods are perceived in mediated way.

Sequence perception occurs due to intervals in the irritants action duration on analyzers. Duration perception depends on the attitude towards perceived object nature and its peculiarities. Perception of interesting objects causes illusion of time, movement acceleration, but perception of uninteresting, unpleasant objects and forced waiting create illusion of action duration deceleration.

Knowledge of perception varieties and their conformities to natural laws is of vital importance for forming professional qualities.

11.3. Perception Characteristics

The important condition of successful perception of reality objects is its **selection**. Selection of perception object is stipulated by human

needs and interests, the necessity for knowledge, professional orientation etc.

The basic perception characteristics are: **subjectivity, integrity, structuring, constancy and comprehension**. Perception subjectivity **displays in** correlating information about the objects with the objects themselves as sources of certain information.

Such objectivity of obtained impressions of concrete objects of the real surrounding ensures orientation in real world and regulation of human practical activity. Perception subjectivity is gained characteristic property, formed in the process of human active interaction with objective surrounding and grounded on the certain actions system, which leads to comprehension of the world's subjectivity.

Objects and phenomena are perceived as the whole, in which its separate components appear as unity. The absence of some object part or detail does not prevent from integral perceiving. The attitude towards an object in the whole, that developed in the process of gaining some experience, determines the structure of perception. Only in the process of analysis an object is divided into constituents, and its different characteristics are distinguished.

Integral perception is not always comprehended as an object having a certain structure. The degree of perceived object comprehension depends on personality experience and knowledge. That is why the same objects are perceived and comprehended by people of the different cultural development level, children and adults differently. According to the degree of perception comprehension one can distinguish **syncretism perception**, typical signs of which are indivisibility and the unity of perceived object. It is typical of children and inexperienced people. Syncretism causes-inadequate madequate perception. During such perception in consciousness specific peculiarities, which are typical only of this object, don't appear and it can be perceived for other object, which resembles a perceived one. Some psychologists explain perception syncretism of children and uncultural adults by their biological underdevelopment. Such syncretism explanation is not well-founded. Syncretism depends, mainly, on person's experience and knowledge, which are gained in the process of development and maturing of the organism.

Perception constancy consists in that that the form, dimensions, colour of objects are perceived in more or less stereotype way irrespective of conditions under which an object is perceived. The colour of coal is perceived as black, though in the sun it seems to be yellowish; a cylinder is perceived as round, though in some positions its form reminds of ellipse. The mechanism of constant perception is the dynamic stereotypes, ie temporary nervous relationship formed under the influence of object repeated perception within the certain sequence system structure.

In perception of objects and phenomena person's previous experience and attitude play an important role. Depending on fullness of the experience essence, attitude and self-discipline a perceived object is perceived in consciousness more or less adequately. The previous experience essence, its relationship with perceived object, interest in it are effectiveness precondition and adequacy of perception, which is called **apperception**. In many cases in the objects man can see what he wants to see in them depending on the purpose of his perception.

Perception is determined by both objective and subjective conditions. Among the objective conditions, which ensure perception adequacy, one can mention brightness, sonority, object dynamism, ie the irritant force, and physical conditions of perception: object illumination, the distance from the perceiving person, object structure, where its components, the contrast of the background and figure, are become visible clearly.

Disguised objects, different types of camouflage, which cause partial or full merger of the object with the background, are perceived unclearly, inadequately. **Attentiveness** and **power of observation** are especially important among the subjective conditions of perception.

Perception can be damaged as a result of the organic damage to the cerebral hemispheres of the cortex. Wounds and injuries of the head, cerebral haemorrhage cause sensory or motor aphasia (damage to the speech, pronunciation, loss the ability to synthesize and generalize), inability, for example, to abstract the colour of one object and transfer it onto the other one. Under the influence of deep negative emotional experiences, aspirations to see and listen to something **hallucinations** appear, ie perceptions of objects, sounds,

smells, which really do not exist, which do not have an effect on our sense-organs. Hallucinations are of internal origin, without the corresponding exterior irritation. During hallucinations in the cortex of the big hemispheres of the cerebrum temporal nervous relationship formed before become more active under the influence of different objects and phenomena of reality.

11.4. Observational Learning and Observation

The important conditions of adequate perception are **observational learning** and **observation**. They display during arbitrary purposeful perception brightly. Observational learning distinguishes arbitrary perception from spontaneous one most vividly. The most typical index of observational learning is prolonged purposeful concentration of attention on the object of perception. It is carried out with the certain purpose and definite plan. Observational learning can be prolonged, when it is planned to observe changes in animals behaviour under the influence of care of them, to observe child's development under educational influence, and students' success in gaining knowledge depending on conditions and education methods. It can be of short-duration when the phenomena of rapid duration occur.

In the process of observational learning attention can concentrate both on the phenomenon in general or on its separate details. It depends on cognitive aim of observation learning.

For a successful observational learning its essential to determine its aims and work out its plan (where, when and in what way to do observational learning), to create the necessary conditions for it, to prepare some methods of observational learning (certain devices, instruments) and fixating its results. It is necessary to be good at observing learning. The latter has especially great importance – not all the children and adults are able to observe. The level of the ability to observe depends both on learning to observe and on the personality quality, ie the ability to observe things. If an infant is taught to observe nature phenomena, animals behaviour, this or that aspect of life from the very childhood, then in his character such trait as observation is developed, ie the ability to observe barely visible aspects of objects, but which, at the same time, are considered to be important for their essence.

Observational learning and observation play a great role in teaching and human labour activity. It is known that C. Darwin paid much attention to observational learning and observation (He explained his evolutionary theory by his observation).

I. Pavlov found observation learning to be absolutely essential for scientist. There was a motor at his institution: "Observational learning, observational learning and observational learning!". K. Ushunskiy advised instructors to teach children to observe in order to develop their mental abilities because in his opinion observational learning gives the necessary material and facts for thinking.

Theme Key Notions

☞ Perception, complex irritant, subjectivity, objectivity, perception integrity, perception structuring, realization of perception, constancy perception, apperception, illusion, space perception, movement perception, time perception, observational learning, observation, convergence, accommodation, desparating points, syncretism perception.

Formalized Structure of the Theme Contents

Perception cognitive function:

reflection of reality objects phenomena in general.

Perception physiological mechanism:

Formation of the conditioned reflex connections systems caused by immediate action of the complex irritant on analyzer.

PERCEPTION

Characteristics:

- subjectivity;
- integrity;
- structuring;
- comprehension;
- constancy.

Varieties according to analyzers

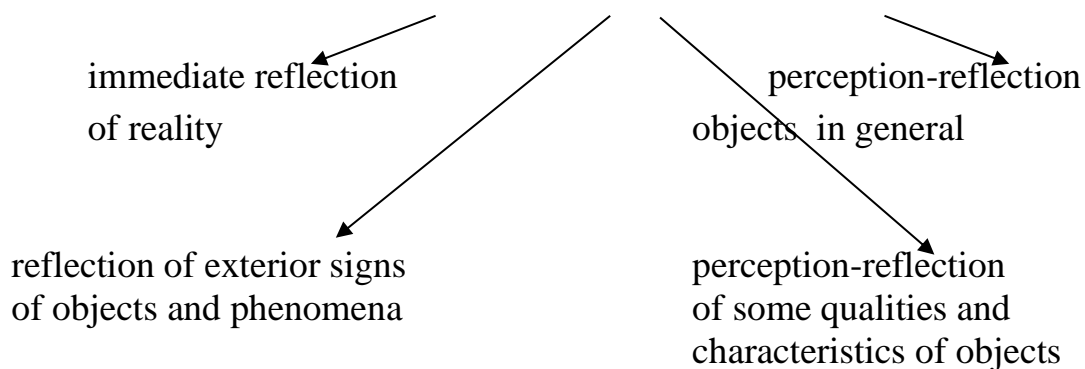
participation:

- visual;
- taste;
- auditory;
- olfactory;
- motor;
- touch;
- pain;
- organic.

Varieties depending on complication of objects reflected

- space perception;
- movement perception;
- time perception.

SENSE COGNITION



Questions for Individual Work

1. What psychic process is called perception?
2. What aspects are common and different between perception and sensation?
3. Give the coverage of general perception characteristics.
4. What is perception structure and what is its mechanism?

5. What is constancy perception and what is its mechanism?
6. In what way does apperception display in perception?
7. What influence does previous experience have on perception?
8. What factors determine objective conditions of perception?
9. What factors determine subjective conditions of perception?
10. What is illusion in perception and what is its mechanism?
11. What is observational learning?
12. What is observation?
13. In what way can professional observation display?

Alternative Test Tasks for Self-Control

1. Do you agree with the statement, that the difference between perception and sensation come to quantitative characteristics of reflection results?
2. Can one define the process of perception as synthesis of sensations?
3. Does all the basic perception characteristics been enumerated: subjectivity, integrity, structuring, comprehension, and constancy?
4. Does apperception always influence positively the process of objects perception?
5. Is the structuring of perception without its comprehension possible or not?
6. Can one affirm that perception comprehension is conditioned, exclusively, by such its characteristic as subjectivity?
7. Is perception constancy objectively determined by phenomenon?
8. Do you agree with the statement that the act of perception is always analytico-synthetic process?
9. Does kinesthetic analyzer take part in the perception of space characteristics of objects?
10. Do you agree that the movement analyzer has a priority role in the complicated perception forms?

Task and Problem-Solving Situations

1. Why perception is not considered to be an amount of sensations? How do you understand the statement, that perception is a result of complicated analytical and synthetic activity?
2. Explain, what role do the eyes movement play in complicated visual perception. Why is perception process considered to be human perceptive activity?

3. In the sky the clouds sometimes are perceived as integral objects reminding animals, birds, rock etc. Which important perception peculiarity is shown in it?

4. Explain the following fact: when a man goes in strange locality for the first time, searching for the way independently, then for the second time he will find it easily. But when he goes with a companion, who knows the way well, then for the second time he will hardly find this way.

5. It is known, that in different situations one and the same interval of time is perceived differently. Explain the reasons of subjective time estimation by human.

6. How it can be explained, that the blind from birth after the successful operation at the very beginning do not distinguish neither form nor size and objects remoteness?

7. Observational learning is personality quality, necessary for successful activity in general, and especially for medical and pedagogic ones. What conditions contribute to doctor's observational learning development? What mistakes in the disease diagnostics are caused by insufficient doctor's observational learning?

8. How it can be explained, that one and the same lecture can be evaluated by listeners differently: as «informative», «popular», «interesting», «useful», «boring», «uninteresting».

Used and Suggested Literature

1. Загальна психологія: Підруч. для студентів вищ. навч. закладів / За загальн. ред. акад. С.Д. Максименка. – К.: Форум, 2002.

2. Максименко С.Д. Общая психология. – М.: Рефл-бук, К.: Вак-лер, 2001.

3. Максименко С.Д. Психологія в соціальній та педагогічній практиці: методологія, методи, програми, процедури: Навчальний посібник для вищої школи. – К.: Наукова думка, 1998.

4. Психологія / За ред. Г.С. Костюка. – К.: Рад. школа, 1968.

5. Sergey Maksymenko. General Psychology. – Vinnytsya, 2005.

Part 12

THINKING

12.1. Concept of Thinking. Social Nature of Thinking

Cognitive human activity begins with sensations and perceptions. While reflecting reality at the sense level with analyser participation, man obtains various information about external properties and signs of objects, which are fixed in his consciousness in the form of sound, space, time, taste, touch and other images. However, such information about the objective world to human is insufficient for satisfaction of various needs of practical activity, which demands deep and comprehensive knowledge of objects, which one can deal with. Exhaustive knowledge of reality objects, their internal essence not presented immediately in sensations and perceptions, and man can obtain it by **thinking** – the higher abstract cognition form of objective reality. Mental reality reflection is characterized by a number of peculiarities. One of these peculiarities is expressed in mediated nature of mental reality reflection.

For instance, it is impossible to see the structure of atomic nucleus, chemical reaction, physiological processes, which take place in a living cell, ultraviolet radiation etc. In order to reveal all these characteristics and properties immediately not visible, but important for understanding, human being resorts to reflecting, calculations, experiments, comparison of facts and other mediated actions. Mediation can differ by complication depending on the peculiarities of cognitive task and cognition object.

Man resorts **to mediated cognition** in the case, when immediate cognition is impossible because of human analysers imperfection or inexpediency, that is caused by cognition process complication. Mediation of thinking displays when all its acts take place with the help of the word and previous experience, which is engraved in human memory.

One more thinking sign consists in the fact that due to it in the objects not any, but essential signs and properties, that are based on the objective relations and conformities to natural laws, represented the very objects and phenomena, are reflected. The essential signs and

relations express the essence of objects and phenomena, their cause and effect dependence. Their revealing gives an opportunity to comprehend the laws, according to which the processes take place in the nature and society, to influence them in one's interests.

The next peculiarity of thinking is generalized nature of reality reflection. With the help of thinking man perceives essential signs, common for objects related in this or that respect and imagines them generally, using notions. In such a way he perceives general metals properties, geometrical figures, functioning principles of the technical systems, development of the psychic phenomena etc.

The above enumerated signs of thinking characterize it as the specific form of abstract reality cognition, as complicated cognitive activity.

Thinking is a process of mediated and generalized reflection of objects and phenomena of objective reality in their essential relationship and attitudes by human being.

Human thinking is connected indissolubly with the language, which is the tool of thinking formation and means of its existence. In the word gained cognitive experience, which man uses in the case of necessity, is fastened. While generalizing in the word his knowledge about reality objects and phenomena, man goes out of the limits of sensations and perceptions immediately, broadens his cognitive possibilities and improves thinking greatly.

Mental activity is connected with **practice organically**. Practice is the source of mental activity. Thinking is born by needs of human practice and developed in the process of searching the ways of their satisfaction. Even for scientific theoretical problems of cognition, which are not connected with practice needs immediately, it is their distant source. In its turn, practical activity is impossible without thinking, it stimulates its permanent development, contributing to introduction of achievements of human thought in the different spheres of society life.

The significance of thinking in human life consists in giving a possibility of scientific cognition of the world, prevision and prognostication of the development of the events, practical acquiring conformities to natural laws of objective reality, using them in order to satisfy human needs and interests. Thinking is the basis of conscious personality activity and formation of one's mental and other characteristics. The level of thinking development determines, to what

degree man is capable of orienting in ambient world, how he controls the circumstances and his behaviour.

Human mental activity, that is directed to cognition of conformities to natural laws of the objective world, is of social nature. Social and historical conditionality of thinking displays in the fact that when in each reality act of cognition man is guided by experience accumulated by previous generations, uses the methods of cognition which were created by them. First of all, the speech belongs to such methods as the tool of expression, generalization and preservation of human cognitive activity results, and science and social practice as well. The range of generalizations and the depth of revealing the essence of phenomena are conditioned, to some degree, also by results of reality cognition, gained at the previous stage of historical development of human society. According to D.Pysarev's opinion, as one can feel the wave pressure of the whole ocean, so each our thought, whatever it seems new or original, is based on the experience of many previous generations.

Consequently, thought thinking of every human develops and forms in the process of one's own active cognitive activity, its essence and nature is always conditioned by the general level of cognition, reached by society at the certain stage of its development. It gives the grounds to consider thinking as a product of social and historical development. Social nature of thinking displays also in the society needs, nature of those cognitive tasks, at the solving of which it is directed.

The object of mental activity is always the problems of vital importance, raised by contemporaneity. At the present historical stage the ecological problems and problems of economic integration of countries under the conditions of market relations and others are considered to be the problems of such type. Deepening of the social essence of thinking it is conditioned by the need to involve permanently experience gained by exports in closely related spheres of knowledge. Due to social and historical thinking nature humanity provides a succession in transmission of achieved intellectual achievements from generation to generation, creating the conditions for social, scientific and technical progress.

12.2. Mental Actions and Thinking Operations

To comprehend a certain object, one has to know the facts, that characterize it. Transition from facts to revealing their essence,

to generalizing deductions takes place with the help of mental and practical actions.

Mental actions are actions with the objects, reflected in images, conceptions and notions about them. These actions take place mentally with the help of the speech. Before acting on objects (eg taking them apart, putting them together, to compose, to build something from them), man makes it in his mind, not coming into contact with these objects and not changing a structure of object itself. Depending on images playing a leading role, mental actions can be sensory, perceptive and imaginary, thinking. **Thinking actions** (eg while solving arithmetic tasks) are formed on the basis of external practical actions. Researches of the process of their formation (P. Galperin, N. Talyzina) showed that, first of all, actions occur with the support of material objects or their pictures (a child estimates the amount of them practically). Further they are realized with the help of loud speech without support on objects or their pictures. Finally, actions are done in the mind with the help of internal speech, ie they become internal thinking actions. Later they are automatized, generalized and come to the end.

Mental actions, as practical ones, are various and connected with concrete material.

In mental actions one can single out their basic constituents, or processes – **mental operations**: comparison, analysis, synthesis, abstraction, generalization, classification, systematization.

Comparison is an important mental operation. By its means similar and distinctive signs and properties of objects are cognized. Operations of comparison can differ by complication depending on the task or essence of compared objects. Comparison plays an important role in discovering essential objects signs.

“We cognize everything in the world through comparison, and if we come across new object, which we can neither compare with, nor differentiate from something or somebody (if such object would be possible), then we would neither have any idea about this object, nor say a single word about it”, – K. Ushynsky writes. [17].

Analysis and synthesis. **Analysis** in thinking is continuation of the analysis, that takes place in sense reflection of objective reality. It is mental examining of consciousness objects, singling out their parts, sides, aspects, elements, signs and properties.

Any objects and their properties can be the object of analysis. Analysis starts in practical actions and comes to the end by imaginary mental analysis. Analysis is necessary for understanding of the essence of any object, but does not provide it by itself.

Understanding needs not only analysis, but also synthesis. Analysis and synthesis are opposite but, at the same time, indissolubly connected processes.

Synthesis is imaginary combination of separate parts, sides, aspects, elements, signs and objects properties into a single new qualitatively whole.

Synthesis, as well as analysis, at first arises in practical activity, and then becomes thinking action. Elements, views, images, conceptions, can be synthesized. Analysis and synthesis are basic mental operations, that provide full and deep cognition of reality in unity.

Abstraction and generalization. A mental analysis turns into abstraction (the word “to abstract” is from Latin word “*abstragere*” which means to distract, to refract), that is, imaginary dis severance of one signs and properties of objects from others and from the objects, themselves which they are typical of.

Object signs, singled out in abstraction process, are understood irrespective of other its signs and become an independent thinking object. Consequently, while observing the shift of different by nature objects in the space: (eg the shift of a car, a man, a bird, clouds, celestial bodies) man singles out movement as joint property for them and comprehend it as independent category.

The use of abstraction operation in cognitive activity gives a possibility to reflect the most complicated phenomena of objective reality more deeply and fully. Particularly, scientific theoretical thinking is characterized by high level of abstractness. It plays a leading role in the process of notions formation, which are fundamental for any knowledge. Abstraction prepares the basis for deep generalizations. Operation of generalization is shown in mental imaginary unification of objects and phenomena into the groups by essential signs, singled out in the process of abstraction.

Generalization is continuation and deepening of synthesizing brain activity with the help of the word. The word does generalizing function, based on the signs nature of essential properties and relations reflected by it, that are typical of objects.

Generalization of singled out signs and phenomena of objects gives a opportunity to group objects by the genitive and other specific signs. Such operation is called **classification**. Classification is carried out with the purpose of singling out and further unification of objects on the basis of common essential signs. Classification contributes to regulation of knowledge and more deep understanding of their mental structure. To do a classification, one has to define its aim clearly, single out the objects signs that undergo the classification, to balance objects by the special signs, to define the general classification bases, to group the objects by certain principle.

Regulation of knowledge on the grounds of the maximum wide joint objects of groups signs is called **systematization**.

Systematization provides singling out and further unification of not separate objects, as it is observed in classification, but their groups and grades.

So, understanding of objects and phenomena of objective reality formation, scientific notions about them is complicated and multiplanned process. It needs studying facts, their comparison, analysis and synthesis, abstraction, generalization, classification, systematization of their essential signs and characteristics. The general mechanism of operation thinking activity is analytic and synthetic activity of the big hemispheres of the cerebrum.

12.3 Forms of Thinking

The results of thinking process exist in the form of judgements, deductions, conclusions and notions.

Judgement is a form of mental reflection of objective reality, which consists in man's affirmation of presence or lack of signs, properties or relations of certain objects. For example: "The sum of the internal angles of intriangle is equal to 180 degrees"; "This flower is sky-blue"; "This evidence is weighty, etc ".

The typical characteristics of judgement is that it exists, displays and is formed in the sentence. However, judgement and sentence are not identical.

Judgement is the act of thinking, that reflects intercourses, things relations, but the sentence reflects the grammatical connection of words, that displays and fixes this reflection. Each judgement is expressed in the sentence, but not every sentence is judgement.

Sentences, which express the questions, interjections, conjunctions, prepositions are not judgements (eg “Hey!”, “Now then!”, “Who is that?”). So, there is a complicated connection between judgements and sentences.

Each judgement contains a subject and a predicate. **Subject** is object of judgement we are speaking about, and which is reflected in our consciousness. **Predicate** is reflection of those relations, signs, properties, which man affirmed by us. For example: “All metals are expanded while being heated” (“all metals” is the subject, and “are expanded while being heated” is the predicate). While affirming one thing, we object the other. Consequently, using the phrase “Whale is not fish”, we mean, that a whale does not belong to the class of fish, but we do not affirm, that it belongs to other category of living creatures.

Judgement is **true** if it reflects the relation existing in objective reality correctly. Judgement truth is stood the test by practice. Judgements can be **single** (“Kyiv is the capital of Ukraine”), **partial** (“Some metals lighter, than water”), **general** (“All human beings are mortal”). These are **single** judgements. Judgements, that consist of several simple judgements, are called complex (“In isosceles triangle all the sides and angles are identical”). Depending on affirming or contradicting the presence of the certain signs and relations in the objects, they contradistinguish can be **affirmative** or **negative**.

We can clear up the truth of knowledge or judgements by revealing their basis and comparing them with other judgements, ie while reasoning.

Reasoning is a number of interconnected judgements, aimed at clearing up the truth of any view, proving or refusing. The example of reasoning is the proof of theorem. While reasoning we reach from judgements new ones by deduction.

Such form of thinking, in which from one or several judgements a new one is deduced, is called **deduction**.

In deductions new knowledge is obtained through already gained knowledge. Deductions can be inductive, deductive and by analogy.

Inductive deduction is a judgement in which on the basis of concrete aspect partial generalization is made. For example: “Silver, iron, copper are metals; silver, iron, copper expand at heating; hence, metals expand at heating.”

Deductive conclusion is a judgement, in which some new knowledge about partial, concrete are gained on the basis of general knowledge. For example: “All metals expand at heating; silver is metal; so, silver expands at heating.”

Conclusion by analogy is based on similarity of some essential signs of objects and on this base the conclusion about possible likeness of the objects by other signs is made.

Deductions are widely used in scientific and practical activity, particularly in education and upbringing.

Data, received in the process of thinking, are fixed in notions. Notion is a form of thinking, due to which essence of reality objects and phenomena in their essential ties and relations is cognized, their most important signs are generalized.

