

BORIS MIKHAILOVIC TEPLOV

**PSYCHOLOGY
HIGH SCHOOL TEXTBOOK**



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The Central Committee of the All-Union Communist Party of Bolsheviks (b), in its decree “On the teaching of logic and psychology in secondary school” of December 3, 1946, declared it completely abnormal that secondary schools did not study logic and psychology, and considered it necessary to introduce it within 4 years, starting from 1947/48 academic year, teaching these subjects in all schools of the Soviet Union. In accordance with this decree, the teaching of logic and psychology was introduced in 598 secondary schools in 1947–1949. Then, in 1947, a textbook by B. M. Teplov “Psychology” was published, intended for high school students.

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CHAPTER I. THE SUBJECT OF PSYCHOLOGY

§ 1. General Concept of the Psyche

Psychology is a science that studies the human psyche. Under the psyche we mean our feelings, ideas, thoughts, aspirations, desires, well known to each person from his own experience. The psyche also includes the interests and abilities of a person, his temperament and character. How are the processes of perception, feelings, volitional processes? What are the laws of memory, imagination, thinking? How do abilities develop and character of a person is formed? These are the questions that psychology deals with.

A person is a member of society, and therefore his mental properties are formed under the decisive influence of social conditions of life. It is depending on the living conditions and activities of man in society that his psyche, consciousness develops. "... Consciousness from the very beginning is a social product and remains so for as long as people exist at all" (Marx).

The classics of Marxism-Leninism—Marx and Engels, Lenin and Stalin—indicate that the source of sensations, ideas, thoughts is the external, material world, and the psyche, human consciousness, is a reflection of the world.

The psyche is one of the properties of matter that has arisen in the process of its development. Inorganic matter does not possess this property, it does not feel and does

not think; and within the limits of the organic world, not all matter possesses a psyche. It took a long path of development of wildlife in order to come to the matter of sensing and thinking. The human psyche is a special property of highly organized matter - a property of the brain. This property is a reflection of the surrounding reality.

Reflection of objects of the real world by the human brain should not be understood as a passive reflection, similar to reflection in a mirror. A person does not passively perceive the world; he cognizes it in practical activity, actively influencing nature and other people. It is in this vigorous activity that our sensations and perceptions arise - the images of those material objects and phenomena that act through our senses on our brain and are reflected in it.

Modern science of the brain gives us knowledge of the physiological processes that occur in the working brain. IP Pavlov's research in the field of higher nervous activity discovered those physiological processes that form the basis of the reflection of the real world by the human brain. These studies removed the veils of secrecy from the so-called mental activity: on the vast material of experimental facts it was proved that the psyche is determined by external influences, the conditions of existence.

The teachings of I.P. Pavlov on higher nervous activity, as the greatest achievement of modern brain science, are the natural-scientific foundation of psychology.

The word “psychology” is formed from two Greek words: “psyche” (soul) and “logos” (word, teaching), and means “science of the soul.”

According to the ideas that arose in ancient times and still exist in religious beliefs and in the views of some bourgeois philosophers, the soul is an intangible, ethereal creature that lives in the human body and leaves it at the time of death. According to these ideas, the soul is the carrier and the cause of the whole mental life of a person: his feelings, thoughts, desires. This understanding of the psyche is idealistic.

The opposite and the only scientific understanding of the psyche is materialistic. The brain, and not the disembodied soul, is the organ of our mental life, the bearer of all our mental processes: thinking, feelings, will. The reflective activity of the brain makes up our mental life.

For millennia in psychology, a struggle has been waged between materialism and idealism. Even in ancient Greece and Rome, many thinkers and scientists struggled with an idealistic understanding of the soul and made attempts to give a materialistic explanation of mental life. This struggle was continued by advanced scientists and materialist philosophers of the new era. The great Russian materialist philosophers—Herzen, Belinsky, Chernyshevsky, and Dobrolyubov—made a valuable contribution to the development of a materialistic understanding of mental life. Of great importance for the struggle for materialistic psychology were the works of the great Russian scientist, physiologist and psychologist I.M. Sechenov.

However, only recently, on the basis of dialectical materialism created by the works of Marx, Engels, Lenin, Stalin, it became possible to build a consistent materialistic psychology.