Essential signs are such signs which belong to objects under any conditions, express their nature, essence, distinguish these objects from other, ie these are properties, without which objects can not exist. Thus, an essential sign of fruit consists in that fact that it contains seeds, which are considered to be the reproduction method (but the form, colour and look of fruit are unimportant signs).

Notions arise on the basis of perceptible experience. It is precondition of content notions formation. Notions reflect the world more deeply, more fully than conceptions.

Notion always exists and appears in the word, through which it is conveyed to other people. With the help of the language the systems of notions are formed and different branches of sciences are based on these systems of notions.

Notion and word are the unity, but not the identity. Word does not form notion, it is only the tool of notion formation. Notion is the thought element and word is the language element. There is no notion without word, but not every word is notion. For example, “It is getting dark”, “So” are the words, but not notions.

Notion is sometimes expressed by several words. For example, the notion “the unity of the organism and environment” is expressed by a word-combination. One and the same notion in the different languages are rendered by not the same words. Each notion is characterized by its scope and nature.

Notion scope is a number of objects reflected in it, but **notion nature** is a totality of essential objects signs reflected in it.

Notions with the greater signs scope are called the notions of one class (eg “furniture”, “plants”) in comparison with the notions of the lesser signs scope (eg “table”, “tree”), which are **specific** ones in this case. This distribution is relative. Notions, having the widest scope, are called **categories** (eg “movements”, “quantity”, “quality”, “space”, “time”).

Notions are subdivided into general and single. Notion which reflect essential signs of single objects are called **single** (eg “country”, “city”, “writer”, “scientist”), and of the whole classes of objects – **general** (“element”, “weapons”).

One can distinguish **concrete** and **abstract** notions. In concrete notion the certain objects, phenomena and relations between them are reflected (eg “furniture”, “plants”, “animals”). In abstract notions essential signs and properties are reflected separately from objects themselves (“weight”, “courage”, “bravery”, “good”, “evil”, etc.). Notions division into abstract and concrete is relative, because abstraction occurs in making each notion.

12.4 Understanding Process

The result of mental activity is understanding of objects and phenomena of objective reality by human. Understanding is complicated analytical and synthetic brain activity, aimed at discovering internal objects essence, realizing ties, relations, connections, which are reflected in it. Depending on the nature of cognitive task and its sense structure understanding can appear in correlation of the new object with a familiar one, that has the similar signs with it, in clearing up the phenomenon cause, determination of outgoing principles and logical bases of fact understanding, in understanding implication of the speech utterance, motives, nature and significance of act etc. The necessary condition of understanding of any facts are sufficient knowledge and human life experience, which are the key components of this process.

As I. Sechenov noticed, “the thought can be learnt or comprehended only by that man, for whom it is a kind of a link of own experience”. Understanding is based on associations, formed in previous experience, and that is why it is a sort of actualization of these associations. The success of understanding depends on their richness and variety. Corresponding associations are the basis for

productive formation of new associations, closing the new ties and adequate reflection of logical, causal or structural essence of comprehension object.

The combination of word with visual images is of vital importance for understanding. Especially in the case when the object of understanding is its functional characteristics. Visual images, as well as practical actions, not only illustrate what it is necessary to comprehend, but they also help to reveal the essence of the object which is comprehended.

The criterion of understanding is a thought formulated in the word, which reflects knowledge of the essential object signs or phenomenon. The ability to characterize the object which is being comprehended using words testifies to correct understanding.

An important role in understanding belongs to mental and practical actions, that are performing in connection with revealing the essence of cognition object. While understanding scientific text one should single out conceptual system, define its logical structure, compile theses and do generalization. While studying the mechanisms and principles of their work skills to analyze and compile them freely become the index of understanding.

The valid index of understanding is the essence of answers to non-standard questions on the basic aspects of learned knowledge, the ability to vary formulation of thoughts, to reproduce a textual base of the plot, to render it in more concise or detailed way. The ability to use principles formulated in the verbal form in practice, and give the original examples that illustrate a phenomenon is considered to be the evidence of understanding.

In the educational process the situations often occur, when the process of knowledge realization is indissolubly connected with certain practical actions according to the instructions or algorithms (for example, while mastering the principles of the mathematical solution, tasks, orthographic rules etc.).

Human thinking that is aimed at understanding of objects and phenomena of the objective world, its conformities to natural laws, requires that in this process consideration and observation of all psychological conditions, which its productivity depends on.

12.5 Tasks Solving Process

Thinking is the process of thought movement from unknown quantity to know one. Thinking appears in the case when man has to cognize something new, unknown and when he begins to analyze, compare and generalize something. Such questions arise in the conditions of the problem-solving situation. A problem-solving situation is characterized by the presence of contradictions between the real and objectively necessary level of knowledge for the successful task solving.

The process of cognitive task solution begins from the formulation of a question to be answered, proceeding from the concrete conditions of the problem-solving situation. The formulation of question is the first stage, most complicated in the tasks solving process. The person's ability to see ambiguity in these or those objects and reality phenomena, put questions, single out the problems to be solved is of vital importance at this stage. This ability, to a considerable extent, depends on previous person's experience, acumen of one's brain, the ability to see unclear point, where everything seems to be clear for other person.

The second stage of mental task solving begins with searching the ways of analysis of problem formulation as a question and hypothesis construction. Putting forward hypotheses gives a person opportunity to predict directions of task solving and possible results. In the case when propounded hypotheses are not confirmed, they are rejected, the task conditions and the task itself are made more precise.

Solution of mental task is the final stage of the process which can take place differently. Man sometimes acts by the method of trial and error, checking up the effectiveness of hypotheses which are put forward. The solution of the task can be based also on the use of known methods, on using analogies under the new conditions of the problem situation. Task solving can become a creative process. In this case it is necessary to overcome sluggishness of thinking and make up a new solving strategy. Construction of a new strategy is always a result of long previous thinking activity, generalization and reconstruction tasks solving experience in this or that particular sphere of human activity. Task solving sometimes can happen suddenly after the previous intensive, but ineffective efforts, as insight. An intuitive, but not up-to-the end realized task solving is typical of this case. In such a way some important discoveries in science and technology have been made by

well-known scientists and inventors. For instance, the Law of Gravitation was discovered by I. Newton after an apple had fallen down onto his head at the moment of concentrating on a problem intensively. That very apple gave a famous scientist the idea of discovery. The similar situation let Archimedes discover Archimedean Principle.

Senses play an important role in stimulation of mental activity in the tasks solving process. A sense of surprise, a sense of inquisitiveness and a sense of the new are of exceptional importance. Senses cause the origin of the idea, task solving course, completion of work and overcoming difficulties that appeared on the way of achieving the result. Task solving process demands great volitional efforts of man. The effectiveness of cognitive activity and common culture of mental activity depends on individual's persistency, will-power and purposefulness. If someone, who is surprised at inventiveness of a man of genius, could observe at the very process of these inventions, this person would begin being astonished not only at inventor's intelligence, but also at their will-power, enthusiasm and persistence.

So, tasks solving process requires mobilization and strain of all the psychic personality forces and concentration of person's cognitive activity.

12.6 Types of Thinking

The object of human mental activity is the cognitive tasks which have various contents basis, which cause different correlation with the object-efficient, perceptive-figurative and conceptual components in the process of their solving. Depending on this fact one can distinguish three basic types of thinking: visual-active, visual-figurative and verbal-logical or abstract.

Visual-active thinking is characterized by immediate task solving involvement into activity itself. Genetically it is the earliest development stage of thinking. It is the very stage which gives the beginning of thinking development of primeval man in the origin process of labour activity, when its mental and practical sides arise in the organic unity, and mental activity is not separated yet from object-practical activity as independent one. From this type thinking development begins in ontogenesis as well. In the elementary form it is typical of children of early age, who, while acting with objects, think and manipulate with them, discover their new essential properties and characteristics.

Visual-active thinking in its developed form is typical of adults as well. Especially it is necessary when the most effective task solving is possible just in the process of practical activity. Visual-active thinking is a characteristic of people whose professions require practical analysis, various combining and construction (eg professions of chess-players, constructors, inventors). Visual-active thinking plays an important role in the case when a productive and economic task solving is connected with application of object-practical procedures.

Visual-figurative thinking is characterized by that fact that in this case the contents of the mental task is figurative material, which manipulating gives man opportunity to analyse, compare or generalize the essential aspects of objects and phenomena. Visual imaginative thinking broadens the personality cognitive possibilities considerably and here there is a possibility to reflect reality more profoundly and variously. In particular, great possibilities of this type of thinking display in the fine arts. The illustration of this thesis is different directions of abstractionism and modernism, where the semantic shade of images meaning is conveyed in adequately constructed symbols by artist.

Scheme and symbolic reflection of reality are also productive in other spheres of human activity, helping to reflect reality with greater exactness and generalization, for example, at constructing of the models of the net activity planning and solving the design and technical tasks, etc. Visual-imaginative thinking is developed in activity, the nature of which demands the usage of images of different generalization measure, schematic objects image and their symbolic designation.

Verbal-logical or abstract thinking is done in the verbal form with the help of notions, which do not have immediate perceptible basis, typical of perception and imagination. The majority of notions, by which scientific, socio-historical and economic categories are expressed, are the products of big abstracting thinking activity, in which their immediate relationship with perceptible reality is not traced. Exactly this way of thinking gives an opportunity to establish common nature conformities to natural laws and society, to solve the mental tasks at the level of highest generalizations, to make scientific theories and hypotheses.

The above mentioned types of thinking display and exist in certain correlation. In the developed forms they can become apparent as people's individual thinking peculiarities, conditioned by the nature of

their activity, professional factors, correlation with the first and second signal systems and also by other reasons.

12.7. Individual Thinking Peculiarities

Mental activity of different people, due to general psychological conformities to natural laws, is characterized **by individual peculiarities simultaneously**. The differences in mental activity are shown in various thinking qualities. Individual thinking differences of people are caused, first of all, by the peculiarities of their life, activity character and education as well. The type of the higher nervous activity, the correlation between the first and second signal system have certain influence on thinking peculiarities. The most essential qualities, in which individual thinking differences display, are its independence, criticism, flexibility, depth, width, consistency and speed.

Thinking independence is characterized by the ability of man to set and solve new tasks, not asking for some help of other people. Independence of thinking is based on consideration of knowledge and experience of other people, but man, to whom this quality is typical of, cognizes reality creatively, finds his own new ways and methods of solving cognitive and other problems. Independence of thinking is closely connected with criticism.

Thinking criticism is shown in the ability of cognitive activity of the subject not to fall under the influence of somebody else's thoughts, to value positive and negative aspects of phenomenon or fact objectively, to find something valuable and false in them. Man with critical intellect evaluates his own thoughts exactly, checks up solutions carefully, taking into his consideration «the pros and cons», showing self-critical attitude towards his own actions. Criticism and independence of thinking, to a big extent, depend on human life experience, riches and depths of one's knowledge.

Thinking flexibility displays in the ability to change one's own actions quickly at activity situation change, freeing oneself from the dependence ways and methods acquired in the previous experience on analogous tasks solving. Thinking flexibility becomes apparent in readiness to switch from one task solving method to another quickly, to change their solving tactics and strategy, to find new non-typical actions methods under the changable conditions.

Thinking depth is shown in the ability to penetrate into the essence of difficult problems, to reveal phenomena grounds not noticeable under the layer of inessential displays, to understand a problem in that case when others do not even notice it, to predict possible consequences of events and processes. Just this trait is typical of personalities of deep intellect, who can notice contradictions of simple, well-known facts and on this basis reveal nature conformities to natural laws and social life.

Thinking width becomes apparent in the ability to cover a wide range of problems, in creative thinking in different spheres of knowledge and practice. Thinking width is an index of personality and erudition versatile mind.

Thinking consistency displays in the ability to keep to logical consistency while expressing judgements and their substantiation. Consistency of thinking is considered to be typical of man, who keeps to a reasoning theme strictly, does not get off the point not «skip» from one thought to another, not change object of thinking. For consistency thinking it is characteristic of observing certain question consideration principles, plan clearness, lack of controversies and logical mistakes in thought argumentations, proof and objectivity in deductions.

Thinking speed is the ability to analyze the complicated situation quickly, to balance correct decision and then make it. Thinking speed depends on knowledge, the level of mental habits formation, experience in corresponding activity and mobility of the nervous processes. One should distinguish thinking speed from haste and fussiness, that are demonstrated by some people, who take decisions without thinking thoroughly, not predicting possible results of insufficient made decisions.

All human qualities of thinking are formed and developed in activity. Interesting and proper organized activity contributes to development of personality thinking qualities in full.

Theme Key Notions

→ **Thinking, analysis, synthesis, comparison, abstraction, generalization, concretization, classification, systematization, judgement, conclusion, notion, task solving, hypothesis, visual-active thinking, visual-figurative thinking, verbal-logical thinking.**

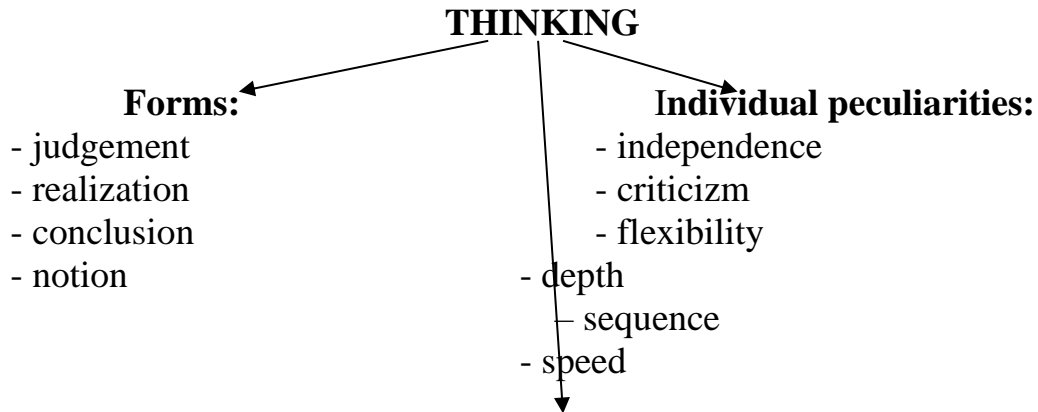
Formalized Structure of the Theme Contents

Cognitive function of thinking:

revealing objects essence not given immediately in the sensations and perceptions of things essence and phenomena of reality.

Cognition mechanism of thinking:

Operations of analysis, synthesis, comparison, abstraction, generalization, classifications and systematizations



Types

<u>by the form</u>	<u>by essence of</u>	<u>by measure of</u>	<u>by measure of innovation</u>
<u>tasks solving</u>	<u>comprehensiveness</u>	<u>and originality</u>	
- visually-active; - visually-figurative; - verbally-logical (national).	-theoretical; -practical.	-discursive; -intuitive.	-reproductive (renewal); -productive (creative).

Questions for Individual Work

1. What are specific peculiarities of thinking as higher form of cognitive activity?
2. What is the main difference between abstract and perceptible cognition of reality?
3. What is the peculiarity of mediated method of reality cognition?
4. What characterizes essential objects signs and phenomena, which are the object of thinking cognition?
5. Characterize the basic mental operations.
6. What is the final product of mental cognition of reality?
7. What the difference between notions and conceptions as forms of reality cognition?

8. In what way are task-solving situation and mental task correlated?
9. Define the main stages of the task-solving process.
10. According to what principles thinking can be divided into the different types?

Alternative Test Tasks for Self-Control

1. While characterizing thinking is it sufficient to point out its following signs: it is a method of mediated and generalized reflection of internal properties of objects and phenomena of reality?
2. Is social thinking nature a necessary condition of its development?
3. Are all the mental operations enumerated: analysis, synthesis, abstraction, generalization, classification, systematization?
4. Is the following definition of mental analysis operation sufficient or not: Analysis is decomposition of the whole into the parts?
5. Is the following definition of mental synthesis operation sufficient or not: synthesis is the unity of the elements into the whole, singled out in the object in the analysis process?
6. Do you agree with statement, that only the notions can be the product of mental activity?
7. Do you agree with statement, that in notions as thinking form all the properties and qualities of objects are reflected in full?
8. Do you think, that the meaning of the notion "task" sometimes can be wider, than of the notion «task solving problem»?
9. Are the following thinking forms named correctly: visual-active, visual-figurative, verbal-logical, conceptual?

Task and Problem-Solving Situations

1. What is the principle difference between human thinking and «machine thinking»? Give arguments which would prove this difference convincingly.
2. What are the differences between human and animal thinking? What does not let thinking of animal be at the human thinking level?
3. What mental qualities do the given description touch upon: «He had fundamental knowledge in the sphere of both social and physical sciences, and could use this knowledge properly. In the investigated phenomena he aimed at discovering their essence, clearing up the basic reasons and relations. Rejecting any commonplaces in analysis of the

new facts he could see them from the new point of view and was not afraid to evaluate his previous views critically. He sometimes made mistakes, but could correct them afterwards».

Used and Suggested Literature

1. Загальна психологія: Підруч. для студентів вищ. навч. закладів/ За загальн. ред. акад. С.Д. Максименка. – К.: Форум, 2002.
2. Максименко С.Д. Общая психология. – М.: Рефл-бук, К.: Ваклер, 2001.
3. Максименко С.Д. Психологія в соціальній та педагогічній практиці: методологія, методи, програми, процедури: Навчальний посібник для вищої школи. – К.: Наукова думка, 1998.
4. Психологія / За ред. Г.С. Костюка. – К.: Рад. школа, 1968.
5. Ушинский К.Д. Собр. соч. – М., 1950. – Т. 8.
6. Sergey Maksymenko. General Psychology. – Vinnytsya, 2005.

Part 13

IMAGINATION

13.1. Concept of Imagination

While reflecting objective reality man does not only perceive everything influences him at the certain moment or imagines what influenced him before. Life demands from man creation of images and such objects, which are not perceived yet by him, conception of the events, witness of which he was not be, prevision consequences of his actions and deeds, programming of his activity etc.

Imagination is a specifically human psychic process that appeared and was formed in labour process. Any labour act contains imagination obligatory. Without imagination of a ready labour result, it is impossible to get down to work. It is just important function of imagination as specifically human form of anticipatory reflection of reality. Before doing something, man imagines the final result of his activity and the ways, with the help of which it will be reached. Before making a certain thing, man creates its image in his mind.

In one's life person creates images of such objects, which did not exist in the nature, don't exist now and which can not be. Such works of human imagination are fantastic fairy-tale images of mermaid and the magic carpet, Horynych the Snake, in which the signs of the different objects are combined. However, how strange the products of human imagination would not be, the material for their construction is always previous person's experience, those impressions, that are kept in his consciousness.

Imagination is a human creation process of objects images, which he has never perceived, on the basis of the previous experience.

Man is impelled to creation of new images by various needs, that cause activity, knowledge development, complication of the social life conditions, by the necessity to predict the future permanently.

Creation of imagination images is always connected with certain cutting off from reality, going out of its bounds. This broadens cognitive human possibilities considerably, providing one's ability to predict and create the new world as the environment of one's being.

Imagination activity is closely connected with thinking. Orienting man in activity process, imagination creates a psychic model of final and intermediate results of labour and by this provides realization of the ideal image into the material or product. The choice of actions method combination of its elements in imagination images are done by logical thinking, execution of different mental actions, thanks to which relationship of human fancy products with reality and their efficacious nature are preserved. The peculiarity of anticipatory reflection of reality in the imagination process displays in the concrete-figurative form in appearance of bright imaginations. In thinking this function is performed by using notions, and as a result, in imagination images mediated and generalized reflection of reality are provided and it makes them realistic and lifelike.

The imagination value is to help man to orient in the task-solving situations, make correct decisions, foresee the result of one's own actions under the conditions, when knowledge is not enough for immediate realization of cognitive need. The effective behaviour becomes possible due to imagination and personality activity in the case of incomplete or doubtful information.

13.2. Connection of Imagination with Objective Reality

In human imagination there is always certain extension out of the boundaries of something immediately given, a certain «flying away» from objective reality. However, how far it would be, it is always connected with objective reality. Imagination is based on reality. Connection with objective reality can be easily comprehended, having analysed various imagination images. While imagining, for example, a future hero of one's literary work, a writer gives him human features and traits, which he perceived in the past, synthesizing these figures and traits into a new image. In such a way man makes use of previous impressions then, when imagines or localities described by other people or events witness of which he was not be.

According to Sechenov's quotation, «imagination images are unknown in the communication world as the seen impressions». Consequently, in his work «Aeneid» I.Kotlyarevsky describes hell with the help of objects from reality (boiling tar, fire, the crowds of people). And a combination of these elements is only unknown here. . Without

necessary perceptible experience, fixed in one's memory, it is impossible to create new images.

The more various is human perception, the richer is one's vital experience, the brighter, fuller and more exact are conceptions created by this person about the objects, which he does not perceive immediately.

The other important imagination aspect of communication with objective reality is that fact that imagination images are not arbitrary combination of separate elements, taken from one's experience. Creating images of new objects from these elements, man takes into his consideration known natural conformities between the objects. So, forecasting events development on the basis of analysis of social situation, a politician takes into his account logical and relation factors that interact, objective tendencies, that appear. Images of heroes created by writer do everything they would do in their real life under such circumstances, which the author created them.

Imagination, which is too far from reality, becomes weak, the products of such fancy turn into empty dreams, project and can do damage.

Converting imagination into reality depends on real needs, possibilities and social society requirements for its works. The presence of the necessary conditions speed up realization of imagination images into the life. The necessity to improve the means of information exchange between countries, continents permanently, that caused Internet appearance of the world computer network can be the vivid example of it. The degree of reality reflection (how true or distorted it is) in human consciousness, convictions, volitional qualities plays an important role in the process of imagination images realization. Imagination is closely connected with practical people's activity and labour. Correlating imagination products with reality, personality has an opportunity to make sure in their reality, in the need to perfect them, to do them more clear, and to enrich them with new features. Practice is always the criterion of correctness and significance of human imagination social products.

Imagination is an original form of reality reflection by man in which active predicting nature of objective world cognition is shown.

13.3. Physiological Basis of Imagination. Imagination and Organic Processes

As well as all other psychic processes, imagination is the function of the cortex of the big hemispheres of the cerebrum. Physiological mechanism of imagination is the formation of new combinations of those nervous connections, which arose in the reflection process of objective reality by human before. For the new image origin it is necessary, that before formed system relations, a structure of which was determined by perceived objects nature, they have to disintegrate and make new connections according to new needs, that are activated in human activity. The richness of imagination images is clearly defined by the originality of new product, combining the features of known objects, and phenomena in their non-typical combinations.

The activity of imagination is closely connected with emotions, inseparable from the creation of new image. This gives the reason to suppose, that mechanisms of the imagination process are situated not only in the cortex of the big hemispheres of the cerebrum, and in the undercortex centres, especially in the hypothalamus system, the damage of which causes changes of regulative function connected with programming of the human behaviour. It has been proved experimentally, that the impulses, which come from the undercortex brain areas, make the activity of the big hemispheres of the cortex more active, contribute to making the plan and actions program, which are of importance in the process of creation of the new objects images.

Creating objects images, which appear immediately, is connected with the emotional personality sphere, one's senses. Human brain can have regulation influence on the peripheral parts of the organism and change their functioning. Still in the ancient times one could notice that some people, mostly those, who suffered from hysteria, after meditations about the Christ torments, according to the evangelic text, had the «crucifix» signs on their palms and feet in the shape of the bloody blots, ulcers. Such imprints are called *stigmas* (from the Greek word *stigma* which means «brand», «scar», «sign»). There are known the cases, when the people, having bright imagination, changed the temperature of the hand or the whole body, imagining a piece of ice or burning hot object (in or on it). Doctor's word, said carelessly, can influence an impressionable patient and cause a real feel of the sickly

state and such person can have corresponding disease symptoms. Illnesses of such origin are called **jatrogeny**. A tactless teacher's word, that traumatizes pupil's psyche, giving the birth to fantastic fears, can cause nervous disorder which is called **didactogenia**.

The specific influence of imaginably objects on the motor personality sphere are **ideomotoric** acts. It has been determined, that when man imagines the movements of some part of his body (of the hand, foot, trunk), but does not do action himself, then in his muscles, which have to effectuate this movement, the weak impulses, analogically to those, which are registered at the real movements execution, are fixed. The effect of «thoughts reading», on the principle of ideomotoric acts decoding is based, when, due to extraordinarily keen sensitivity, some people, while communicating with others, are capable of perceiving the weak signals of one's ideomotoric acts and «to guess», which object and in whom particularly from those, who are present, hid a recipient. The ideomotoric acts as the means of ideal simulation of actions to be carried out, are widely used by sportsmen, dancers and others. The trainers advise their pupils to imagine the exercises to be done from the very beginning up to the end. Such «programming» improves the results of their real execution.

Regulation brain influence on all the organs of the human body is natural phenomenon. Imagination images, that are formed in the process of human activity, can reinforce this influence. In the case of cerebral activity pathology the changes of imagination function are observed. Most often such changes display in hallucinations, when a sick person can see non-existent object. In this case the image, which arises, is so bright, that a person is absolutely sure of its reality. A temporal hallucination state is caused by narcotics. An excessive amount of alcohol can bring on sickly state, namely delirium tremens, when fantastic delirium begins, that is against logic of life.

13.4 Process of Imagination Images Creation.

The creation of the images of new objects are conditioned by human needs of life and activity. Depending on the tasks to be solved by human, the certain traces of previous impressions becomes active and new combinations of associative connections appear. This process can be of different complication depending on the aim, nature and human previous experience.

The most elementary synthesis form of new images is **agglutination** (from Latin *aglutinare* which means «joining together as with glue»). It is image creation by dint of combination of qualities, properties or parts, taken from the different objects. For example, such are the fairy-tale mermaid images of half woman, half fish; of centaur – half man, half horse; in technical creation – properties, connection of trolleybus to tram and car, the image of tank–amphibian combines the properties of both the tank and boat.

The way of new images creation is **analogy**. The sense of this method is the fact that a new image looks like the real existing object, but a quite new model of phenomenon or fact is projected in it. On analogy principle a new industry of engineering business – **bionics** is based. Bionics singles out some properties of living organisms, which become fundamental in construction of new technical systems. In such a way a lot of various devices have been created – radar, “electronic eye”, etc.

New images can be created with the help of emphasis. This method consists in intentional stressing of the certain signs in the object, which become to be dominant among the others. While painting a friendly cartoon, caricature, the artist finds in human character or appearance something unique, intrinsic only to him, and emphasizes it using the means of artistic expression.

One can create new images with the help of **hyperbolization** (or **litotes**) of object descriptions. This method is widely used in the fairy-tales, folk art, when the main heroes are endowed with supernatural strength (eg Mykyta Kozhumjaka, Kotyhoroshko) and do exploits.

The most complicated method of imagination images creation method is the creation of typical images. This method requires long creative activity. Artist creates sketches, writer – the variants of work. For instance, while drawing the picture “The Christ’s Revelation to people” artist O. Ivanov made about 200 sketches.

Imagination, which is typical of artistic creation, can be illustrated by K. Paustovsky’s utterance: «Each minute, each word and look given in passing, each deep or witty thought, each imperceptible motion of the human heart, as well as the flying poplar seeds or the star fire reflected on the night water, all these are the crumbs of golden dust. We, literature people, manage to get them, these millions of crumbs during decades, agglomerate imperceptibly for ourselves, convert them into alloy and,

then, from this alloy we create our «Golden rose» – the narration, novel or poem» [10].

The creative process is connected with the origin of a lot of **associations**. Their actualization is subordinated to the aim, needs and motives, which are to be dominant in creation acts.

Practical activity plays a big role in creation of imagination images. While created image exists only in mind, it is not always clear to the end. While embodying this image in a drawing or a model, man checks up its reality.

Interaction of two signal systems is fundamental in creation of imagination images. Correlation between senses and speech, image and word gets different nature in different types of imagination, depending on the concrete activity essence, into which creation of images is included.

13.5. Imagination Types

Imagination activity can be characterized depending on the participation of a special volitional regulation in this act on human activity nature and essence of created images.

Depending on will participation in activity, imagination is subdivided into spontaneous and arbitrary.

Imagination is **spontaneous** when creation of new images does not directed by the special aim to imagine the certain objects or events. The need in spontaneous images creation is permanently executed by different types of activity into which a personality is involved. In the process of communication the interlocutors imagine the situations, events, that are the subject of their discussion. While reading fiction or historical literature, man becomes an observer of the real pictures, that come into being in his head under the influence of everything which has been read unvoluntarily. Spontaneous origin of notions is closely connected with human senses. Sense is a powerful generator of bright imagination images in those cases, when man is anxious about vagueness of the expected events or, on the contrary, when he experiences an emotional rise before his participation in the solemn events which are of vital importance for him.

While experiencing fear and being in the state of anxiety for relatives and friends, in his mind man creates images of dangerous situations. While preparing for a pleasant event, man imagines the goodwill atmosphere and respect from the colleagues, those who are

present. An example of spontaneous imagination images origin is a dream. In the state of dreaming, when there is no conscious control over psychic activity the traces of various impressions, kept in the brain, are released and can form unnatural and vague combinations.

An imagination process can be arbitrary, when it is directed by special aim to create an image of the certain object, possible situation, to imagine or foresee the scenario of events development. Realization of **arbitrary imagination** in the process of cognition is caused by the need of conscious image construction regulation according to the task and nature of executed activity. Arbitrary images creation is observed mainly in human creative activity.

Depending on human activity nature one's imagination is subdivided into **creative** and **reproductive**.

Imagination, which is included into creative activity and helps man to create new original images, is called **creative**.

Imagination, which is included into the learning process of something, which is already created and described by others, is called **reproductive**.

For instance, the constructor-inventor, who creates a new engine, has creative imagination, and the engineer, who creates an image of this machinery, by verbal description or drawing has reproductive imagination.

Creative imagination is activated in the cases where man opens something new, finds the new work methods, creates original new material and spiritual products valuable for society.

The products of creative imagination, their richness and social meaningfulness depend on knowledge and personality life experience immediately, one's attitude towards activity, its social position etc. Language, which is realization method of creative project and the instrument of analytical and synthetic activity, plays an important role in creative imagination.

Reproductive imagination is the process of images creation of new objects on the basis of their verbal description or graphic image by human. The need in images reproduction of objective reality is permanent and of vital importance in human life and activity as conscious social being. Reproductive imagination plays an extraordinary important role in the human communication process, which, to a great extent, caused its development. The language phenomena description always demands for man to create corresponding images. Reproductive imagination is necessary while

reading fiction, working with text-books (eg a geography text-book, a biology text-book, an anatomy text-book, etc). Images of objects are formed also on the basis of their graphic description, for example, in engineering business, while using schemes and maps.

Creative and reproductive imaginations are closely connected with each other, interact and transform one into another permanently. This connection displays, on the one hand, when creative imagination is based on reproductive one, and contains its elements. On the other hand, the complicated forms of reproductive imagination contain the elements of creative imagination. For example, in actor's activity the embodiments of the stage image are activity result of creative and reproductive imagination simultaneously.

Depending on activity essence and human work nature, imagination is subdivided into artistic, technical, scientific and other ones.

Artistic imagination has mainly perceptible (visual, auditory, tactile, etc.) images, which are extremely bright and detailed. For instance, while I. Repin, was painting the picture «Zaporozhian cossacks write the letter to the Turkish sultan», he wrote, that he was dizzy from their humour and hubbub. G.Flober said, that he sharply felt the arsenic taste in his mouth when he described Madam Bovari's suicide stage. It seems to an artist and a writer that they perceive everything which they portray in their works due to the brightness of sense images.

It is typical of technical imagination to create images of spatial attitudes in the shape of the geometrical figures and construction, their light dissociation and union into the new combinations, their imaginary transference into different situations. Images of technical imagination are most often combined in drawings, schemes, on the basis of which new machines and objects are created then.

Scientific imagination displays in hypotheses construction, making the experiments, in generalizations, made while creating notions. Fancy plays an important role in planning scientific research, construction of experimental situation, foreseeing the course of an experiment. While constructing the scientific system, imagination is necessary to add the absent, not yet found links in the chain of facts.

Fancy is of great significance for scientist's fruitful creative activity. Without any fancy his work can turn into the activity of collecting scientific facts, accumulation of his and someone else's thoughts, but not

into the real step towards new inventions, ideas, creation of something new in science.

A special imagination form is dream. **Dream** is a creation process of images of the desired future by human. Dream is the necessary condition of creative projects realization, when imagination images can not be realized immediately because of objective or subjective reasons. In this situation a dream appears as a real motive, as activity motive, due to which the completion of started business becomes possible. Without a dream, wrote D.Pysarev, «it would be impossible to comprehend, what motive force makes man do huge and exhausting amount of work in the sphere of art, science and practical life.

Dream is an element of the scientific foresight, prognosis and planning of activity. Its function displays in creative artistic activity and in the development of society convincingly. The bright illustration of this fact is Zh. Vern's works, in which he foresaw invention of technical thought in the future – of submarine and helicopter.

Dreams can be real, efficacious and unreal, fruitless. Dream effectiveness is the necessary condition of creative human projects realization, aimed at real reality transformation. Such dreams, to a certain extent, are human motive actions force and acts. They give man greater purposefulness in the life, help to overcome difficulties and resist negative influences.

Dreams can be empty, and as we mentioned above, fruitless. In this case they disorient man, deprive him of the vision of real vital perspectives, let him find spectral satisfaction of his own dreams likes, and make him incapable of resisting problems of the real being.

Only a creative active dream, which enriches human life, makes it bright and interesting, can influence man positively.

13.6. Imagination and Personality

Imagination activity depends on general personality orientation and psychic life in general. A special role in creation of imagination images belongs to one's interests, needs and personality world view, that form his spiritual world. The formation of a number of moral and psychological personality qualities such as humanity, sensitivity, etc. is connected with imagination activity. It is clear, that the person, who, having life experience and knowing character traits of other person, is

able to imagine his (her) state of mind and show consideration for him (her) at the certain moment.

The typological peculiarities of higher nervous activity display in the force and vividness of imagination objects. Imagination is one of the indexes, according to which I. Pavlov divided all the people into **artistic** and **mental** types. Artist deals with images of different types (visual, auditory etc.), and this fact is evidence of the dominating role of the first alarm system, the figurative reflection in the world in his activity. So, imagination not only influences the course of psychic human life, but causes formation of important personal qualities as well.

Theme Key Notions

→ **Imagination, arbitrary imagination, spontaneous imagination, forward imagination, reflection, reproductive imagination, creative imagination, dream, dissociation, agglutination, emphasis, hyperbolization, schematization, typification.**

Formalized Structure of the Theme Contents

Cognitive imagination function:

- creation of new objects images;
- forestalling reality reflection.

Psychological imagination mechanism:

dissociation of the vital impressions and union of singled out elements into new combinations.

IMAGINATION

Types:

- reproductive (spontaneous, arbitrary);
- creative (arbitrary);
- dream (arbitrary).

Images creation methods

- agglutination;
- schematization;
- hyperbolization;
- emphasis;
- typification.

Questions for Individual Work

1. What are the specific peculiarities of reality reflection in imagination processes?
2. What is activity of human imagination conditioned by?

3. What does richness of imagination images created by human depend on?

4. What is the main difference between images of reproductive and productive imagination?

5. What are the peculiarities of dream as a variety of creative imagination?

6. What is connection between perceptible cognition and thinking processes with imagination shown in?

7. What is the mechanism of imagination images influence on psychological processes?

8. In what way is imagination connected with emotional and volitional personality sphere?

Alternative test tasks for self-Control

1. Do you agree with the statement, that any practical human activity is impossible without imagination?

2. Is imagination always included in the process of mental activity?

3. Is imagination typical of animal?

4. What is the main difference between images of creative imagination and hallucinations?

5. Can imagination vividness influence human psychic life negatively?

6. Do you agree that dream is imagination images creation in realization of which a person is certain?

7. Can child's imagination be richer, than imagination of adult?

Task and Problem-Solving Situations

1. What is the difference between imagination and memory images? According to what indications can one determine it?

2. Define which imagination images creation receptions are used in the following enumeration: by an inventor while constructing of a dirigible, hydroaeroplanes; by a writer – while creating a literary character; by an artist-caricaturist while drawing a friendly cartoon.

3. Explain why are some people, who are not good at medicine, having read a description of this or that disease, prone to imagine, that they fell ill namely with this disease and they have the feeling of having its symptoms.

Used and Suggested Literature

1. Загальна психологія: Підруч. для студентів вищ. навч. закладів / За загальн. ред. акад. С.Д. Максименка. – К.: Форум, 2002.
2. Максименко С.Д. Общая психология. – М.: Рефл-бук, К.: Ваклер, 2001.
3. Максименко С.Д. Психология в соціальной та педагогичній практиці: методологія, методи, програми, процедури: Навчальний посібник для вищої школи. – К.: Наукова думка, 1998.
4. Натадзе Р.Г. Воображение как фактор поведения. – Тбилиси: Мецниереба, 1972.
5. Психологія / За ред. Г.С. Костюка. – К.: Рад. школа, 1968.
6. Розет И.М. Психология фантазии. – Минск, 1977.
7. Sergey Maksymenko. General Psychology. – Vinnytsya, 2005.

Part 14

MEMORY

14.1. Memory Concept

Impressions, which are obtained by man while reflecting objective reality through his sense-organs or in the process of thinking, do not disappear without leaving trace. They are fixed in the brain and kept in it in the form of images, conceptions about objects and phenomena, that were perceived before. When it is necessary, acquired experience can be reproduced and used in activity.

Memory is fixing, conservation and subsequent reproduction of the previous experience by human being.

Memory is the basis of human psychic life. With the help of memory man can get knowledge necessary for activity, abilities and skills. Memory is an indispensable condition of human psychic development. New developments in one's psyche are always based on previous achievements, fixed in memory. Due to memory the integrity of «I» personality is preserved, and the unity of his past and present is realized. Without a store of memory images mental activity, creation process of images, orientation in the nearby environment in general would be impossible at all. I. Sechenov proved, that a person who has no memory would be constantly in the state of a new-born child, being not capable to learn or master anything.

In memory one can distinguish such main processes as: **remembrance, conservation, retrieval and forgetting.**

Depending on the material to be memorized one can distinguish **imagery, verbal-logical, emotional and motor** types of memory.

According to the duration process of preserving information which is to be memorized, memory is divided into short-term, long-term and sensory (active).

14.2. Memory Theories

The first attempts to give a scientific explanation to memory phenomenon at the psychological level were done by **associative school** of psychology. The notion of **association**, that means a link, connection is the central concept in associative psychology. Association

is an obligatory principle of all psychic formations. The mechanism of association consists in establishing connection between impressions arising in consciousness at once. Depending on the necessary conditions for their formation, associations are subdivided into three types: according to contiguity, similarity and contrast.

Contiguity association is the reflection of relations between the objects and phenomena in the human brain, in sequence (**contiguity in time**) or exist together in space (**contiguity in space**). **Cogniguity associations** arise while mentioning the events, eye-witness of which the person was, and while learning educational material, etc.

Similarity association is observed while reflecting the relations between the objects in the brain, similar between each other, to some extent, (false perception of unknown person as familiar one).

Contrast association is created while reflecting objects and phenomena of objective reality in the human brain, which are connected with each other by contrary signs (eg high – low, fast – slow, happy – sad, etc.).

The special type of associations, born by needs of cognitive activity and human life are **cause and effect associations**, which reflect not only irritants coincidence in time and space, their similarity and differences, but also causal dependences between them.

Cause and effect associations are the basis for thinking and logical constructions.

Explaining the mechanism of the different associations types, associationism as the school did not explain the determiners of this process and what factors cause its attribute.

Associative theory was absolutely criticized by Gestalt psychology. The central notion of the new theory was «**Gestalt**» – the image as integral organization of structure, which does not come to the sum of its separate parts. That's why the formation of the connections is based on material organization, which determines analogic traces structure in the brain with the help of form similarity principle.

Physiological theory of memory is closely connected with the important tenets of I. Pavlov's theory regulations about the higher nervous activity.

According to I. Pavlov's theory, the material basis of memory is the plasticity of the cortex the big hemispheres of the cerebrum, its ability to form new temporal nervous connections, conditioned reflexes.

Formation, strengthening and extinction of the temporal nervous connections are the physiological memory basis. Temporal nervous connections, that are formed as a result of irritant action, so-called «trace», are remembered and kept rather than image.

Physiological memory basis is closely connected with conformities to natural laws of the higher nervous activity. The theory of formation of the temporal nervous connections is the memorizing theory at the physiological level. **Conditioned reflex** is a formation act between a new and a nervous consolidated essence which is a basis of memorizing act. The notion of reinforcement acquires significance in order to understand cause memory stipulation. **Reinforcement** – is achievement of immediate aim, of individual action or stimulus which encourages action. It is the coincidence of newly formed connection with achievement of the aim of action and if only the connection coincided with the achievement of the aim, it has remained and fixed. (I. Pavlov).

Physiological understanding of stimulus is correlated with psychological notion of action aim. It is the point of merging of physiological and psychological analysis of memory mechanisms. The memorizing of that, that «took place in the past», would have no any sense if it hadn't been used for that, which «will be in the future».

In the explanation of memory mechanisms there are still so-called physical, biochemical and chemical theories of memory.

According to **physical memory theory** any passing of excitation or through the definite group of the cells (neurons) leave a physical trace after itself, which cause mechanical and electronic changes in synapses (the place of linking of the nervous cells). During visual perception of object as though the eye inspection on the contour takes place, that is accompanied by the impulse motion on the corresponding group of the nervous cells, which, as though a perceived object in the form of spatial and temporary nervous structure. This theory is also called **the theory of neuron models**. The process of formation and activation of neuron of the models is the principle one in connection with the processes of memorizing, retrieval and preservation.

It has been determined, that axons, which branch off from the cells, combine with the dendrites of other cell or go back to the body of its cell. As a result of such structure possibility of circulation reverberated excitation circles of different complication appears. In such a way self-charging of cell appears and excitation does not go beyond the bounds

of definite system. This is so-called neuro-physiological level of memory mechanisms study.

The biochemical memory theory is expressed by hypothesis about two-grated nature of memorizing process. As a matter of fact, at the first stage, at once after the influence of irritant, in the brain a momentary electro-chemical reaction occurs and it causes the reverse physiological processes in the cell. The second stage appears on the basis of the first one – this is the proper biochemical reaction, which is connected with the formation of proteins. The first stage continue for seconds (or minutes) and it is considered to be the mechanism of short-term memory. The second stage, which is characterized by the irreversible chemical changes in the cells, is considered to be the mechanism of long-term memory.

The adherents of **the chemical memory theory** find specific changes, which take place in the nervous cells under the influence of the external irritants, are the mechanisms of fixing, preservation and representation of traces of obtained impressions.

14.3. Memory Types

According to the material to be memorized and reproduced one can distinguish four types of memory : **figurative, verbal-logical, motor and emotional ones.**

Figurative memory displays while memorizing images, notions of concrete objects, phenomena, their properties and characteristics, connections and relations between them.

Depending on the analysers, with the help of which objects are perceived while memorizing them, figurative memory is divided into **visual, auditory, tactile, olfactory** etc.

The physiological basis of figurative memory is temporal nervous connections of the first signal system nature. However, the second signal system also takes part in it. Language appears as a means of realization human perceptible experience.

Verbal-logical memory covers thoughts, notions, judgments, deductions, which reflect objects and phenomena in their essential connections, relations and their common properties. Thoughts do not exist without language, that is why process of their memorizing is called verbal-logical. This type of memory is based on the first and second signal systems common activity.

Verbal-logical memory is a specifically human, unlike figurative, motor and emotional memory, that are typical of animals as well.

Motor memory means memorizing and retrieval of motions by man himself. It displays in different types of playing, working and producing activity. It is the basis of different skills and habits formation, mastering verbal and writing language.

Emotional memory is memorizing and retrieval of one's emotions and feelings by man himself. Not only emotions are memorized by themselves, but also objects and phenomena, that cause them. For example, the experience of nostalgia feeling while recollecting about the country, in which man grew up, but left this country under the certain conditions.

Depending on the peculiarities of memory processes, memory is subdivided into spontaneous and arbitrary. We speak about **spontaneous memory** when man memorizes something and reproduces it without any special aim of memorizing or reproducing something. In the cases when we have the aim of memorizing or recollecting, we something speak about **arbitrary memory**.

Spontaneous and arbitrary types of memory are the stages of human development in ontogenesis. Memory is also subdivided into short-term, long-term and sensory (active).

Short-term memory is characterized by fast material memorizing, its retrieval and not very long period of preservation. As a rule, it serves for vital activity needs, and it is limited in capacity.

Long-term memory appears in the process of acquiring knowledge, skills and habits, with the purpose of their long preservation and subsequent use in human activity.

Active memory provides memorizing and retrieval of active information necessary for using in present-day activity (for example, keeping intermediate results one's in mind while doing complicated calculating actions). Having performed its function, this information can forget itself.

14.4. Memorizing and Its Types

Memorizing is one of the main memory processes. Its basis is the formation and strengthening of the temporal nervous connections. The more complicated is material, the more complicated temporal connections are, which form the basis of memorizing.

Memorizing, as well as other psychic processes, can be spontaneous and arbitrary.

Spontaneous memorizing is carried out without any specially set aim to memorize. Vividness, emotional objects colouring on the spontaneous influence memorizing. Everything, which emotionally strongly influences man, is remained by him without any intention to remember. The availability of interest contribute to spontaneous memorizing. Everything, which is interesting, is remained in mind considerably easier, and kept in consciousness for a more considerable period of time than uninteresting one. Spontaneous forms of memorizing take place, when any phenomenon plays a contrasting role on the general background. The objects, that are like objects known long before, are memorized spontaneously easier. Spontaneous memorizing plays a great role in human life. It contributes to enriching individual's vital experience. Spontaneous memorizing plays a big role in educational activity as well.

Arbitrary memorizing differs from spontaneous by the level of volitional effort, by the presence of task motive. It has purposeful nature, special methods and memorizing receptions are used in it.

The conditions of successful memorizing are the following:

- reiterated well-organized and systematic repetition, but not mechanical one, which is determined by the amount of reiterations only;
- division of the material into the parts, selecting sense units in it;
- understanding, and so on.

Depending on the measure of memorized material of understanding, arbitrary memorizing can be mechanical and sense (logical).

Mechanical memorizing is such memorizing, which is done without any understanding of the essence. It leads to formal knowledge learning.

Sense (logical) memorizing is based on understanding material in the process of action with it, because only in the case of working with any material, we can memorize it.

The conditions of successful arbitrary memorizing are effective knowledge, learning nature, the interest in material, the purpose of memorizing, etc.

14.5. Retrieval and Its Types

Retrieval is one of the basic memory processes. It is the index of memorizing strength and, at the same time, the consequence of these processes.

Retrieval is an activation of the previously formed temporal nervous connections in the cortex of the big hemispheres of the cerebrum.

The simplest form of retrieval is **recognition**. Recognition is reproduction, appeared during the repeated perception of objects. Recognition can be complete and incomplete.

In the case of **complete recognition** recurring perceived object is identified at once with the object known before, the place and other details of the previous acquaintance with it are reproduced. The complete recognition takes place, for example, while meeting an acquaintance or while going along the familiar streets.

Incomplete recognition is characterized by vagueness, difficulties of perceived object correlating, with that of previous experience. For instance, having heard a melody, man can experience the sense of something familiar, however, he will be not capable of identifying it with a concrete piece of music.

The more complicated form of retrieval is **recollection**. The peculiarity of recollection consists in that fact that it takes place without recurring perception of retrieval material. Recollection can be **arbitrary**, when it is caused by the vital need to reproduce the necessary information. For example, the recollection of the rule of word spelling or word order in the sentence, to answer the questions. Recollection can be **spontaneous**, when images or information recur in one's mind without any realized motives. These are the phenomena of *perceverance*. *Perceverance* means notions of obsessional nature. Vivid *perceverances* appear after frequent perception of definite objects or phenomena or when a strong emotional influence on person takes place.

The phenomenon of reminiscence belongs to spontaneous retrieval, or recalling of past events and experiences, which were impossible to be remembered after their memorizing immediately. In I. Pavlov's opinion, the basic principle of reminiscence is to relieve tiredness of the nervous cells, which comes after carrying out complicated mnemonic task. After

some time this tiredness disappears, and effectiveness of retrieval increases.

A special form of arbitrary retrieval of memorized material is *recognition*. The need for recollection arises, when at the necessary moment it is impossible to remember the essential facts. In this situation man makes some efforts to overcome objective and subjective difficulties, connected with impossibility to remember, strains his will, starts searching the way of activation of the previous impressions, turns to different mnemonic actions. Recollection can be a complicated mental activity, which consists of phases retrieval of all the circumstances and conditions, under which the memorizing process of an object or phenomenon take place. The effectiveness of the usage of gained knowledge, the development of memory as psychic process, in general, depend on the ability to remember. K. Ushynsky found one of the main reason of “bad memory” to be laziness to remember.

One of the types of arbitrary retrieval is recollection. **Recollections** retrieval of images of the past, which are localized in time and space. In the recollections the human life stages are correlated by the person with social events, with the important dates in personal life. The specific form of this recollection of the object is a life way of a concrete person in the context of historical conditions of the definite period, which a person took part immediately in. It causes recollections satisfaction by various emotions, which enrich and deepen recollection essence.

14.6. Forgetting and Its Reasons

Everything, which is memorized by us, is forgotten gradually. **Forgetting** is the process opposite to the process of memorizing. Forgetting displays when memories simply fade away or decay with the passage of time. The clearness of the remembered material is lost, its scope is diminished, mistakes appears in retrieval, it becomes impossible and, finally, recognition becomes impossible.

Forgetting is a function of time. The basis of forgetting is fading away of temporal nervous connections, when they are not renewed through periodic use. If gained knowledge is not used for a long period of time, then it forgotten gradually. The second reason of forgetting is insufficient strength of memorizing. To prevent forgetting one should learn the material properly.

The process of forgetting depends also on activity peculiarities, its organization and conditions, under which it takes place. The reason of forgetting can be negative **induction**, caused by material essence. Complicated material of the previous lesson makes the formation of the new temporal nervous connections more difficult to function, reduces memorizing effectiveness.

The negative influence of early, ie earlier memorized, material on studying the new one is characterized as **proactive interference** (that acts in advance).

From the psychological point of view it is not expedient to study physics or chemistry after mathematics. Negative influence of the following activity on connections, formed on the previous activity is called **retroactive hindering**.

The temporal reason of retrieval difficulties cause can be a strong impulse to remember which induces hindering. For instance, a student's state while taking an exam, when he tries to recollect the answers to the questions in his card at once and can not do it because of being nervous. Hindering disappears when our attention is paid to other objects.

Forgetting is a gradual process. It is shown in loosening and damaging the previously formed conditional connections. The less they are renewed, the quicker they fading away and cause forgetting. Memory research has shown (P.Zinchenko, A. Smirnov and others), that information of secondary importance is faded away quicker. The information of the main sense of remembered material is kept for a more long period of time. The highest tempos of forgetting are observed at once after learning of the material.

For the long keeping of information in memory it is important to provide a strong memorizing and fixing by repetition during the first days it has been obtained. The important condition of the productive memorizing is awareness and understanding of the memorizing subject.

14.7. Individual Memory Peculiarities

Each personality has the **individual memory** differences (peculiarities), which display in the different spheres of one's mnemonic activity.

In the processes of memory the individual distinctions display in the speed, exactness, memorizing strength and readiness for retrieval.

Speed of memorizing is determined by the amount of repetitions, necessary for person to memorize a new material.

Exactness of memorizing is characterized by the accordance of the represented material with that, which has been memorized, and by the amount of the mistakes done.

Strength of memorizing displays in the safety duration of material learned by heart or in slowness of its forgetting

Readiness for retrieval is characterized by that fact how man can remember the necessary information at the essential moment quickly and easilys.

The individual distinctions of memory can be caused by the types of the higher nervous activity. The speed of formation of the temporal nervous connections is connected with the force of forgetting processes and hindering and with memorizing exactness and memorizing strength. In the case of strong, but at the same time, slow inhibition the differentiation of impressions takes place slowly, that can influence memorizing exactness. If man has formed rational methods of mnemonic activity, and developed corresponding habits: accuracy, punctually, responsibility, then negative displays, caused by typical peculiarities of nervous system, can be corrected. The individual memory distinctions display also in the kind of material to be memorized better: imaginative, verbal or mixed in equal measure (a combining both of them).

In this connection in psychology the following memory types are distinguished: **visual-imaginative**, **verbal-abstract**, **mixed**, or **intermediate**. These types are conditioned partially by correlation with the first and second signal systems of human higher nervous activity, but mainly by life conditions and demands of professional activity.

Thus, visual-imaginative memory type is primarily typical of artists, writers, musicians; verbal-abstract memory type – of scientists, philosophers. A mixed memory type is characteristic of people, in whose activity noticeable advantages of visual-imaginative or verbal-abstract type are not observed. It is necessary to take into one's account the individual memory differences in educational activity, in order to use potential possibilities of each pupil most productively and develop his memory harmoniously .

Theme Key Notions

➔ **Memory, association, memorizing, retrieval, recognition, remembrance, perseverance, reminiscence, imaginative memory, verbal-logical memory, emotional memory, motor memory, sensory (active) memory, short-term memory, long-term memory.**

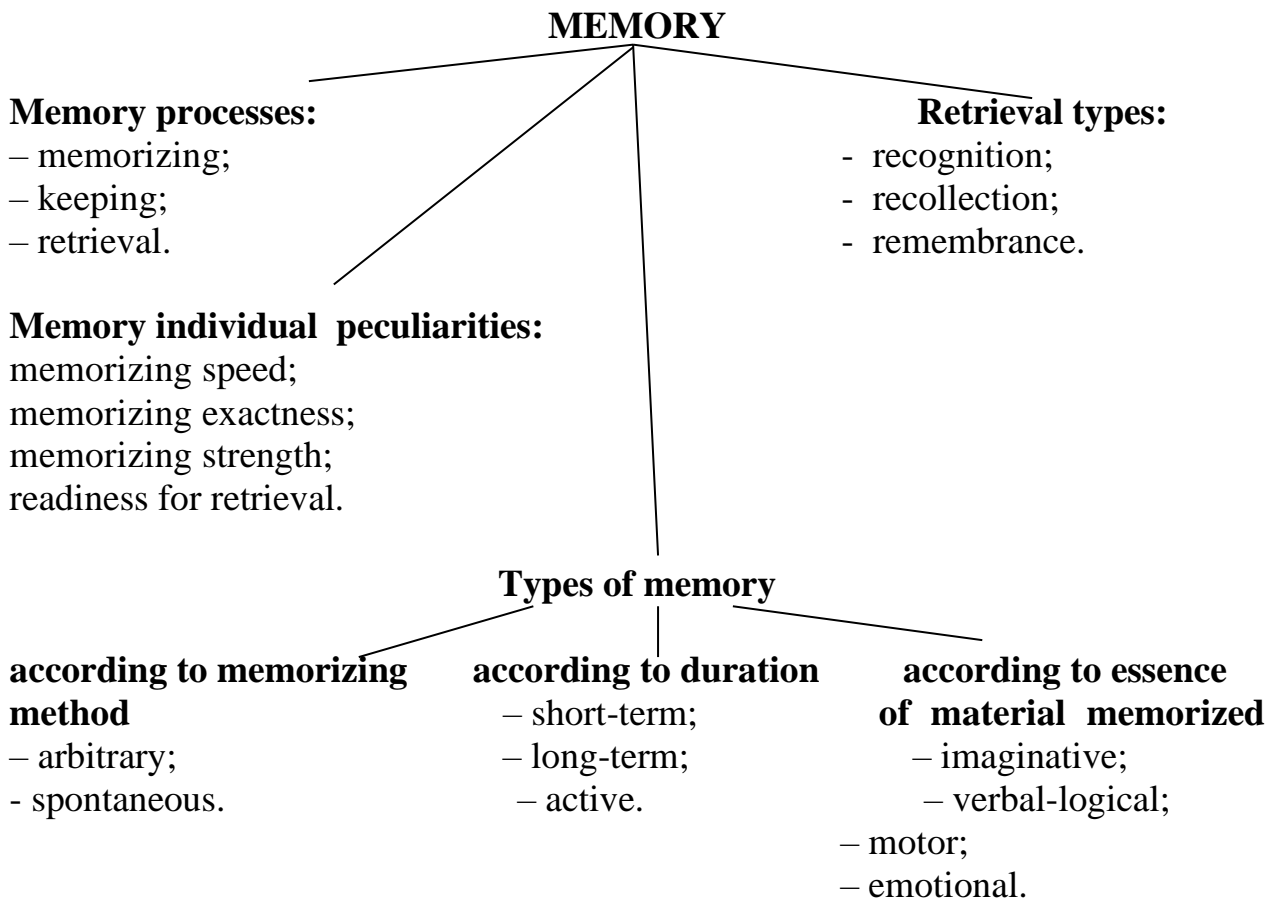
Formalized Structure of the Theme Contents

Memory cognitive function:

life experience accumulation

Memory physiological mechanism:

ability of the nervous system to fix and preserve impression.



Questions for Individual Work

1. Characterize the major peculiarities of memory as cognitive process.
2. What is the role of memory in person's psychic life?
3. Associations Nature and their significance in the memory processes.

4. According to which principles is memory subdivided into the types?
5. What is the difference between short-term and sensory (active) memory?
6. Name the basic conditions of productive memorizing.
7. How can we explain the reminiscence phenomenon?
8. What is the principal difference between memory images, notions and perception images?
9. What are memory individual peculiarities shown in?

Alternative Test Tasks for Self-Control

1. Is memory psychic process, which belongs to abstract cognition?
2. Can one assert that memory function covers only fixation and retrieval processes of obtained impressions?
3. Are the following memory distribution principles determined in a proper way: depending on will participation in the processes memorizing; depending on duration of keeping information in memory; depending on memorized material essence?
4. Are all the memory types enumerated: arbitrary, spontaneous, imaginative, motor, verbal-logical, emotional, long-term, short-term?
5. If there any principal difference between the mechanisms of spontaneous retrieval and perserverance?
6. Are all the conditions of productive memorizing enumerated: memorizing aim, positive attitude towards memorized material, comprehension of information, revision?
7. Do all the enumerated memory peculiarities characterize its individual distinctions: memorizing speed, readiness for retrieval, keeping duration, perserverance?

Task and Problem-Solving Situations

1. It is known from the experience, that, while being nervous a person can forget information memorized before. Which physiological explanation can be given to this phenomenon?
2. Many people make short notes for better memorizing. Why does this method contribute to better material memorizing?
3. During one experiment the people were offered to solve five tasks. In other research in 15 minutes they were to compose five analogous tasks. After that they were asked to reproduce the numbers

from all the ten tasks. In which case did people memorize figures better and why?

5. Continued activity on memorizing the theory sometimes is ineffective. How can it be explained, that, firstly, the material is accumulated badly in memory, and secondly, an illusion of its memorizing is created ?

6. How can K.Ushynsky's statement that «the bad memory is the result of laziness» be substantiated from the psychological and physiological points of view?

Used and Suggested Literature

1. Загальна психологія: Підруч. для студентів вищ. навч. закладів/ За загальн. ред. акад. С.Д. Максименка. – К.: Форум, 2002.

2. Максименко С.Д. Общая психология. – М.: Рефл-бук, К.: Ваклер, 2001.

3. Максименко С.Д. Психологія в соціальній та педагогічній практиці: методологія, методи, програми, процедури: Навчальний посібник для вищої школи. – К.: Наукова думка, 1998.

4. Максименко С.Д., Носенко Е.Л. Експериментальна психологія (дидактичний тезаурус): Навч. посіб. – К.: МАУП, 2002.

5. Общая психология / Под ред. А. В. Петровского. – М.: Просвещение, 1977.

6. Психологія /За ред. Г. С. Костюка. – К.: Рад. школа, 1968.

7. Sergey Maksymenko. General Psychology. – Vinnytsya, 2005.

CHAPTER V EMOTIONAL AND VOLITIONAL PROCESSES

Part 15 EMOTIONS AND SENSES

15.1. Concept of Emotions and Senses

Human activity and conduct always evoke **positive** or **negative** attitude towards person. Attitude towards reality is reflected in the brain, and is experienced as satisfaction or dissatisfaction, joy, grief, anger, shame. Such experiences are called **emotions** and **senses**.

Emotions and senses carry out signal and regulation functions, provoke human being to gaining knowledge, work, regulate actions or slow them down.

Human emotions and senses express the spiritual demands and aspirations, human attitude to reality. K. Ushynsky wrote, that «neither words nor thoughts, not even our actions do not express us ourselves so brightly and our attitude towards the world, as our sensation» [17].

Emotions and senses are interconnected organically, but they are not identical according to their nature and experience form.

Emotion – is a general active experience form of organism vital functionings. Emotions can be simple and complicated. Experiences of satisfaction from food, cheerfulness, tiredness, pain are simple emotions. They are typical of people and animals. Simple emotions in human life turned into complicated emotions and senses. A typical sign of complicated emotions is that fact they are the result of realizing of object caused it, comprehension of their vital meaning (for example, feeling of satisfaction while perceiving music, landscape, etc.).

Senses – are specific human attitude generalized experiences towards human needs, satisfaction or dissatisfaction of which evokes positive or negative emotions: joy, love, pride or grief, anger, shame, etc.

Emotions and senses are characterized by certain quality and polarity, activity and intensity.

Human attitude towards work, other people and to oneself displays in feelings. One can distinguish one emotions and feelings from others by experiences quality (for example, joy from anger, love from hatred).

Polarity is typical of emotions and senses. It displays in that fact that each emotion, each sense can display entirely different under the circumstances: «happiness – grief», «love – hatred», «sympathy – antipathy», «satisfaction – dissatisfaction». Polar feelings have expressed positive or negative shade of meaning distinctly. Conditions of life and activity cause feelings of different activity level. There exist **sthenic** emotions and senses – which reinforce activity, and **asthenic** ones which depress human, making him less active.

Depending on individual peculiarities, his state and attitude towards the situation and objects provoking feelings, the emotions and feelings display more or less **intensively** and can be **long-term** or **short-term**.

A typical peculiarity of emotions and senses is that they «absorb» a person as a whole. Realizing almost instantaneous integration, ie uniting into the whole of all organism functions, emotions signal about useful or harmful influences on the organism. Thanks to it they have universal meaning for the organism life. Covering all the varieties of human experiences, – from deeply traumatizing sufferings to high joy forms and sensation of life, – emotions can not be only a positive factor of vital functions, ie to increase the organism activity, but they can influence them also negatively, oppressing all its functions. Famous physiologist P. Anokhin thinks, that emotions, and namely long-term negative emotions (fear, feeling of pain etc.), play a decisive role in the development of so-called neurological diseases.

The nature of emotions and feelings is connected with the needs organically. The necessity, as a need in something, is always associated with positive or negative feelings in their different variations. The character of experiences is caused by person's attitude towards needs, circumstances, which contribute or do not contribute to satisfaction.

Needs of man and animals differ in their character, intensity and the ways of their satisfaction. This cause a difference of emotions of people and animals even of those, which are considered to be typical of both of them: anger, fears, gladness, sorrow and so on. Emotions were changed deeply in the process of historical development of human being, they become «human», got some original peculiarities. Hunger, for example,

is experienced by human being not in such a way as by animal. Depending on the circumstances man can restrain hunger, but animal can not do it.

Man, as a social being, got the higher spiritual needs, and therefore – higher senses – moral, aesthetic, cognitive, which are not typical of animal. Animal emotions remained at the level of instinctive forms of vital functions. The feeling of shame (according to Ch. Darwin) is typical of human only. Emotions and human senses are connected with human activity: activity causes different experiences attitude towards it and its results, and emotions and sense, in their turn, stimulate human being to activity, inspire him, become force motive and his motives as well. Senses enrich human life. Ideas without senses are cold, «they shine but do not give warmth». They are without vitality and energy, and not capable of changing into actions. Conviction of something is impossible without senses.

15.2. Physiological Basis of Emotions and Senses

Emotions and feelings are a complicated reaction of the organism in which almost all the parts of the nervous system participate. The nature of emotions and feelings, as well as of all the rest of psychic processes, is reflexive. Physiological mechanism of emotions is the activity of undercortex nerve-centers, namely, the activity of hypothalamus, limbic systems, reticular formation. But the cortex of the big hemispheres of the cerebrum plays a leading role in emotions and senses displaying, realizing a regulative function of the undercortex processes, directing their activity according to realization of emotional experiences by human being.

Interaction between the cortex and undercortex centres of the nervous system takes place permanently. The undercortex, as I. Pavlov writes, influences the cortex of the big hemispheres positively as the source of their force, tones up the brain cortex, sending the powerful irritating streams to it. The cortex regulates excitations from undercortex, and under its action one of these excitations are realized in activity and behaviour, and others are slowed down depending on the circumstances and individual's states. Support or damage of nervous connections stability cause different emotions and senses.

According to I. Pavlov states, one of physiological feelings bases is **dynamic stereotypes**, ie formed during the active existence of the

temporal nervous connections. «Here senses of embarrassment and ease, cheerfulness and tiredness, satisfaction and grievance, gladness, exultation and despair, etc. appear, It seems to me, that such feelings very often while changing the usual way of life, while finishing usual activities, and while losing dear people... have a certain physiological basis mostly in changing of old dynamic stereotype and in forming a new complication one», I. Pavlov writes [13].

In emerging and cause of senses the second signal system in its interaction with the first one plays an important role. Word changes our mood, enthusiasm and deep emotional feelings. The best index of it is feelings, caused by poetical works. Realizing both a situation which causes certain senses, and senses of themselves, person can reduce force of emotional feelings, refraining from them or regulate them, but external emotions expression, internal emotional and sensitive state are kept.

15.3. Emotions and Senses Expression

Experiences of emotional states eg of joy, love, friendship, affection, favour or pain, grief, fear, hatred, contempt, aversion and so on, have always certain **external** or **internal expressions**. Emotions from hypothalamus are spread on all the ector organs. Just immediately after emotional excitation, the whole organism is included into it. External emotions and feelings expressions display in motions, poses, in motor and vocal mimicry, speech intonations, eyes motions etc. vividly. Internal, or visceral, expression of emotional experiences display brightly in rapid heartbeat, breathing, high blood pressure, changes in the endocrine glands, organs of digestion and excretions. This expression can be asthenic or sthenic, ie displays in depression or excitation.

Even babies have external or expressive expression of emotions and senses noticeable. But it is little differentiated yet. With some experience, especially while learning the way how to speak, expressive expression of emotions and senses gets various shades. Their riches is so great that there exists about 5000-6000 words in the language, which reveal different feelings. In the process of speech development child acquires expressive words gradually, slowing them down to some extent, but it does not mean, that this process can hinder emotion. P. Anokhin thinks, that in this case only some peripheral components of

emotions are depressed – motions, mimicry, and emotion by itself, if appeared, in the nature of things, spread on others, mainly on visceral components. However, the forming process of self-control of children is reflected on their vital functions and relations in the collective positively.

While mastering expressive methods of emotions and senses expression the ability to perceive and understand different forms and feelings expression shades, ability to recognize them is formed. At the same time the ability to use them in order to influence other people is developed. This ability is essential for artist, especially for teacher, who, having discovered pupil's internal states and feelings, can manage them, influence others with the purpose of up-bringing children by his own expressive feelings.

Depending on the circumstances and organism state, its training for emotional experiences, feelings and emotions can be expressed differently. Sense of fear, for example, can cause asthenic reaction, – constraint shock, or sthenic reaction as well. Grief can bring on apathy, inaction, confusion or certain energetic actions.

Forms and intensity emotions and senses display, to a considerable extent, depend on breeding, personality culture level, traditions and customs. They are reflected on expressing them by external methods by mimic and pantomime motions, gestures especially. Their internal expression (palpitation, breathing, the action of the endocrine system) takes place not depending on social factors relatively.

15.4. Forms of Emotions and Senses Experiences

Emotional states and forms of their expression are determined mainly by social factors, but it is impossible to ignore some born human peculiarities while studying their nature. The variety of emotional states is expressed in the forms of mood, affects, stresses, frustrations, passions.

Mood – is a general emotional state, which originally colours human activity for a definite period of time, and characterizes its vital tone. One can distinguish positive moods, which are expressed in the form of cheerfulness, and negative ones, which depress and cause passivity. Mood is a common emotional state, which is not aimed at something concrete distinctly. The reasons of moods causes are various: eg non-training for activity, fear before an expectative fail, sickly states,

good news and so on. Superstition takes a special place among the reasons of mood changing. Believing in ghosts, especially negative, brings on passivity, fear, disorders psychic personal activity. The pliability degree of mood has an individual character. Persons, who show self-control, are steady to mood change, they are not in low spirits even when there are some reasons for it, but on the contrary, they struggle against difficulties. Faint-hearted people yield to mood changes very fast. They need a kind of support.

Affect – is a strong, short excitement which appears suddenly and it overcomes man so strongly, that he loses the ability to control his actions and deeds. The example of it can be unexpected experience of joy, a burst of anger, fear. In the state of affect especially the self-regulation of human actions takes place, which is realized by the endocrine system, activity of the internal organs, the processes of the big hemispheres of the cerebrum is slowed down. I. Pavlov, analysing the state of affect, states, that person in the state of affect, which exceeds inhibit cortex function, says and makes things, that he will never do being in the quiet, normal state and will be sorry about it, when affect will passes off. The affect state is shown especially in the state of intoxication, because inhibition processes in this case are reduced. Affect can be caused by unexpected vital situations, which human being is involved into. Affect, as well as mood, depends, to some extent, on individual's peculiarities: one's temperament, character, breeding. Hot-tempered peoples very often can lose their control because of any reason. Affects bring on deep changes in psychic life, exhaust human being. Man, having an ability to control himself, his actions, can control his affect emotional reactions. At the same time, affect life is typical of all people, to some extent, without which they would turn into indifferent passive beings.

Stress reminds of affect a little. It, as well as affect, arises under tense life and activity conditions, in dangerous situations, which appear unexpectedly and demand some immediate arrangements of their overcoming. Human behaviour is disorganized, to a considerable extent, in the state of stress. In time of stress disorderly motions speech disturbance, mistakes in switching of attention, in perception, memory and thinking are observed. Moreover, inadequate emotions display in this case. Only strong skills and habits in stress state can remain without changes. Practice give evidence, that discipline, good organization and self-control prevent disorganization under stress conditions.

Frustration is a special emotional state, typical sign of which is consciousness and activity disorganization in the state of hopelessness, and perspective loss. One can distinguish the following types of frustration: aggressiveness, activity, by one's own momentum, depression states. Melancholy, uncertainty, weakness, and despair are typical of these states. Frustration arises as a result of interpersonal conflicts especially in the group of people, where man does not have any support, and sympathetic attitude. Negative social estimation of personality which affects one's significance, and meaningful relations, threatens one's prestige, human dignity, can cause a state of frustration. It is typical of people of raised excitability, who have developed hindered processes insufficiently, and also of ill-bread children.

Passions are long steady, strong feelings, which absorb man, control him and display in the combination of all the aspirations of personality in one direction, in their concentration on one goal only. Passion – is considerable power of human, who tries to attain his object. It evokes unremitting energy in aspiration for the aim. Passion displays in various spheres of human life and activity: eg in work, studying, science, sport, art. It has a selective character and displays not only in emotional, but also in cognitive, volitional spheres and in the form of persistency.

One can distinguish positive and negative passions. Even positive passion, in the case of interfering activity, studying, becomes negative. When a pupil, being fond of reading or sport, misses the lessons, or does not sleep during the necessary period of time, that is this enthralment turns from the positive passion into the negative one. Person's propensity for alcohol, smoking influence his activity and way of life.

Positive passions for work or studying is the very personality power, which cause much energy in activity, contributes to work productivity.

15.5. Higher Senses

Higher senses play a special part in human emotional sphere. They are the reflection of attitude towards phenomena of social reality and their experiences. According to their sense, higher senses are subdivided into moral, aesthetic, intellectual and praxic ones. A level of

spiritual individual's development is estimated by the inherent degree of these senses. Higher senses reveal their emotional, intellectual and volitional components aesthetically. These senses are not personal experience only, but also the way of bringing up influence on other people.

Moral senses – are senses, in which individual's steady attitude towards social events, other people and to oneself display. The source of moral senses is a life together with people, their relations, struggle for achieving social goals. Human moral senses were formed in the process of social-historical life of people, in the process of their communication and have become an important way of acts and behaviour evaluation, and the regulation of individual's relations.

Aesthetic senses – are the senses of beauty in nature phenomena, in working, in the harmony of colours, sounds, motions and forms. Harmonic combination and sequence of the whole and parts of objects, their rhythm, consonance, symmetry evoke the sense of pleasure, delight, which is deeply experienced and ennobles human soul. These senses cause creating of art works. Man can confirm himself in objective world not only in thinking, but also in senses.

Depending on the general cultural level of general and cultural art people respond to beauty in different way. Some people perceive rhythm and rhyme expressed in harmony, various combinations of colours sounds, forms and motions. But other people do not feel this harmony and, as a result, they are fond of sharp sounds, disorderly motions, and accidental combinations of colours.

Aesthetic senses are closely connected with moral senses. They ennoble person, overflow him with high aspirations, and prevent him from doing negative actions. So, aesthetic senses are the essential factors in the process of human moral character formation.

The higher levels of aesthetic sense development display in senses of everything which is higher, tragic, comic, humourous. These varieties of aesthetic senses are connected with moral senses organically and that is why they are important methods of their forming.

Praxic senses – are human emotional experiences of his attitude feelings of some activity. Human being reacts to the different types of activity: eg work, studying, sport. This can be displayed in enthusiasm, in activity satisfaction, creative approach, in gladness or

in dissatisfaction about activity results, indifferent attitude towards activity. Praxic senses appear in activity. Bright conception about activity sense and forms, its process, result, and social value are basic prerequisite of emerging and development of praxic senses.

Praxic senses develop or disappear depending on organization and activity conditions. They develop and become steady especially successful, when activity is correlated with individual's interests, inclinations and when creation elements appears in activity, and perspectives of its development are stimulated.

Praxic senses become more rich when they are combined with moral ones. Work, as the deed of honour and humanistic attitude towards activity, make praxic senses an important struggle factor for high productivity and quality.

Intellectual senses are an emotional reaction of individual's attitude towards cognitive activity in its broad sense. These senses display in inquisitiveness, feeling of something new, surprise, confidence or doubt. Intellectual senses also display in cognitive interests, love of knowledge, teaching and scientific interests.

Cognitive senses depending on life, teaching and upbringing conditions have different levels of their development. Curiosity, inquisitiveness, steady, purposeful interest in certain branch of knowledge, love of cognitive activity are such their levels. The mechanism of cognitive senses is the born reference reflex, but its essence depends on teaching, education, surrounding reality and life conditions completely.

Theme Key Notions

➔ **Senses, emotions, sthenic senses, asthenic senses, perceptible tone, moods, affect, passions, stresses, frustration, moral senses, intellectual senses, aesthetic senses, praxic sense.**

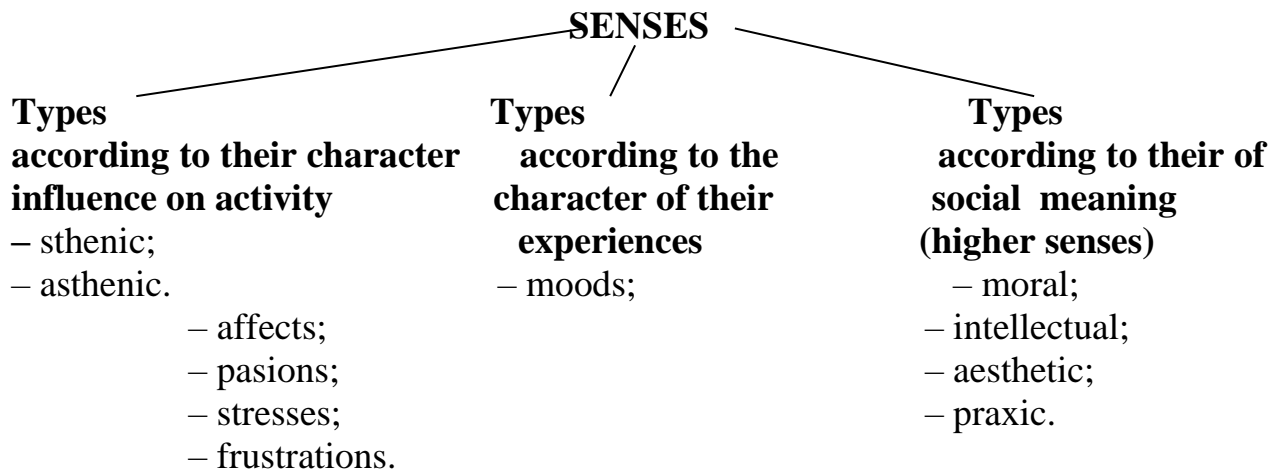
Formalized Structure of the Theme Contents

Psychological function of senses:

individual's emotional towards attitude objective reality.

Physiological mechanism of senses:

interaction of the undercortex centres with the cortex of the big hemispheres of cerebrum (their leading role).



Questions for Individual Work

1. In what way does reflection of reality take place in senses and what is the difference between reflection of reality and reflection in cognitive processes?
2. What is the difference between emotions and senses?
3. Which factors can indicate the signs of human state of emotional excitation?
4. Which objective and subjective factors can influence mood?
5. What are the basic affect signs?
6. What signs is passion as a form of emotional experiences characterized by?
7. What are the differences between human and animal emotions?
8. Why do intellectual, aesthetic, praxic and moral senses belong to higher senses?

Alternative Test Tasks for Self-Control

1. Do you agree that the distinctions between emotions and senses are mostly of quantitative character?
2. Do you agree that physiological basis of higher senses is the cortex and undercortex of cerebrum?
3. Are expressive motions considered to be the only one display of human emotional states?
4. Is mood a result of quantitative advantage of positive or negative emotions?
5. Do you agree with the statement, that richness of human emotional life depends only on richness of its contacts with the objective world?

6. Does a human being always lose control over his behaviour being in a state of affect?
7. Does a fear of something unknown usually cause a stress state?
8. Can one affirm that the notions «moral senses» and «moral persuasions» are, in principal, identical?
9. Can one affirm that the nature of stress and frustration are absolutely different according to the mechanism of their origin?

Task and Problem-Solving Situations

1. How can it be explained, that a long divorce of close people is always accompanied by steady negative experiences?
2. In what way can it be explained, that the character of emotional reactions is sometimes inadequate to objective influences?
3. Why does man in grief feel easier, after having roped sob out his grief?
4. Can the emotions regulation at the level of the undercortex be connected with consciousness?
5. Under the influence of what factors do personality moral senses display?

Used and Suggested Literature

1. *Додонов Б.И.* В мире эмоций. – К.: Политиздат Украины, 1987.
2. *Емоційний розвиток дитини / Упоряд.: С. Максименко, К. Максименко, О. Главник* – К.: Мікрос-СВС, 2003.
3. *Загальна психологія: Підруч. для студентів вищ. навч. закладів / За загальн. ред. акад. С.Д. Максименка.* – К.: Форум, 2002.
4. *Максименко С.Д.* Общая психология. – М.: Рефл-бук, К.: Вак-лер, 2001.
5. *Психологія / За ред. Г.С. Костюка.* – К.: Рад. школа, 1968.
6. *Sergey Maksymenko.* General Psychology. – Vinnytsya, 2005.

Part 16

WILL

16.1. Concept of Will

Will is a psychic process of conscious and purposeful regulation by human being his activity and behaviour with a purpose of achieving set goals.

In volitional actions man realizes his own conscious goal. Conscious activity – is an **arbitrary activity**. Arbitrary effort of physical forces, arbitrary perception, memorizing, arbitrary attention, etc. are the conscious regulation, conscious aspiration of physical and mental forces with the purpose of achieving of consciously set goal. So, will is one of the most important conditions of human activity.

Human will was appeared out in the process of his socio-historical development, in working activity. Living and working, people gradually learned to set definite goals themselves and consciously realize them. In the process of existence struggle, while overcoming some difficulties, using forces or controlling himself, man developed different will qualities in himself. The more important were the goals, which were set in the life, the more deep they realized them, the more active they achieved their realization.

Volitional activity can not be treated as the organism activity, be identified with it. Activity is also typical of animals. They, satisfying their biological needs, while adaptating to life conditions, have influenced the environment for a long time, but it takes place without any intention from their side.

Will is displays in a certain effort, in internal strength and energy, which it experienced by human being, overcoming internal and external difficulties, in aspiration to actions or inhibition.

Will is a determinized process. Determinized will concept is corroborated by

I. Sechenov and I. Pavlov' physiological researches. I. Sechenov points out, that volitional actions are causally conditioned by external irritants [12]. All arbitrary motions are reflective, ie reflexive. I. Pavlov stresses, that the whole mechanism of volitional motion – is an associative conditional process, which is subordinated by all the

described laws of higher nervous activity. He proves, that arbitrary actions, which are caused by internal effort, are caused by the motor area of the cerebrum at the same time is a sensory part as well as visual, auditory and so on. The traces, left in the motor part of the cortex of cerebrum by previous irritants, stimulating, can become conditional irritants for volitional motions. Excitation is a mechanism of arbitrary motions that originates from the cortex of the big hemispheres of the cerebrum. The kinesthetic cortex cells are connected with all the cortex cells, they express both external influences and internal processes of the organism. This becomes the very basis of arbitrary motions. Arbitrary actions, like all the other human actions are determined, but sometimes it seems they arise by themselves, without any reason, because they appear thanks to some traces in the cortex of cerebrum from the previous irritants.

The fact, that the motor part of the cortex of the big hemispheres of the cerebrum is a sensory one, at the same time, plays an important role in the regulation of volitional actions. P. Anokhin writes that in the process of volitional actions from the system to the cortex of the cerebrum the information about actions (**reverse afferentation**) comes, where it is compared with the image of the planned action, anticipating its results. This comparison of performed action with its image, which P. Anokhin called acceptor, contributes to specification of the reflex act according to human aspirations.

16.2. Arbitrary Actions and Their Peculiarities

In volitional activity one can distinguish arbitrary and spontaneous actions.

Spontaneous motions are unrealized actions and motions. These are, first of all, unconditioned-reflex motions, which are caused by unconditioned irritants and done by the undercortex parts of the central nervous system. They are connected with the organism protection from damages or satisfaction of its organic needs. Spontaneous motions can not be only unconditioned reflex, but also conditioned reflex. Spontaneous motions are not realized, and hence, not controlled. It happens very often, when the irritants act suddenly, unexpectedly.

Arbitrary actions and motions are always conscious. They are characterized by purposefulness and certain self-discipline. In the

process of conscious task execution motions are controlled and become arbitrary. Even spontaneous unconditioned reflex motions, for example, eyes winking, coughing, breathing and others can be regulated at one's own choosing. In his life man uses predominantly not separate arbitrary motions, but arbitrary actions, consisting of motions, which form a certain system. While learning to read, write, play any musical instrument, human being realizes a lot of arbitrary motions and actions.

Arbitrary motions are more complicated, than spontaneous ones. However, as I. Sechenov and I. Pavlov confirmed, there is no any principle difference in the mechanism of their realization. Arbitrary motions, as well as spontaneous ones, have reflex character. Arbitrary human actions appear by conditioned reflex way from spontaneous motions. All the motions of small children are spontaneous. But as a result of teaching and education, children master them gradually, learn how to direct their motions and to control them consciously.

Each realized spontaneous motion is done purposefully and becomes arbitrary. Such motions, as drumming on the table with one's fingers can be spontaneous, unrealized, but they can become arbitrary, if they are done intentionally, with a definite purpose, for example, to beat time while singing or teaching music. At the same time each arbitrary motion, as a result of reiteration, becomes so habitual, that man does it automatically, not concentrating his attention on it. For example, while teaching writing and music each hand motion is done consciously, and having learnt to write or play any musical instrument, man does these motions already automatically, spontaneously.

Motions and actions are caused by external irritants. As a result of actions with objects in the cortex of the big hemispheres of human cerebrum conceptions not only about objects of outer world arise, but also, about actions with these objects and motions of the body. Traces activization, which is the basic for these motor images, cause motions of the different body organs. So, motions and actions of these organs are caused not only by external irritants acting immediately on us, but centrally, by traces aroused in the cortex of the big hemispheres of cerebrum, formed by previous external

irritations, which are basic as for conceptions, thoughts, convictions and so on.

In the process of human development person learned not only **to act** at will, but **to retard** his actions as well. Hindering is a basic concept of it, which is produced in teaching and educational process. While acting at will and retarding his actions at will man can regulate his own activity and behaviour by himself.

Speech plays an important role in realization of the volitional acts. I. Pavlov points out, that all the words of our speech are connected with all the external irritations, which come to the cortex of the big hemispheres of the cerebrum. That is why, with the help of speech, one can cause all the organism actions, as provoked by these irritations. A word, replacing the concrete irritants, plays the same role as the first signals, bringing on the necessary motions and actions. So, volitional motions and actions are based on interaction of the first and second signal systems.

The second signal system – speech – plays a leading role in complicated volitional activity. It is basic as for conscious control by human his activity.

But speech signals become the method of arbitrary activity not at that time, when a word simply replaces oneself with an external irritant, but when it becomes a method of the internal analysis of this irritant. In this case analysis becomes a subject of internal speech. As a result of the irritant analysis internal speech or as I. Pavlov writes, that speech “têt-a-têt” plays a role of the central internal “starting signal”, of volitional actions, – actions “proceeding from cortex of the big hemispheres of the cerebrum”. A speech, as a signal, brings on purposeful actions: one of them are lingered in one’s mind, hindered, others are directed at achieving the goal.

A speech plays an important role in the development of arbitrary motions and actions.

16.3. Analysis of Complicated Volitional Action

Human volitional actions are determined by consciously set aim. While acting man sets himself different tasks, plans their execution, chooses the methods of solving tasks. In order to study successfully, a pupil should realize a teaching goal, his school tasks, be able to organize their execution and be persistent.

Each volitional action is motivated by something. **Motive** – is a driving force, which makes man act and strive for a set goal. Motives of actions are human needs, senses, interests, and realization of the necessity to act.

Aim clarity, understanding task, realization of task and its importance always give power, energy and decisive actions. The greater social sense task acquires, the greater energy and favour will be demonstrated by people in the process of its achievement. A passion for one's activity prompts people to creative work.

Volitional actions can be simple and complicated.

Simple volitional action is such action, which does not demand special efforts and special action organization. It is characterized by immediate transition of desire into decision and realization of this decision. For example, if man wants to drink, he, at once pours some water into the glass and drinks it; if it is cold, he puts a coat on. These actions do not demand complicated methods for their execution.

Complicated volitional action demands considerable forces effort, patience, persistency, the ability to organize oneself with the purpose of executing an action. So, a pupil, while solving the mathematical tasks, in order to achieve a desirable goal must realize a number of volitional actions. Complication of volitional action depends on task complication it is directed at.

Human will displays in overcoming of not only external difficulties, typical of different types of activity, but also internal, inborne difficulties for example, desires, which contradict the set tasks, tiredness. Overcoming internal difficulties demands the realization of the necessity to fulfill any task and presence of self-control.

Man aspiration, that is basic for his action, sometimes displays in the form of bent **inclinations**. As a rule, inclinations can be are inexpressive and little realized. Man strives for something, but he does not realize distinctly what he wants properly. Aspirations, that display only in inclinations form, do not cause a purposeful volitional action.

Realizing his inclinations, human being changes them into **desires** by himself. Longing for something, human being can already see the goal of his aspiration and direction of his activity more or less distinctly.

However, having realized the goal of his activity, man need to see the way of acting in order to realize this task successfully, to work out the methods for its achievement. While choosing the necessary ways and methods, man realizes his aspirations in this process more deeply. Profoundly realized aspiration, distinct picture of the task goal, and the ways and methods of its realization, cause **longing** and active desire.

After will goes action, which completes volitional act. However, it does not always happen. Man sometimes hesitates: he does not know whether to do something or not. In this case a special intermediate state is observed, in realization of volitional act, which is called **motive collision**. It takes place, when man has discrepant desires, which can provoke realization of certain action, or turn him away from it. For example, pupil can have fight between the desire to do his homework to go to the cinema with his friends. As a result, a pupil makes certain **decision**. It displays as intention to act or to give up the action.

Deeply realized decision comes into action. At first action is planned, the necessary methods are choosen, and the task is accomplished, finally it is finished. For instance, a pupil, having decided to design a radioset, draws a scheme, gets the details necessary for the radio receiver, and, finally, creates it. In such a way the taken decision finishes.

Success of volitional act depends on human volitional qualities, the depth of task realization, one's interest, and also knowledge, skills and habits to do something, without which a successful aim achieving is impossible. Skills and usual actions make volitional actions more clear and organized, contribute to fast and successful execution.

Any action can be more successful in the case of becoming usual. Habits and skills contribute to difficulties easier overcoming and successful action accomplishment.

16.4. Main Will Qualities

Purposefulness is one of major volitional qualities of personality. It is determined by human adherence to principle and persuasion, and displays in deep realization of his tasks and the necessity of their realization. Purposefulness displays in the ability to manage actions by not accidental aspirations, but by steady persuasions, principles.

Personality purposefulness and adherence to principle are the basis of strong will.

People without distinct purposefulness, firm persuasions and principles, according to which they can act, are very often under the influence of accidental desires and other people can influence them negatively. Behaviour of unpurposeful and unprincipled people is characterized by weak will. Human being can't have any strong will without firm persuasion and principle behaviour attitude.

The important human volitional quality is **initiaveness** or ability to set some tasks oneself independently and solve them by himself without any reminding and compulsions of other people.

Human initiaveness is characterized by **efficacious activity**. It is not enough, having expressed initiative, to set a task. One should fulfill it, to carry it through. This is possible only under the condition of proper activity in actions.

Essential human will qualities are also **deciciveness, firmness and persistency**. These qualities display in taking in-time and thought-over decisions, especially under the difficult circumstances, in hindering negative aspirations and actions, in human ability to overcome difficulties arising on the way of achieving the goal. These human qualities help person to go through with all the problems and difficulties. Big actions, prominent scientific inventions are possible only thanks to presence of these qualities.

Human persistency must be distinguished from such quality, as obstinacy. Obstinacy – is (unreasonably determined), not justified will display, which means refusing to change one's opinion or chosen course of action, inexpedient desire, without taking into one's account any circumstances. **Obstinacy** is not an index of powerfulness, but of will weakness. While taking any decisions, obstinate person disclaims clever proofs, not taking into his consideration interests of other people, social interests and very often make harm them. Obstinacy is a negative human quality, that is why one should try to avoid it.

Independence is an important volitional human quality. Will independence becomes apparent in human ability to treat both his own acts and actions critically, and acts of other peoples, not to be under others negative influence. Independence is the result of high human principle adherence, moral fibre and self-control.

Suggestion is an opposite human quality to independence. Suggestions display in person's falling under other's influence easily. Suggestions is typical of people, who do not have firm persuasions and principles, who uncritically always copy what the others do, vacillate between the opposite points of view without any own one. The first best thought, heard by such person, becomes his or her own thought, but afterwards, such person changes one's mind and uses another thought.

Those, who are easily submitted by suggestion and self-suggestion, are the people with unsteady will.

Self-control is an important volitional human quality. It displays in human ability to control himself, to regulate his own behaviour and activity. Self-control is an important component of such personality quality, as **courage**. While controlling himself man starts solving a responsible task bravely, though realizing, that this task is connected with danger and even threatens his life. Self-control is one of essential qualities of people who have good discipline.

Lack of self-control makes man **unrestrained** and **impulsive**. The people, who do not control themselves, are easily fall under senses control, very often breaks discipline. They are afraid of difficulties and fall into desperation.

Conformity is a specific display of personality weak will. Conformity means the tendency to shift one's opinions or actions to correspond with those of other people because of implicit or explicit social pressure. In spite of the fact that a person, having his own point of view, falls under others' influence, group pressure in his actions and acts, does not express any independence, and defend his positions. Researchers have collected evidence that it is typical of conformal people to have non-flexible psychic processes, they lack ideas, their ability to control, themselves is weakened. Such people have a superficial opinion about themselves, they don't have enough trust into themselves and display passivity, suggestion and dependence on other people.

The complex of positive will qualities, typical of human being, are conditioned by his **will-power**. Positive and negative qualities of will are not innate. They are developed during the process of life and activity.

16.5. Weak Will, its Reasons and Overcoming

Weak will becomes apparent in different human physical and mental actions. The distinctive peculiarities of weak-willed person are reducing of general activity, psychic languid, hesitation in taking decision where actions necessity is evident. Weak-willed people do not go through with deals, incapable of overcoming even insignificant difficulties. They are easily distracted from important activity, setting to work on something unnecessary and shallow. Purposeful steady interests, independence and critical attitude towards oneself and others are not typical of them.

The flabby people do not have their own opinions, can easily fall under the influence of other people, easily go under suggestion and self-suggestion, and that is why are uncertain in their actions. They are not initiative, though they know the deal, but still incapable of restraining their desires, overcoming different emotional states such as anger, fear, affect etc. In the cases of emergency they are bewildered, become helpless. Dreaminess is typical of them, sometimes they introduce interesting ideas, but do not realize them.

Weak will is a characteristic of conform people, who avoid taking independent decisions, and at the same time they are inclined to accept others' views passively, adopt themselves to ready behaviour standards. The cases of sickly weak will are known as **abulia**.

Weak will is caused by many reasons. It is sometimes caused by organic or functional disorders in activity of the cortex of the big hemispheres of the cerebrum, especially its frontal segments, dissociation, action images and motions separation, passivity of ideas and conceptions. It is caused by different illnesses, especially alcohol and drugs use, which brings on passivity of mental activity. These illnesses disorder the hindering function of the cortex of the big hemispheres of the cerebrum, and as a result, the undercortex processes, especially emotions, are activated.

But weak will depends very often on upbringing. Restricting of children's motions and actions, trying to help them in everything, can cause passivity, which becomes a habit, which can be re-educated in elder age with difficulty. It is essential to bring up children to respect work and to form motivation to complete the action. These are the major directions which are aimed at

overcoming weak will. Physical education, sport, different types of competitions contribute to activity self-control and strong will development greatly.

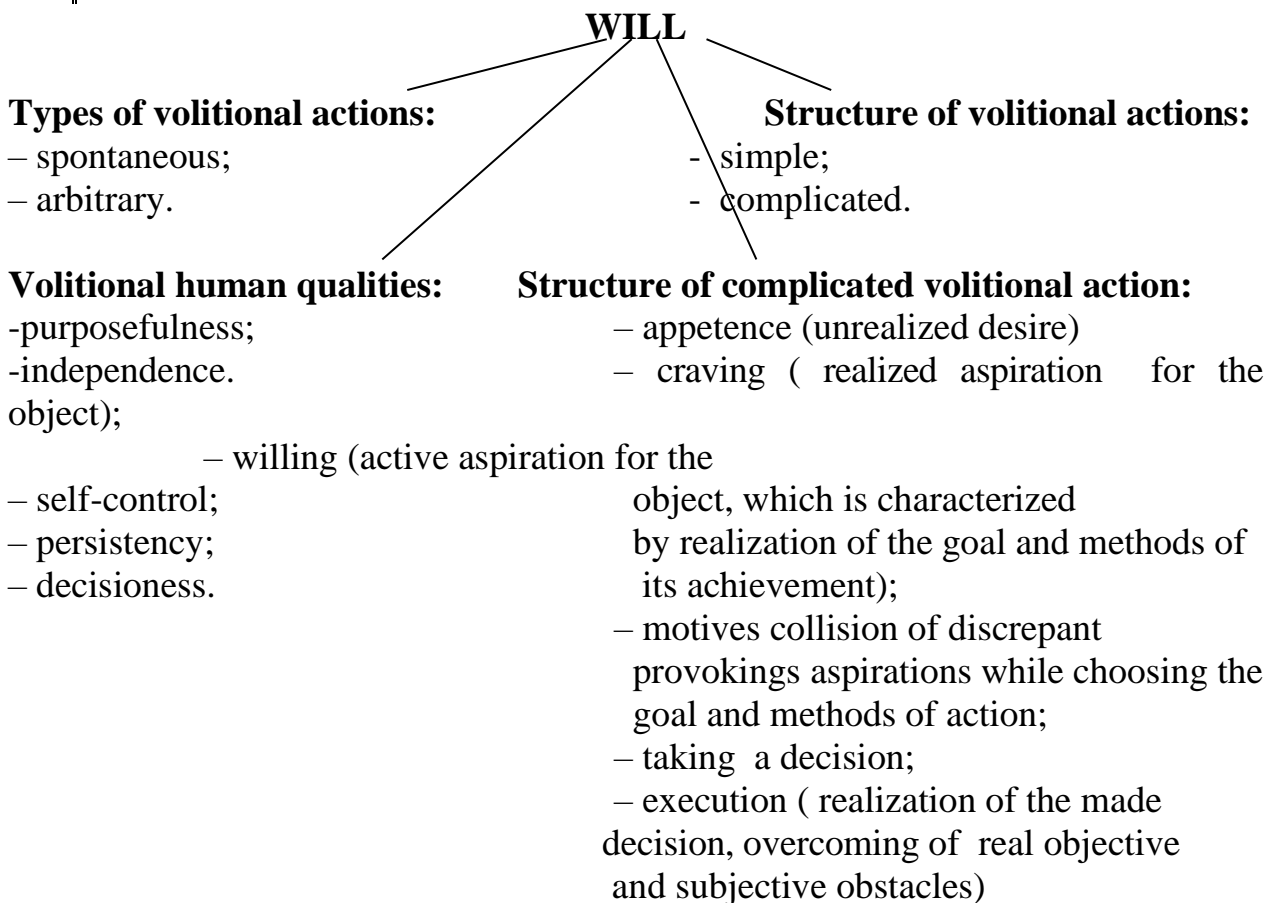
Theme Key Notions

→ **Will, spontaneous action, arbitrary action, volitional effort, action, hindering, craving, inclination, wish, motive, collision, taking a decision, will-power, weak will, abulia.**

Formalized Structure of the Theme Contents

Psychological will function:
conscious regulation of personality psychic activity

Physiological will mechanism:
reflex excitation of the kinesthetic cortex cells of the big hemispheres of the cerebrum on the strength of traces activation from the irritants acting before.



Questions for Individual Work

1. What do the basic will functions display in?
2. What is the main difference between arbitrary and spontaneous actions?

3. What is volitional effort and what causes it ?
4. What is will-power and what is it caused by?
5. Describe the basic development stages of complicated volitional action.
6. What are the psychological differences between the notions of “will” and “anxiety”?
7. What reasons can cause the motives collision?
8. What can influence the process of taking a decision?
9. What factors do influence human will development considerably?
10. What is weak will and what is it caused by?

Alternative Test Tasks for Self-Control

1. Is any conscious action a volitional one?
2. Is volitional effort always typical of arbitrary action ?
3. Is action hampering always can be a description of strong will?
4. Is there any appropriate link between personality high consciousness and will-power ?
5. Does a real situation of activity always demand, the presence all of the stages of complicated volitional action?
6. Can one affirm, that motive collision, as the stage of volitional action, can be caused both by subjective and objective factors?
7. Can one affirm, that a human work was the basic forming source of will?
8. Is obstinacy a sign of a strong will?

Task and Problem-Solving Situations

1. It sometimes happens in life, that, having taken a decision, man starts to doubt in rightness of action realization. What is the reason of such contradictions appearance? What will peculiarities does it testify about?
2. It is known, that, if the person, who is trained in driving bicycle for the first time, is said that he will fall down anyway, he will really fall down. What will mechanisms display in this case?
3. While communicating with children adults like using such utterances as: «There is, only nonsense in your mind», «I was sure I would hear from you only this nonsense». Can these remarks always influence positively? What child’s qualities formation does it influence?
4. In what cases can human acts estimation stimulate his will?

5. In what ways of self-improving can contribute to forming volitional qualities?

Used and Suggested Literature

1. Загальна психологія: Підруч. для студентів вищ. навч. заклад./ Під загальн. ред. акад. С.Д. Максименка. К.: Forum, 2002.

2. *Котырло В.К.* Развитие волевого поведения дошкольников. К.: Радянська школа, 1971.

3. *Максименко С. Д.* Общая психология. Т.:Рефл-бук, К.:Ваклер, 2001

4. *Психологія* / За ред. Г.С Костюка. К.: Радянська школа, 1968.

5. *Sergey Maksymenko.* General Psychology. – Vinnytsya, 2005.

CHAPTER VI PERSONALITY INDIVIDUAL-PSYCHOLOGICAL PECULIARITIES

Part 17 TEMPERAMENT

17.1. Concept of Temperament

Individual peculiarities which influence personality life, his behaviour and activity stands out against the background of physical and psychic peculiarities common to all mankind.

Physical individual peculiarities – are an organism constitution, its physiological processes (humoral, endocrine, nervous). Every separate organism has its own processes, happening in its own way, though they are common for all the people. It is caused by antropogenesis, ie by human origin and development.

The psychic individual peculiarities are shown in different speed of reactions, sensitivity thresholds, attention properties, memory, observation, ingenuity in interests. People differ in their individual abilities especially vividly: eg in musical, representational, sport, artistic – literary ones.

Individual and psychological peculiarities are the unique psyche peculiarity of every human being. Natural precondition of human individual peculiarities is, first of all, hereditary and inborn biological peculiarities of the organism structure and functions. Child is born with concrete inborn qualities which during the life-long period serve as the basis of future structure and functioning organism development, individual psychic being.

However, inborn biological peculiarities do not fatally determine personality individual qualities. It has been proved by many special psychological and physiological researches that inborn changes depending on life and education conditions. I. Pavlov in his famous scientific work “Physiologist’ answers to Psychologists” writes, that due to extraordinary great plasticity of the higher nervous activity nothing

is motionless in it, but everything can always be reached and changed in the case of creating of better suitable conditions.

Personality individual peculiarities must be distinguished from the age peculiarities, which come with maturing or aging of the organism. Personality individual qualities, for example, reaction speed, activity degree, impressionability are shown not depending on age without special changes. At the same time, when time passes under the influence of life and education, individual peculiarity becomes apparent in cognitive, emotional and volitional activity, character traits, interests. It gives the ground to consider a human being to be clever or not clever, impressionable or “thick-skinned” emotionally, strong-willed or weak-willed, brave or cowardly. At some age stages of human development, for example, at adolescent stage, age and individual peculiarities are hardly differentiated. Impulsiveness, intemperance, impressionability of teenagers (if not to take into one’s account the circumstances, under which they become apparent) are easily determined as the display of individual traits and age peculiarities. In the process of educational work it is important to differentiate age aspects from individual one’s in order to find the right educational methods.

Personality individual peculiarities are shown in **temperament, character** and **abilities**, in emotional, volitional activity, needs and interests vividly. Peculiarities of their displaying depend on upbringing child. Individual character traits, as evidence testify, are become apparent in pre-school age brightly.

Individual approach to children is of vital importance in educational process. A.Makarenko advises educators to remember, that «people are absolutely» differ for upbringing, and it would be incredible to try to squeeze each individual into the frame general for everyone.

Individual distinctions between people are studied by **differential psychology**. Psychology of work, art, teaching and education, using psychological laws must always be caused by knowledge of individual distinctions between people. It is impossible to train young people to be ready for work and conscious choice of their future profession without such knowledge.

Human activity and behaviour are caused not only by social life conditions, but also by individual peculiarities of its psycho-physiological organization. This becomes apparent in personality **temperament** distinctly.

Temperament (from the Latin "temperare" it means to mix in proper correlations, to warm, cool, make slow, lead control) characterizes a **dynamic** side of psychic human reactions, – their **tempo, speed, rhythm and intensity**. Every person reacts to the same irritants (according to the nature and aim) individually, in one's own way. Some react to them actively, smartly, deeply emotionally. They experience an irritant influence for a long time, and others – quietly, slowly, forgetting about the influence quickly. Some people react to the events, and attitude towards them too affectingly: they become angry, act aggressively, and some people, in this case, express timidity, do not show any oppression where it is necessary. So, temperament can be defined as human individual peculiarity, that is shown in its excitability, emotional impressionability, calmness and speed of psychic activity cause.

Individual peculiarities of reacting to various circumstances made the basis for the division of people into some groups or types of temperament.

The theory about temperament was founded by famous Old Greek doctor and philosopher Hippocrates. He and his followers (Roman doctor Galen and others) upheld the Humoral theory (from the Latin word "humor" – liquid, organism liquids – blood, phlegma, bile), according to which temperament is caused by the superiority of the certain liquid in the organism. Hippocrates thought, that organism vital function is determined by the correlation between the blood, bile and mucus (lymph, phlegma). So, on the basis of this view the theory about four temperament types was formed: **sanguine** (from the Latin word "sanguis" which means the blood, superiority of the blood in organism), **phlegmatic** (from the Greek word "phlegma" – the mucus, superiority of the mucus in organism), **choleric** (from the Greek word "chole" – the bile, superiority of the bile in the organism), and **melancholy** (from the Greek word "melas" – black, gloomy and "chole" – the bile, superiority of the black bile in organism). Nowadays this theory is interesting only from the historical point of view. Typical temperament peculiarities described by Hippocrates, determine the peculiarities, of the certain temperament types. I.Pavlov while studying a temperament problem, wrote, that genius observer Hippocrates was more exact in the temperaments classification.

German philosopher-idealist I.Kant accepting the views of the representatives of humoral temperament theory, gave the original psychological temperaments description for the first time. According to his opinion, phlegmatic people lack moral senses, melancholics – a real virtue. A highly developed sense of honour is typical of choleric people and sanguine ones have a sense of beauty. But I.Kant mixed the peculiarities of temperament with character traits in his understanding of this notion.

Russian scientist, doctor and teacher P. Lesgaft explained temperament as the result of the blood circulation, peculiarities, which depend on the hole diameter, flexibility and thickness of vascular sides. A vascular calibre and thickness of its sides, to P. Lesgaft's mind, cause the blood circulation speed and force. A small vascular diameter determines a sanguine temperament and a big diameter and thick sides of vascular – melancholy; phlegmatic temperament is determined by a big diameter and thin vascular sides.

German psychiatrist E. Krechmer stood for the dependence of psychic personal structure on body constitution. He offered his own constitution types classification, (**pycnic, asthenic, athletic, displatic types**) and he thought, that each of them had a certain temperament.

The humoral and morphological theories of temperament have serious lacks. According to these theories, physiological systems of organism are the basis of temperament, which do not have the necessary properties for it. Moreover, these theories don't differentiate between temperament of the healthy and sick organisms, explaining temperament only by biological factors, and that is why do not reveal everything in its nature. But it is impossible to ignore these theories in explanation of the temperament displaying. It is known, that the damage of humoral and endocrine organism system function can cause some psychopathies, reflected on the peculiarities of the temperament types (for instance, schizophrenia, maniacal-depressed psychoses, schizophrenic mood, psychasthenia and others).

17.2. Types of Temperaments

In modern psychology everybody uses Hippocrates' classification of temperament types. There are four types of them. They are the following: **sanguine, choleric, phlegmatic** and **melancholic**. Peculiar psychological peculiarities are typical of each of these types. A sanguine

person is characterized by high nervous and phsyic activity, facial expressions, a great number of motions, and emotionality, impressionability, lability. At the same time, emotional experiences of sanguinic person are mostly superficial, and his mobility, unsatisfactory educational influences presuppose an insufficient concentration, haste and sometimes superficiality.

A high level of nervous and psychic activity and energy of actions, sharpness and motions impetuosity, strong impulsiveness and vividness of emotional feelings are typical of **choleric person**. An insufficient emotional and impellent balance of choleric can be shown in the absence of proper education and in the lack of self-control, quick temper, inability to control oneself under the emotional circumstances.

A phlegmatic person is characterised by the comparatively low behavior activity, complication in switching one’s attention, slowness and quitness of actions, even mimicry and speech, equality, constancy and the depth of senses moods. Poor upbringing can cause such negative traits, as languour, pooreness and weakness of emotions, inclination only to usual actions execution.

A melancholic person is characterized by low nervous-psychic activity, restraint and the low level of motor qualities and speech, considerable emotional reactivity, senses depth and steadiness, but their external expression is weak. In the case of insufficient upbringing a melancholic person can obtain such negative traits, as emotional impressionability, reficence, estrangement, inclination to terrible internal feelings under the circumstances, which do not deserve to be paid attention to.

A connection between the temperament types and types of higher nervous activity are shown in the table below.

Temperament Description

Connection between the temperament types and types of the higher nervous activity			
A choleric person	Strong	Unbalanced	Active
A sanguine person	Strong	Balanced	Active
A phlegmatic person	Strong	Balanced	Inactive
A melancholic person	Weak	Unbalanced	Inert

17.3. Basic Temperament Characteristics

Temperament as a dynamic description of personality psychic activity has certain characteristics, which can influence its displays positively or negatively. One can distinguish such basic temperament characteristics, as sensitivity, reactivity, plasticity, rigidity, resistance, extroversion and introversion.

Sensitivity is the degree of being sensitive to phenomena of the reality, which is typical of personality. Some people react to unsatisfied needs, conflicts, social events wildly suffering, and others take them quietly, with indifference. Famous Soviet psychologist B. Anan'ev considers sensitivity to be connected with reference reflex activity and to be part of the temperament structure. There are reasons to believe that there exist not only separate types of sensitivity as potential characteristics separate analyzers, but also for a certain person there is the sensitivity method and it is the characteristic of human sensor organization in the whole. Sensitivity (as B. Anan'ev writes) is a comparatively steady personality peculiarity, where a type of human nervous system is expressed, and which plays its role in human capacities for different types of activity.

Reactivity is the personality peculiarities to reaction on the irritants. It is shown in the answer tempo, power and form, and most vividly in the emotional impressionability, and it is reflected on the personality attitude towards the reality and oneself. Wild reactions caused by successes or failures in any activity have an effect upon different temperament peculiarities. Reactivity as temperament peculiarity is distinctly shown in psychic traumas – in reactive depression (depression, motor and speech hindering), in affect-shocked reactions (reactions catastrophes, failures, panic), which become apparent in a disorderly motor activity, or in absolute hindering and stupor.

Plasticity is shown in quick adaptation to the changable circumstances. Due to plasticity certain sides of psychic activity are reformed or compensated due to plasticity of higher nervous activity. Weakness, lack of balance or insufficient motor type of nervous system under the proper life conditions and education can get positive qualities.

Rigidity is a peculiarity, opposite to plasticity, complication or inability to adopt while executing tasks, depending on circumstances. In

cognitive activity a rigidity is shown in the slow change of ideas about life and activity; in emotional life – in sluggish and immobile senses. In one's behaviour it becomes apparent in inflexibility, inertness of behaviour motives and moral-ethical acts in the case of their absolute inexpediency.

Resistance is the ability degree to succeed in not yielding to negative or inauspicious circumstances. This peculiarity is shown in stressful situations, in the case of considerable efforts in activity vividly. One people are capable of resisting the most complicated conditions of activity or circumstances, appeared unexpectedly (accidents, conflicts, antisocial bravado), but in the cases of emergency others get flustered, give in when hard pressed, become incapable to continue their work, though under the usual conditions it is not typical of them despite tiredness, complicated conditions of work.

Extroversion and **introversion** are personality attitude of reaction and activity towards outside, and other people (extroverts) or towards oneself, one's inner states, experiences, ideas (introverts). Extroversion and introversion as temperament properties are considered to be the display of dynamic, but not conceptual personality sides. Force and mobility of the nervous processes, and, in connection with it, impulsiveness behaviour flexibility, initiativeness are typical of extroverts. Introvert type is characterized by weakness and inertness of the nervous processes, reticence inclination to self-examination, and that is why this type have complications in the process of social adaptating.

17.4. Physiological Basis of Temperament

I. Pavlov's theory about the types of the nervous system and higher nervous activity influenced scientific understanding of temperament greatly. The combination of different degree of power, balance and liveliness of excitation and hindering, processes formed a basis for the distinguishing four basic types of the nervous system.

1. **Active type** is strong, balanced, but lively.
2. **Quiet, but inactive type** is strong, balanced, but inert.
3. **Excitable, unrestrained type** is strong, unbalanced with dominance of excitation over hindering
4. **Weak type.**

Pavlov finds this typology of nervous system to be connected with temperament. Using temperament terminology of Hippocrates, he writes, that a **sanguine person** is an ardent, balanced, productive type, but only when he has a lot of interesting to do. A **phlegmatic person** is balanced, persistent, industrious worker. A **choleric person** is a pugnacious type, captious vividly, he gets excited easily and quickly. A **melancholic person** is a hindering type of the nervous system, for the representatives of which each phenomenon in the life becomes as hindering agent. He is distrustful, everything is bad, and dangerous for this type.

I. Pavlov considers choleric and melancholic temperaments as extreme ones. According to his theory, inauspicious situations and life conditions can cause psychopathological displays – neurasthenia (of a choleric type) and hysteria (of a melancholic person). In I.Pavlov's opinion the golden mean is sanguinic and phlegmatic temperaments. Their balance is a display of health, really strong and productive nervous system.

However, it is insufficiently to explain the temperament nature from the positions of the nervous system typological peculiarities. The central nervous system functions in intercommunication with the endocrine and humoral systems of the organism. Hypofunction of the thyroid gland, for example, causes weakness, motions monotony, and hyperfunction of the cerebral appendix brings on reducing impulsiveness, and motor reaction. The activity of the sexual glands such as pubescence, aging, castration, influences functions of the organism, including the temperament peculiarities. Behaviour of teenagers, their non-motivated actions – are the dynamic displays of temperament under the influence of pubescence.

17.5. Role of Temperament in Human Activity

Work, educational and playing activities have the requirements not only to knowledge and the level of personality mental, emotional and volitional development, but to the typological peculiarities of the nervous system, hence, to human temperament.

Depending on the nature and conditions of activity the strength, balance and mobility of the personality nervous system (temperament) are shown differently. They can play positive or negative role. When a considerable capacity for work and endurance are necessary, a strong type of the nervous system displays itself better, and when sympathy,

gentleness are essential, a weak type of the nervous system is shown itself better.

A choleric person's lack of balance makes harm, where self-control and patience are needed. Extremely slow tempo of motions, monotonous speech of a phlegmatic person does not promote to success in activity which requires considerable mobility and the speed of the influence on other people. Excitability weakness and hindering of actions, which are typical of a melancholic person, cause timidity, indecision, interfere establishing the contacts with others. A sanguinic person's inclination to novelty boredom, caused by monotonous, but very important activity, reduces activity, permanently brings on aspiration for something new and fashionable.

The results of researches have shown, that on the basis of identical properties of the higher nervous activity different dynamic peculiarities of personality can be formed: the weak type of the nervous activity gets actions power, unbalanced one gets balance, inert one – liveliness, mobility. Such changes appear under the influence of the content side of activity. With the help of training one can achieve a certain level of hindering, weakness, inertness or uncontrolled motions. But formed in such a way positive actions as force, balance and mobility do not annihilate inborn weakness, lack of balance or inertness of the nervous activity. Under the extreme conditions the natural peculiarities (which are typical of human being) of nervous system type begin acting, such as weakness, hindering, excitability, which are shown in confusion, the state of stupor helplessness, excessive excitability and self-control loss.

The activity style of every human being depends on the type of the higher nervous activity largely, which is part of its temperament structure. Hence, in the professional orientation and training of young people for work it is necessary to take into one's account the temperament peculiarities.

Theme Key Notions

☛ Temperament, type of the higher nervous activity, strength of the nervous processes, mobility of the nervous processes, balance of the nervous processes, extroversion, introversion, sensetivity, reactivity, plasticity, rigidity, resistance.

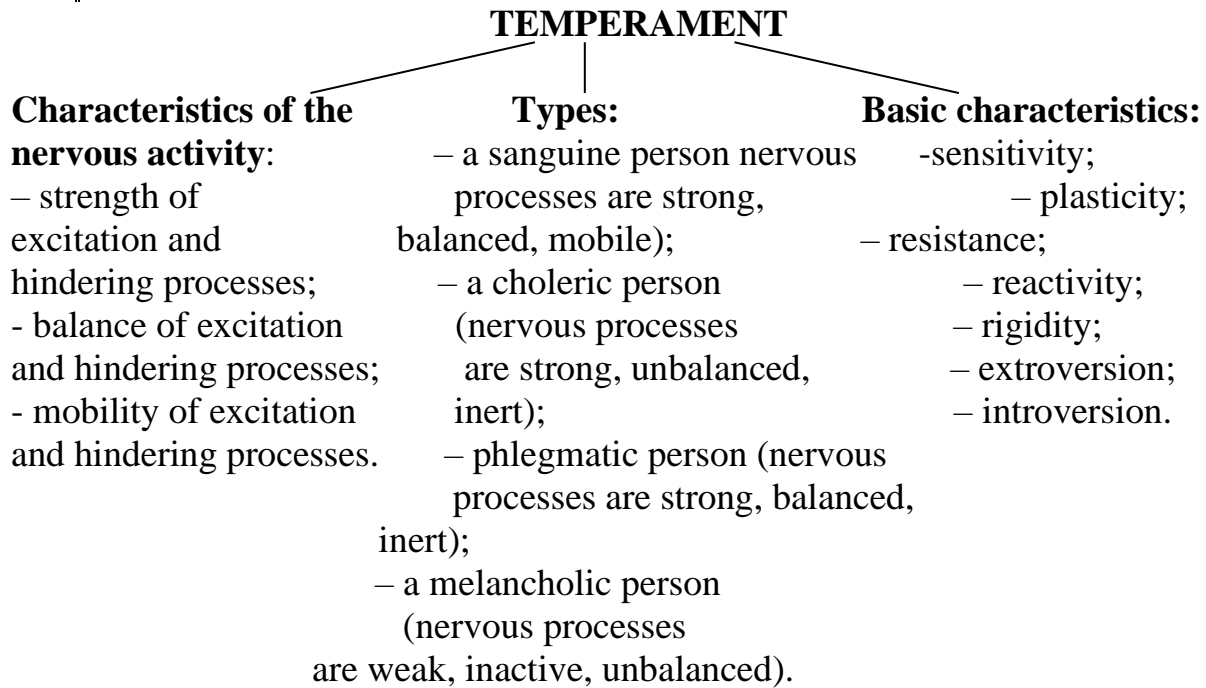
Formalized Structure of the Theme Contents

Basic components of temperament:

general psychic activity, reactivity, emotionality.

Physiological basis of temperament:

type of the higher nervous activity.



Questions for Individual Work

1. What characteristics of the psychic activity process are typical of temperament?
2. What characteristics combinations of the higher nervous activity did I.Pavlov make to be basic in his temperament description?
3. What are the peculiarities of the behaviour of extrovert?
4. What are the peculiarities of the behaviour of introvert?
5. What is the role of temperament in the processes of personality character formation?
6. In what way does temperament influence the process of character traits forming?
7. What role does knowledge of human temperament in the system of «subject-subject» relations play in the specialist activity?
8. In what way can doctor and teacher take into their account the peculiarities of human temperament in their activity?

Alternative Tests Tasks for Self-Control

1. Are the notions “type of the higher nervous activity” and “temperament” identical? Give reasons.
2. Can one affirm, that the temperament characteristics are of inborn nature?
3. Does dynamics of human behaviour always characterize one’s temperament adequately?
4. Is personality extroversion or introversion natural display of the certain temperament type?
5. Can human temperament undergo the essential changes during one’s life?
6. Can one affirm, that temperament influences forming of the human character traits immediately?
7. In what way one can influence temperament forming process?

Task and Problem-Solving Situations

1. Can one make a conclusion about personality temperament, taking into account vivid, but episodic displays of someone’s behaviour? Which life situations does temperament display more deep in?
2. Depending on human states one’s speech tempo and emotional excitability can change. Do these peculiarities always depend on temperament? Define the peculiarities, which are dependent on temperament and which are caused by motivated factors. How can it be explained?
3. Can individual-psychological peculiarities of human being shown in babyhood be always kept in his/her further? How can it be explained?
4. Which combinations of temperament types are met more often? How can it be explained from the psychological point of view?

Used and Suggested Literature

1. Загальна психологія: Підр. Для студентів вищ. навч. закладів /За загальн. ред. акад. С.Д.Максименка. – К.: Форум, 2002.
2. Максименко С.Д. Общая психология. – М.: Рефл-бук, К.: Ваклер, 2001.
3. Психологія /За ред. Г.С. Костюка. К.: Радянська школа, 1968.
4. Sergey Maksymenko. General Psychology. – Vinnytsya, 2005.

Part 18

ABILITIES

18.1. Concept of Abilities

Abilities are essential human qualities. Abilities and activity, especially labour, are connected with each other organically. Human abilities emerged and developed in the labour process. They are shown in activity and labour. Abilities as driving force, have played a leading role in the development of science and engineering, creation of material and spiritual riches, social progress.

Under the labour and social human life development human abilities developed, changed their nature and structure. General and special abilities were developed as well.

Abilities are original human qualities, his intellect peculiarities, which become apparent in learning, labour, especially scientific and other activity and are the necessary condition of its success.

Every man is able to realize a certain type of activity. Without activity this human quality is impossible to be recognized, described and characterized. That is why we form our opinion about human abilities on the basis of the work and activity results.

While characterizing human abilities, we make our deductions about them under the influence of demands, made on human being by learning, production, scientific and any other activity. We evaluate a person as an active figure, a creator of material and spiritual values. This description includes pupil's evaluation, who is preparing for future labour, creative activity. While learning human achievements in a certain branch of knowledge.

Success of actions execution depends, indisputably, not only on abilities, but also on other qualities. For example, two friends decided to enter the institute. One of them passed exams, but the other – failed. Can it testify that one of them is more clever? It is impossible to answer this question, until it is ascertain the time of their preparation particularly, how much time does each of them spent on preparation. So, abilities are not determined by the success factor of getting knowledge.

Every human ability is a complex property, internal possibility to meet the demands of the certain activity, and which is based on the

number of other qualities and, first of all human life experience, obtained knowledge, skills and habits belong to them.

It is known, that the richer life experience is, it is the easier for human being to achieve any result in activity. Experienced, person, who is good at scientific knowledge can realize the tasks wider and deeper, and can realize them more successfully, than a human being, who does not have such knowledge.

An essential role in this case is played not only by the very good knowledge, but the ability to use it for solving some new educational, scientific, practical, and other tasks. That is why it is impossible to consider human abilities as qualities, that exist not depending on one's knowledge, skills and habits.

Human abilities are based on available knowledge, skills and habits on the systems of the temporal nervous connections, which are basic for them. They are formed and developed in the process of obtaining new knowledge, skills and habits.

However, it does not mean, that human abilities are only one's knowledge and skills. If it were so, we could make conclusion about human abilities while evaluating one pupil's answer at the blackboard or successfully executed work. But, in practice, according to the evidence of special psychological researches, some people who couldn't perform certain activity as a result of specific training, begin acquiring skills and habits and even achieve the high level of mastery.

Hence, abilities are not identical with skills and habits.

Abilities are such human psychological qualities which influence obtaining knowledge, skills and habits, but which are not by themselves come to knowledge, skills and habits.

As to knowledge, skills and habits abilities appear as a certain possibility. Like a corn thrown into the soil is not an ear yet, and only the possibility for its development exists depending on the soil structure, composition, and moisture, the weather, in such a way human abilities are only possibility for obtaining knowledge, skills and habits. And the possibilities of their realization depend on many factors: forms and methods of teaching and education, domestic conditions and so on.

Psychology, disagreeing with the identity of abilities and important activity components – knowledge skills and habits, their unity as well.

Only in the process of special teaching it can be defined, if human being possesses abilities to perform a certain kind of activity or not.

Teacher's mistake is an evaluation of incapable pupils, who do not have sufficient knowledge.

Ignoring of the differentiation between abilities and knowledge at the certain moment often caused rise mistakes in possibilities evaluation. For instance, once

M. Gogol', a genius writer, was once evaluated as a man with mediocre abilities. Young V. Surikov didn't become the student of the Academy of Arts because he was evaluated as a person of mediocre artistic abilities. The reason was still imperfect drawings. During three months V. Surikov aquired drawing technique, necessary skills and became a student of the Academy of Arts consequently.

So, complex interconnection exists between abilities and knowledge. Abilities depend on knowledge, but abilities determine the speed and quality of knowledge aquiring. As knowledge, skills and habits: abilities become apparent not in their presence quicker, but in of their aquiring dynamic, ie in the way a person acquires knowledge quickly, profoundly, easily and soundly. Consiquently, one can determine the term "abilities" more exactly.

Abilities are personality individual psychological peculiarities, which are the condition of certain activity successful realization and determine distinctions in aquiring knowledge, skills and habits necessary for it.

18.2. Abilities Structure

Each ability (for example, the abilities to drawing, music, engineering, science) is a human synthetic quality, which covers the number of **general and individual qualities** in their certain combination.

The structure of the synthetic totality of psychic qualities, which are shown as abilities, is determined by the concrete activity and differs in types of activity. To affirm that any quality is considered to be an «abilities equivalent» is not right.

While studying a concrete psychological abilities description, one can distinguish their more general (that correspond not to one, but to many types of activity) and special (that are typical of more narrow requirements of certain activity) qualities, which shouldn't be contrasted.

Individual psychological qualities, which characterize belonging of human being to one of three types of people, defined by I. Pavlov as «**artistic**», «**mental**» and «**middle**», which are shown as abilities under the activity conditions belong to personality general **properties**. This typology is connected with relative dominance of the first or second signal system. The relative dominance of the first signal system in psychic human activity characterizes «**artistic**» type, the second signal system – «**mental**». The balance of both systems gives us a «**middle**» type.

Brightness of images, live impressionability, emotionality are typical of «artistic» type. Such people can acquire artist, sculptor, musician and actor activities easier.

The ability to use notions, mathematical relationships with abstract material is typical of «**the mental**» type.

However, it must be mentioned, that even the presence of distribution the «artistic» and «mental» types does not mean weakness of the mental activity of «artistic» type or, on the contrary, weakness of the concrete impressions of «mental» types. The question is about relative dominance.

As it is known, the second signal system is the leading one, ie it prevails over the first signal system absolutely.

Human individual properties, which appearing in a certain combination, and are included the structure of abilities, are the following:

- **attentiveness**, the ability to concentrate on task, activity object and steadily (the more complicated is the task, the greater concentration it needs) protractedly;
- **sensitivity** to the external impressions, observation.

For instance, feeling of colours, light relations, hues; the ability to catch and depict proportions play an important role in the ability for drawing.

In the structure of musical abilities the ear for music which includes, first of all, sensitivity to sound-high attitudes is a necessary component. Psychologist B. Teplov, who studied musical abilities purposely, confirms, that the important constituents of musical abilities are the following:

- sensitivity to the rhythm;
- the ear for melodiousness (that displays in special melody perception);

- sensitivity to intonation exactness;
- the ear for harmony (that is shown in perception of the chords).

Each ability covers the certain memory qualities: the speed, degree, memorizing completeness and reproduction.

Human ability to think and reveal unknown relations and connections plays especially important role in abilities structure. In this connection such thinking qualities, as the **width, depth, quality, sequence, independence, criticism** and **flexibility** have the important meaning. For example, V. Krutetsky, while studying schoolboys' capacities for Mathematics, discovered an important role of such components as:

- to generalize mathematical material quickly and widely (generalization without special training);
- to reduce, to shorten a reasoning process while solving mathematical tasks quickly;
- to switch from direct to back thought cause while studying mathematical material quickly.

Qualities of thinking and speech (which is closely connected with it) take an important place in the abilities structure.

Abilities include not only mental, but emotional properties as well. Musical abilities are based on the emotional reaction, musical impression (B. Teplov) in the capacities for scientific activity an important role is also played by the emotions.

I. Pavlov said: «Be passionate in your work and searching».

There exists a close interconnection between abilities and volitional qualities: initiative, determination, persistency, self-control, ability to overcome difficulties.

P. Chaykovsky writes: «The whole secret is, that I work daily and exactly. As for this I have a strong will over myself, and when there is no any special inspiration for work, I can always take a grip of myself to overcome uninclination and to be involved into activity».

So, it is impossible to consider ability as property. This is original and relatively steady combination of human psychic properties, that cause a possibility of successful execution of a certain activity. Insufficient development of separate properties can be compensated. For example, people, who can not see or hear, can compensate it by a raised palpable, olfactory, vibration sensitivity.

18.3. Abilities Types

Abilities are shown in all the spheres of human activity. They are subdivided into certain types by activity and its character. So, the abilities for teaching, drawing, music, sport, science, organizing, artistic, designing, pedagogic activities are distinguished.

In all the spheres of activity abilities have something in common, and differ at the same time. Abilities can be general and special.

General abilities become apparent in all the sorts of activity: teaching, labour, playing, mental activity and so on. Thanks to general abilities people can obtain different kinds of activity, start new kind of activity successfully easily. Pupils' general abilities display in successful studying of different disciplines.

Special abilities are shown in special kinds of activities. The presence of certain properties is the basis of special abilities. So, imagination is important sign of literary abilities, the absolute ear for music is the basis of musical abilities.

There were a lot of famous people, whose activities were connected with the level of general and special abilities development (M. Lomonosov, T. Shevchenko, M. Borodin).

People's abilities are the product of their socio-historical development. They appear and are developed in the process of historical development and life of the people under the influence of its demands.

Human abilities became apparent in the process of labour. Abilities are the condition and product of activity.

A certain abilities development level corresponds each humanity historical development stage.

In the activity process people acquire some knowledge, skills and habits necessary for abilities development. Under the conditions of scientific and technical progress abilities can be changed and new varieties of abilities can appear.

The process of forming abilities depends on the cultural society standard. Labour division can cause abilities differentiation and specialization. Personality abilities development depends completely on the demand, which labour division and formed conditions of education influence in their turn it.

18.4. Individual Distinctions of People's Abilities and Their Natural Preconditions

Observation learning of people's activity shows, that there are certain distinctions in their abilities. Abilities are common to all mankind properties. Man is able to do that, which the most organized animal can not do. At the same time in abilities individual originality of every human being is shown.

The presence of the individual distinctions of human abilities is undeniable fact. They are shown in human special individual abilities and the degree these ability display. The quality ability description, the level of its development typical of person, can be shown in this case. So, one man has aptitudes for music, the second one has abilities for engineering, the third one – for scientific activity, the fourth one – for drawing and so on.

Within one ability people can display different level of abilities: low, medium and high. What are such distinctions caused by? They are not inborn, though sometimes we hear, for example, that «this child is able to do something» or «not able to do something by nature».

As well as all other individual psychological peculiarities, abilities are not given to human being in ready appearance as something typical of him by nature. Abilities and individual peculiarities of every human being are the result of one's development. It is necessary to take into our account this point of view, because there existed different interpretations of hereditary character of people's abilities.

Long ago Platon found abilities to be inborn. According to his opinion, all knowledge, which is used by human being, is just the recollections about being in the ideal world «of absolute knowledge». R. Dekart's theory about innateness of abilities, which is known as the theory about inborn ideas, exists as well.

According to F. Gall's opinion, the level of psychic qualities development is connected with the size of the brain separate parts, and if skull bonesfully correspond with curves and hollows in the brain, then human abilities can be defined according to human skull. F. Gall composed even so-called **phrenological map** (from the Greek word "phren" which means "intellect"), where a skull surface was divided into 27 parts, and each of these parts corresponded to certain psychic abilities.

Hypothesis about the depending of abilities on the brain mass turned out to be false. It is known, that the brain mass of adult is approximately 1400 1600 gr.

I. Turgenev's brain weighed 2012 gr and A. France's – 1017 gr. But both of them were famous personalities with the high level of abilities development.

Hypothesis about the connection of inclinations with the microstructure of the brain and senseorgans, depending on which the functioning of the cells takes place, and also with the differential peculiarities of the nervous processes (force, balance, mobility of the nervous system, and also its type) appeared to be more appropriate. Heredity of the social life conditions contributes to abilities development. For instance, I. Bach's family had 57 musicians, and 20 became famous. Pedologs' theory about the fatal conditionality of inborn abilities was once hardly criticized. Disclaiming fatal innateness of abilities, modern psychologists do not reject inborn differential peculiarities of the brain, by nature, and they can become a precondition of successful execution of any activity.

Inborn preconditions to abilities development are called inclinations. Inclinations are natural abilities of possibilities development. The brain structure of cortex of its big hemispheres and its functional properties serve as a material basis. These distinctions are conditioned not only by hereditary nature of the organism, but also by uterine and off-uterine development.

So, inclinations are not abilities, but only preconditions for abilities development. All people have the inclinations to master the language, but not all of them can speak the same amount of languages and their native language level is not the same, and animal, in its turn, having no inclinations to language communication, never will speak any language.

Natural inclinations to abilities development are not identical with different people. This can course a direction of abilities development, and also in-time abilities and inclinations, revealing and the presence of certain condition for their realization.

Inclination don not play a main role in abilities development, but the life conditions, teaching of people, and their education and upbringing do play it. There is not simple, but significant link between abilities and inclinations. Inclinations are significant. The process of

abilities development on the basis of inclinations, depends not on these inclinations, but on the life conditions, education and teaching. Different abilities can be developed on the basis of one and the same inclinations.

Not all inborn inclinations are transformed into abilities. Inclinations, which do not find the suitable conditions for changing into abilities, remain undeveloped. Psychic properties nature, which are the parts of each ability doesn't depend on inclinations. These properties are formed in individual interaction with outer world.

One of the presence indexes of natural qualities, which are favourable for abilities development is their early revealing. The biographic data of famous personalities testify, for example, about the early revealing of their abilities for literature, poetry, music. M. Rymisky-Korsakov's aptitude for music was revealed when he was already two-years old, V. Mozart's – at the age of three years old, A. Pushkin wrote his first work when he was nine, M. Lermontov – at the age of ten, Lesya Ukrajinca – wrote her first poem when she was thirteen.

Conditions sometimes do not contribute to early abilities revealing. But under the appearance of such conditions abilities can be revealed later. S. Aksakov published his first book when he was fifty-six. I. Krylov published his first fable at the age of forty. The process of acquiring knowledge, skills and habits play an important role in the abilities development. Individual peoples abilities of high degree in one or more spheres of activity are called **talent**, and such people are called gifted or talented. Such abilities are shown in creative activity, creative solving of complicated practical theoretical and artistic tasks.

The highest abilities development stage, which becomes apparent in creative activity, and the results of which have a historical meaning in the life of society, in science, literature or art development are considered to be **genius**. Genius differs from talent by the social meaningfulness of the tasks, which are solved by human being. Genius expresses the most up-to-date tendencies of the time.

Individual peculiarities of abilities are shown in the versatility or unilaterality of their development. Various abilities were typical of M. Lomonosov, D. Mendeleev, M. Borodin, T. Shevchenko and others.

Individual peculiarities of human abilities are the result of one's development. That is why abilities development demand certain social conditions and personality activity in a certain sphere.

Work plays a big role in the process of abilities development. P. Chaykovsky writes, «that inspiration dislikes...lazy people». T. Edison, who worked for 16 hours a day, while answering the question about the reason of his genius stressed, that it consisted of 99 % of sweat, and only 1% of talent.

Theme Key Notions

➔ **Abilities, abilities structure, general abilities, special abilities, inclinations, endowments, talent, genius.**

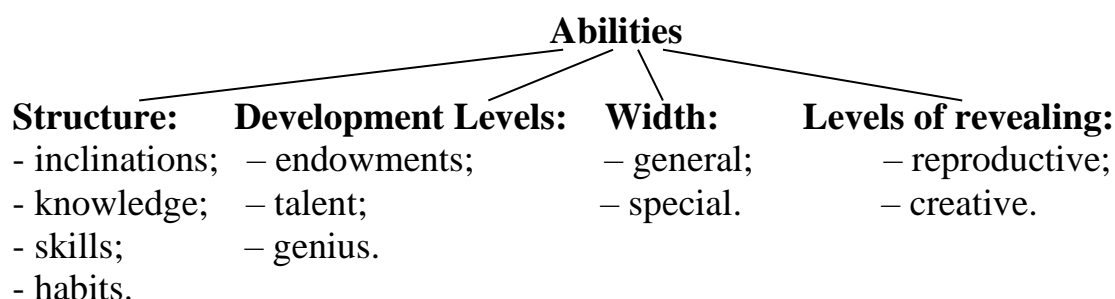
Formalized Structure of the Theme Contents

Inclinations are anatomic-physiological basis of abilities.

Conditions of inclinations realization as abilities:

activity, active interaction with surrounding reality, education and upbringing.

Abilities are personality potential possibilities realized in activity



Questions for Individual Work

1. What are personality abilities shown in?
2. Which are the principal components of abilities?
3. In what way are abilities and inclinations connected?
4. What human psychic properties do contribute to abilities development?
5. In what way are qualitative distinctions of human abilities shown?
6. What is the abilities index?
7. What causes personality abilities development?
8. What is a decisive condition of abilities development ?

Alternative Test Tasks for Self-Control

1. Do you agree with the statement, that activity execution speed is the abilities index?
2. Do you agree with the statement, that the abilities index is the tempo of new kind activity acquiring?
3. Can one state, that inclinations always determine the high level of abilities development?
4. Do you consider inclination to be the obligatory precondition of the abilities development?
5. Can it be asserted, that the distinctions between human abilities have mainly quantitative nature?
6. Do you agree that activity is a decisive condition for the abilities development?
7. Are abilities of hereditary nature?
8. Do you think that there are certain human properties, without which it is impossible to achieve a high development of special abilities?

Task and Problem-Solving Situations

1. Prove that abilities, as personality property, are the product of social development?
2. Why is it impossible to consider a personality high level of knowledge, skills and habits development as a major index of one's abilities?
3. What personality psychic qualities are the obligatory condition of successful abilities development? Reveal and substantiate them.
4. Can factual success in certain kind of activity be considered as a display of the abilities for it? Why?
5. Prove incorrectness of assertion about abilities of innate nature.
6. How can one explain the mistakes in evaluating the abilities for certain activity varieties at the early stages of personality development, as, for example, A.Einstein and A.Klero's abilities for mathematics, V.Surikov's abilities for painting ?
7. It often happens in life when people, who have good inclinations to development of certain abilities, did not realize them. What reasons can appear more often as obstacles in the process of their development?

8. What does allow human being with the worse abilities for certain activity to carry out it better, than human being with better abilities? What personality psychic qualities make it possible ?

9. Is the high level of special abilities development in intellectual sphere against the low level of general abilities development possible? What is the link between special and general abilities?

Used and Suggested Literature

1. Загальна психологія: Підруч. для студентів вищ. навч. заклад./ Під загальн. ред. акад. С.Д.Максименка. К.: Форум, 2002.

2. Максименко С.Д. Общая психология. М.: Рефл-бук, Ваклер, 2001.

3. Максименко С.Д. Развитие психики в онтогенезі. Моделирование психологических новообразований: генетический аспект. – К.: Форум. – Т.2, 2002.

4. Максименко С.Д. Развитие психики в онтогенезі: Теоретико-методологические проблемы генетической психологии. – К.: Форум. Т.1, 2002.

5. Психология / За ред. Г.С.Костюка. – К.: Радянська школа, 1968.

6. Чудновский В.Э. Воспитание способностей формирование личности. М., 1986.

7. Sergey Maksymenko. General Psychology. – Vinnytsya, 2005.

Part 19

CHARACTER

19.1. Concept of the Character

Special peculiarities, which influence human activity and behaviour, are typical of every human being. Some people are hardworking, disciplined, modest, honest, daring, collectivists, but the others are lazy, boastful, unorganized, ambitious, self-confident, dishonest, selfish, cowardly. These and the similar peculiarities to them are shown so distinctly and permanently, that can form a personality typical individual style of one's social behaviour. Such personality psychological peculiarities are called **character traits**. These traits characterize both the goals, a person is striving for, and the methods of achieving these goals. To know them is important because personality is characterized not only by everything a person does but the way an individual does it. The whole complex of such steady traits is called personality character.

So, character is a complex of steady individual psychological qualities, which become apparent in person's activity and social behaviour, in one's attitude towards the collective, other people, work, surrounding reality and also towards oneself.

The term character (from the Greek word "character" which means «trait», «sign», «peculiarities»). For the first time it was used to mark human properties by Aristotel's friend Theophrastus in his work "Characters", who described 31 types of human characters from the point of view of moralists: particularly he described boastful, garrulous, insincere, tedious in the talk, smooth-tongued and other people. Later philosophers and psychologists used the peculiarities of human body constitution and body functions or moral and ethnic peculiarities of people's social relations, their mental abilities and experience as the basis of human characters explanations and classification.

Character is mostly connected with temperament, which, as it is known, determines its external dynamic form expression.

Human character can be comprehended only in individual's social activity and relations. One can judge about human character according to the way an individual thinks and behaves under the different

circumstances, taking into account one's opinion about others and about oneself manners typical of this individual.

It is very important to know human character. It gives a possibility to foresee human behaviour under the certain circumstances, what is to be expected of this particular person, and the way of carrying out given tasks. Fiction gives fine descriptions of peoples behaviour with different characters. History knows a lot of political, public and military figures, who due to the force of their character positive peculiarities, have contributed to progress of the mankind, and people with the negative character traits or flabby one's who influenced the humanity negatively, and as a result it went into decline.

19.2. Character Structure

Character as one of the essential peculiarities of personality psychic type is the integral formation which characterizes human "I" as a single whole. Understanding of character as the unity of human peculiarities does not exclude singling out separate elements with the purpose of more deep cognizing of its sense. I. Pavlov, not objecting to character integrity, defended the necessity of separation of its structural components. If you analyse personality, he writes you have to say, that according to the certain peculiarities one can be characterized as calm, composed, dreamy, tender, etc. But if one imagines some separately parts, without their interconnection, in this case it would be impossible to determine human character. The system of traits must be taken into one's account and in this very system it is necessary to analyse the character traits are to be put in the fore front and the others which hardly having appeared, disappear.

To define **the character structure** means to single out the leading components in it without which it is impossible to imagine character integrity in general.

In the character structure it is necessary to distinguish its nature and form. **Character nature** is determined by social conditions and of life education. Human actions are always motivated by something or somebody, and they are directed, at something or somebody. But according to their **form** intentions and aspirations are realized differently. This depends on the circumstances, situations, under which a person is, and on the peculiarities of one's character mostly from individual's temperament.

One can single out the following **components** of character structure:

- attitude;
- convictions;
- mental traits;
- emotions;
- will;
- temperament;
- completeness;
- integrity;
- determination;
- strength.

Attitude is the leading component in the personality character structure. It is shown in selective positive or negative estimate attitude towards acts, people's activity, and itself.

Convictions are knowledge, ideas, views which are human behaviour motives. Convictions become the traits of individual's character and determine one's attitude towards reality, actions and behaviour. Convictions become apparent in adherence to principle, incorruptibility, truthfulness and exactingness to oneself. Human being with strong convictions is capable to make maximum efforts for achieving the goal, and to give oneself's life, when necessary, for the sake of social activity. Unprincipled peoples, careerists don't have such inhesent peculiarities of character.

Mental character traits are shown in reasonableness, observation, moderation. Observation and reasonableness contribute to fast orientation under the circumstances. Unreasonable people start any business easily, and act under the influence of the first impulse. Mental inertness, on the contrary, displays in passivity, indifference, slowness in making decisions or in superficial approach to businesses without taking into one's account their importance.

Emotions become the basis for such character traits as impulsiveness, quick temper, excessive or artificial sympathy, brutality, indifference, insensibility to others' sufferings and inability to sympathize. Practical distinguishing, aesthetic, Moral, aesthetic, cognitive, pragmatic senses, thanks to the degree of emotsons expression can be shown in exaltation, or in modesafe quiet attitude towards the phenomena of nature, art and people's acts.

Will in the character structure conditions its strength. So, will, as it is considered, is a central component of formed character. Strong will makes character independent, steady, courageous, capable to arrive a set goal. Weak-willed people are people of weak will power. Even having good knowledge and experience they are incapable of standing his own ground, behaving themselves indecisively and timidly.

In the character structure temperament is a dynamic side of its displaying. Character is a unity of typological and aquired life experience. The peculiarities of life conditions, teaching and education form individual attitude towards phenomena of surrounding reality, but the form of this displaying and dynamics of personality reactions are determined by one's temperament. People of different temperament display one and the same convictions, views, knowledge, originally as for its strength, balance and actions mobility.

While pointing out the character structural components one should remember that character is complex of all structural components. Each character structural component (attitude, intellect, emotions, will, temperament) is shown integrally, to some extent, in each character trait as well as in character on the whole. That is why it is impossible to say about volitional, intellectual, emotional, character traits. Character as an original steady integral personality attitude towards the different reality aspects can be steady or unsteady, integral, definite or inexpressive.

Character completeness is a comprehensive development of its basic structural components: mental, moral, emotional and volitional. Actions reasonableness of such individual is always co-ordinated with the emotional balance and self-control.

The internal unity of character traits determines its **integrity**. It displays in the unity of one's words and deeds or in its absence in one's actions. The difference in views, lack of purposefulness, accidental displaying of character traits and their dependence on the situation, but not on personality purposes.

Character definiteness is of especially importance . Personality firmness and independence in one's aspirations and convictions, in struggle for achieving set goals testify to the definiteness of individual character. Character definiteness as activity subject is reflected on adherence to principle and conscientiousness of actions irrespective of commission importance. One can rely up on strong-willed person while

charging him with important tasks. He'll solve the task according to its goal, nature and execution methods. It is difficult to say something about people with indeterminate character whether they are good or not. These people are unprincipled, people without any clear positions in individual labour activity and political life.

Character strength is shown in energetic actions, persistence and activity, while solving the tasks, struggle for going through any business, despite any obstacles. Such peoples are not fear of difficulties, can overcome them. They are the innovators in activity enthusiasts, and initiators.

Real man, active figure, activist, collectivist patriot, humanist characterizes by the unity of all the components of individuals character. However, character unity does not exclude that in the different situations one and the same person can have different displaying of its components and character traits. At the same time man can be indulgent and too exacting, unshakeable and complaint, generous and mean. Incidentally character components unity remains and displays precisely in it.

19.3. Basic Traits of Typical Character

Each individual has his own character. His character traits are reflected in his activity, connections, action methods in the broad sense of their understanding – in family, collective, in production management, and in governing of the state. Typical and individual character traits exist in unity. Typical traits create the basis for individual displays of character traits, and displaying of the traits not typical of the majority of the certain social group character traits causes objection and blame, censure.

The peculiarities of typical character are shown in positive or negative attitude towards work, other people, oneself, objects and phenomena of reality.

Attitude towards work is one of the most essential human character traits. It becomes apparent in respect to work, diligence, or in neglect to work and collaborators. Punctuality, conscientiousness, discipline, good organization, are the important traits of the attitude towards work.

The attitude towards other people arises in contacts between people and is caused by social life conditions, which are formed historically and revealed up in the collective. Considerable variety of

their nature and form displaying; dependence on people's cultural development level and individual's spiritual riches are typical of character traits in which the attitude towards other people displays. The attitude towards other people is of appreciation nature, in which an intellectual appraisal depends on emotional attitude towards character traits, which are shown in social contacts. Appraisal attitude towards people is shown in different nature of character traits and different form of their displaying. Approval and blame, support and objection can be expressed in polite, tactful, well-disposed form or formally in the form of flattering, and even brutally, boorishly, ironically, sarcastically, offensively.

The attitude towards others is shown depending circumstances and evaluation of acts character and in positive and negative character traits. **The positive character traits** of cultural human are justice, obligation, generosity, benevolence, honesty, adherence to principle. Humanistic moral qualities of people, ideological convictions, progressive aspirations are the basis of these traits.

Estrangement, reticence, envy, miserliness, disrespect to others, boastfulness, arrogance, inclination to unfounded sarcasm and mockery; inclination to mere squabbles, objection of truth, pettiness, misanthropy belong to **negative character traits**. Negative character traits make much harm for positive communication, their aspirations for joint struggle with injustice and communication like in their work activity.

Having one's own opinion about activity and behaviour, human being forms his own character traits under the influence of analogy or antithesis. **The attitude towards oneself**, positive or negative, depends on self-consciousness development level, on the ability to estimate oneself. Such character distinguishing characteristics, as modesty, feeling of self-respect, self-discipline, responsibility, an inclination to give one's efforts to the collective, and state testify to high level of personality consciousness development.

At the same time negative traits are typical of some people: such as immodesty, boastfulness, careerism, arrogance, conceit so on.

According to its intensity typical character traits are shown differently, individually. Character traits of some people display so brightly and originally, that its makes them original. Acuteness of such peculiarities becomes apparent spontaneously, as soon as human being

gets under the adequate circumstances. Such conditions provoke displaying of very noticeable personality reaction. The extreme intensity of certain human traits is called **accentuation**. Though accentuation of some personality character distinguish characteristics exceed the bounds of usual one, by acuteness and originality of its displaying it can not be attributed to pathological ones. However, complicated conditions, which cause personality character traits accentuation, the frequency of their displaying can make happen the neurotic hysterical and other pathologic reactions.

Accentuation of character traits displays only under the influence of certain conditions. Under the influence of other conditions people with such elements in one's personality act quietly, without any effort.

Accentuation of character traits is developed under the certain social life conditions. It is influenced by the social interests attitude and specific character of the contacts in the collective, but, as researches testify that the principle traits are inborn individual traits, which create the basis for accentuation displaying under the influence proper social conditions.

Let's consider the most typical cases of accentuation displaying:

Sticking in the state of excitement which causes obstinacy, distrust, intolerance towards objections in discussions. Such people display responsibility and reasonableness while considering problems.

Pedantry makes happen in extreme, not justified formalism while solving tasks in observing the letter of the law, though it can harm the cause and in ideas like «something may happen» type.

Demonstrative characters display ambition, unrestrained temper, they wiggle out of a situation where it is necessary to find the way out. It is essential to agree, they contradict the obvious things: eg They say: "it's impossible", «I do not understand it». Under usual conditions such personalities are capable of agreeing with somebody or something and to achieve considerable artistic successes.

Exalted personalities overpraise themselves excessively, boasting of that which is not deserved by them. They are aroused in one's joy and they are in despair while having some trifles; their reaction to themselves and there are extremely emotional and affect.

Anxious characters always wait for danger, display increased timidity, shyness, bewilderment. People of this character type are

capable of hiding from danger, escaping from weaker person, if he threatens with something .

Introverts are unsociable, they direct their thoughts and experience on themselves, on their world. They avoid contacts with others and are not capable of adopting themselves to circumstances. It is considered, that **autism** of teenagers is more typical of introverts.

Extroverts, on the contrary, are fond of communication, contacts with others. They speak a lot about themselves, they are boastful and concentrate on external phenomena chiefly, but not on themselves. Such people are inclined to agree with everything they are offered.

19.4. Character Nature

Human psychic characteristics are special displaying of the higher nervous activity, which basis is inborn peculiarities of the nervous system, original combinations of which (strength, balance, mobility) are shown in the temperament types. But one should remember, that any inborn type of the nervous system from the first days of life is under the influence of the social life conditions, education, which influence on their functioning.

In the life process human **dynamic stereotypes**, appear, ie the systems of nervous connections in the cortex of the big hemispheres of cerebrum. These systems are under the influence of various irritants acting in a certain sequence and system. The reiteration of such irritants cause the formation of strong nervous connections, which are shown easier and more automatically, without a special nervous effort. The formation and alteration of dynamic stereotypes demand considerable and sometimes hard efforts of the nervous system. Dynamic stereotypes form the base of usual actions, character traits, which, as it was mentioned above, mostly appear unvoluntarily.

So, personality character is a complicated synthesis of nervous activity and life impressions, conditions and education. I. Pavlov writes that from the very birthday living being suffers from various influences of the environment and they must be answered at once by individual's certain activity. It is often fixed for the whole life and are shown in certain character traits. So, character, in I. Pavlov's opinion, « is an alloy of the certain type traits and changes, conditioned by the environment».

In the theory about character there were attempts to connect human character with the body constitution, endocrine glands

peculiarities. However, these attempts couldn't reveal the character nature. Those theories, which considered character to be an inborn psychic characteristic failed utterly.

People are born with different peculiarities of the cerebrum functioning. It is conditioned by the type of the nervous system, but these physiological distinctions are only a precondition for forming of different moral and psychological qualities in the process of life, in particular distinctions in character as well. The fact that in one family under the same conditions children grow up with different character traits, can not be the evidence of character traits innate origin. But identical conditions in upbringing children does not exist. Multi-sided communication, the circumstances, which children get into and their experiences create extraordinarily various conditions of life and education of children. Just it, reflecting in the child's brain, causes various individual reacting methods, which gradually become character traits, typical only of this particular child. The very moral and life ethical norms and demands for children in the process of their upbringing (directions, sanctions) are mostly can be typical of displaying of the specific character peculiarities, common for many people.

19.5. Character Formation

Formation of character is a developing process of steady psychological personality formations under the influence of objective and especially created conditions. When actions and deeds, as a result of their reiteration become usual they determine a typical model of behaviour.

Human character is formed in the process of individual life under the leading influence of the social conditions. Active personality activity, and first of all, work as one's environment of social being, communication, as the necessary condition of one's self-knowledge and self-realization plays especially important role in character education. Moral, intellectual, volitional and other personality qualities, which fixed under the influence of certain life conditions, acquire the meaning of character traits in the process of work.

Reforming, which is taking place in our society nowadays, the appearance of new ideals and values, caused by entering the system of market relations, create the preconditions for forming of character traits of new business man.

Among the factors, which are of vital importance for human being and influence forming of character, a special role belongs to education. Education organizes the life circumstances and directs vital influences towards essential way in which person is developed, supports them, creates suitable attitude towards the reality of personality, who is developed. At the same time it hinders negative influences, prevents forming of undesirable habits and traits of one's behaviour.

At a certain rather high stage of personality development, self-education and self-regulation of character formation process, take place. Personality needs, ideas, orientations, formed in the process of education, become the basis of one's demands for the external life conditions, and oneself as well. Individual begins to organize one's life and while upbringing, is guided by both personal and socio-valuable goals. An ability to self-education of character is shown, when personality gets some life experience, acquires the basis of psychological culture; when one's world outlook has been formed and ideals according to which individual starts planning one's life consciously and find one's own place in the world.

Distinction in character can be noticed already among the children of young pre-school age. At this age, as education experience in kindergartens shows, such character traits as companionship, collectivism, tenderness, courage, shyness reticence, neatness, accuracy, patience or whimsicality, obstinacy, abruptness and others are shown distinctly. Character traits displaying at this age is closely connected with temperament.

At adolescent age character education is of vital importance. Teenager is not a child yet, he has sharp interest in reality, his activity is great and he strives for physical and mental activity. One should learn how to organize this activity, it is essential to teach the teenagers in acting in a friendly manner, while being involved into social work, and to work in an organized way. It is necessary to remember that ignorance of the teenagers age peculiarities in education very often causes negativism, bravado, disobedience, lack of self-control and non-motivated actions. At the same time teenagers are sensitive to a collective thought. They value collective estimation and are guided by it in their behaviour and it plays an important role in their character formation.

Boys and girls of senior school age already achieve their physical maturity and are capable of displaying in their behaviour labour and education sufficiently formed character traits such as: responsibility,

discipline, purposeful persistency, adherence to principle, independence.

Researches in the sphere of character formation proved, that independence and self-activity in labour and education are especially effective factors. So, it is necessary to create such conditions for teenagers, under which they can display collectivism, fortitude, self-control and diligence. But it is a big mistake, when education levels individual's qualities in the collective. In group it is essential to reveal and develop the best character traits of every group member and form a bright individuality.

Success of character traits formation needs the unity of educational measures including family, school, social environment and the public ones.

Theme Key Notions

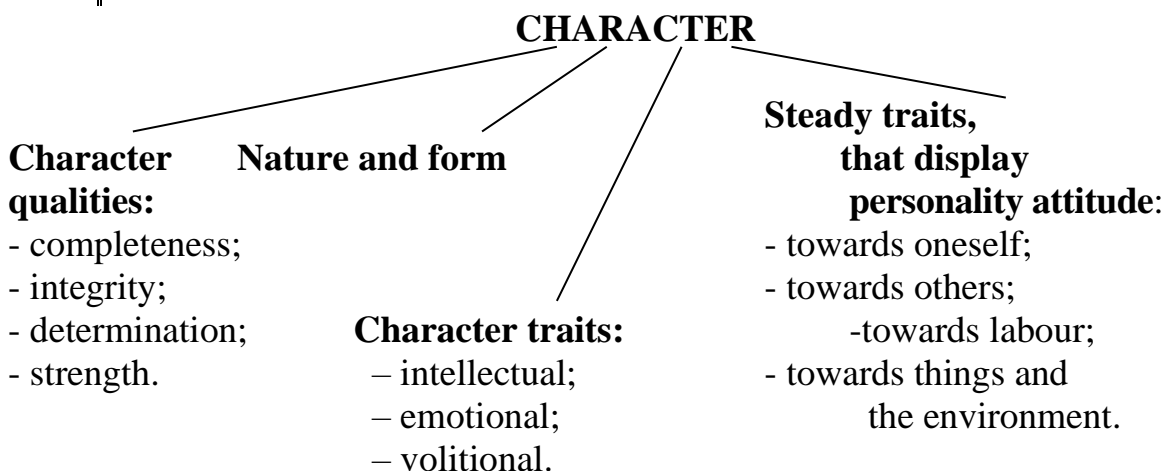
↪ **Character, character structure, character type, sticking accentuation, accentuation, pedantry accentuation, demonstration accentuation, accentuation of anxiety, character traits, moral character traits, volitional character traits.**

Formalized Structure of the Theme Contents

Character is an individually original combination of permanent essential personality qualities, which are shown in personal behaviour.

Groups of character traits, that express personality attitude towards reality:

attitude towards individual labour activity, attitude towards others, attitude towards oneself, attitude towards things and towards the environment.



Questions for Individual Work

1. What individual's character traits does character consist of?
2. What attitude displaying is personality character shown in full in?
3. What components can be singled out in the character structure?
4. What character traits are considered to be typical and not typical of person?
5. What does personality character accentuation display in?
6. In what way are natural and social factors united in character?
7. What is the mechanism of character formation?
8. In what way are character and temperament connected?
9. What are conditions of character formation?

Alternative Test Tasks for Self-Control

1. Do you agree, that the physiological basis of character formation is dynamic stereotypes?
2. Whether contradictions between nature and form possible or not?
3. Can one affirm, that accentuation of certain personality character traits are caused by circumstances of one's life only?
4. Are all the steady personality behaviour peculiarities the essential elements of character structure?
5. Are all of the character qualities can testify about its formation ?
6. Can character influence temperament displaying peculiarities?
7. Is social factor considered to be the principal one which influences character formation decisively?
8. Can one agree with the statement that some character traits can be hereditary?

Task and Problem-Solving Situations

1. In what way does character influence temperament? In what direction and under what conditions this influence can take place?
2. What individual's behaviour peculiarities testify about one's character strength? What are psychological conditions of strong character formation?
3. In what way can the fact, that individual's character displays in complicated, critical situations, be explained?

4. Is the statement “Character is formed in struggle” true or false from the psychological point of view? Give your arguments.

Used and Suggested Literature

1. Загальна психологія: Підруч. для студентів вищ. навч. заклад. / За загальн. ред. акад. С.Д. Максименка. – К.: Форум, 2002.

2. *Леонгард К.* Акцентуированные личности. – К.: Вища школа, 1982.

3. *Максименко С.Д.* Общая психология. – М.: Рефл-бук, К.: Ваклер, 2001.

4. *Норакидзе В.Г.* Методы исследования характера. – Тбилиси, 1989.

5. Психологія / За ред. Г.С. Костюка. – К.: Радянська школа, 1968.

6. Sergey Maksymenko. General Psychology. – Vinnytsya, 2005.

Навчальне видання

Сергій Дмитрович Максименко
Ксенія Сергіївна Максименко
Олена Олексіївна Лазуренко
Оксана Миколаївна Шпортун
Олена Миколаївна Немеш
Лариса Олексіївна Шатирко
Людмила Віталіївна Дзюбко
Людмила Анатоліївна Терещенко
Ганна Володимирівна Савченко
Володимир Максимович Невмержицький
Олександр Дмитрович Гришко
Олена Вікторівна Тарнавська
Юрій Борисович Ірхін
Алуа Умурзаківна Есмаханова
Нікіта Олександрович Бондаренко
Олександр Олександрович Кучеренко
Дмитро Олексійович Мошаров

ПСИХОЛОГІЯ І ПЕДАГОГІКА

Том 1

Підписано до друку 02.12.2024. Формат 60×84/16.
Папір офсетний. Гарнітура Таймс. Друк офсетний.
Умов. друк. арк. 42,7. Наклад 300. Зам. 409.

Надруковано у «Видавництво Людмила»
Свідоцтво про внесення до Державного реєстру
суб'єктів видавничої справи ДК № 5303 від 02.03.2017
«Видавництво Людмила»
03148, Київ, а/с 115
Тел./факс: +380504697485, 0683408332
E-mail: lesya3000@ukr.net