Psychology Studies

1. Mental processes. Perception, remembering, thinking, feeling, volitional decision - these are all different types of mental processes. To understand the complex stream of mental life of a person, it is necessary first of all to distribute all mental processes into certain groups, to select separate areas, or sides, of the psyche, in other words, to classify mental processes. The most general and simple classification is based on the distinction between the three closely related aspects of mental life: knowledge, feelings and will.

To correctly understand the human psychic life, one must bear in mind that cognition, feeling and will do not exist apart from each other. Feeling, we experience our attitude to what we know or do; making a volitional decision, we proceed from certain thoughts and feelings.

Mental life, in spite of all its complexity, variability, sometimes seeming capricious and unstable, is subordinated, like all other phenomena of reality, to certain laws.

Psychology has the task to establish the laws of mental processes and thereby give a scientific explanation of these processes.

2. The mental properties of the personality, that is, the most significant and stable features that characterize each person in contrast to others. The mental properties of a person include: the interests and inclinations of a person, his abilities, his temperament and character.

Psychology sets itself the task of studying the formation and development of human mental properties. How are human interests created? How do his abilities develop? How is his character formed? The study of such questions is one of the most important tasks of psychology.

§ 2. Mind and Activity

While a person lives, he acts in one way or another, in one form or another manifests his activity. All human life is filled with one activity or another.

Acting on a thing, a person is guided by the image of this thing that he has - his perception, understanding, concept of it. If the image is correct, action with the thing can lead to the desired result; if the image of a thing is false, it will lead to failure. Thus, the verification of the correctness, truthfulness of those images of reality that deliver our sensations and our thinking is given by practical activity, practice. A person does not always carry out this kind of verification by personal experience.

The main importance is the socio-historical practice of people. It is known that social experience is transmitted from generation to generation in the form of tools of production, in the form of scientific knowledge, etc.

Cognition is a reflection of the real world arising in the process of activity, practice; its correctness is checked by the results of this activity.

All mental processes always proceed in any activity. This applies not only to volitional and cognitive, but also to emotional processes. Man always acts in one way or another, and in the course of his activity he cognizes and feels.

Of course, one does not need to think that all activity is manifested in external movements. Solving a difficult task, a person can outwardly maintain complete immobility, and yet we will say that in this case he is active, that he performs certain activities that have their own goals and require considerable volitional efforts from him.

Mental processes cannot be understood, regardless of the activity of a person as a person, that is, a member of a society living and actively acting among other people in a certain historical era, in certain social conditions.

Not only mental processes arise in human activities, but also mental properties of the personality are formed in activities.

Human abilities are revealed in the occupations of a particular activity; abilities not only manifest themselves in activity, but they are formed, developed at the same time. And character traits are also formed only in activity, in actions. To develop perseverance and perseverance, you need not to be afraid of difficulties, systematically deal with them, overcome them. A person's life, his

practical activity forms his mental appearance. Not knowing how a person lives and what he does, we will never understand why one or other interests arose in him, these or other abilities developed, or this or that character developed.

§ 3. The Basic Laws of Higher Nervous Activity

The teaching of I.P. Pavlov on higher nervous activity reveals the physiological foundations of the psyche and the conditioning of the psyche by the conditions of existence. As you know, IP Pavlov, studying the physiology of higher nervous activity, discovered laws that are common to man and higher animals. In addition, he specifically investigated the human mechanisms of higher nervous activity. A scientific explanation of the human psyche is impossible without knowledge of the laws of higher nervous activity.

The basic, most universal principle of the cerebral cortex is the principle of the formation of temporary (conditional) nerve connections. It is as follows. If two stimuli act on an animal at the same time: one - causing an unconditioned reflex (for example, food), and the other - neutral, which in itself does not cause an unconditioned reflex in an animal (for example, a bell), then two centres of excitement appear in the cortex. A connection is established between these foci of excitement, which strengthens with the repeated coincidence of these two stimuli in time. As a result of the formation of such a bond, the neutral stimulus causes the same reaction as under normal conditions causes food. The most important condition for the formation of this connection is the repeated coincidence in time of two stimuli.

Temporary connection is the most universal phenomenon in the work of the cerebral cortex. The activity of the cerebral cortex, consisting in the fact that numerous external stimuli signal other important phenomena for preserving the life of the organism, is called signalling activity. In the above example, a bell is a food signal.

In the cerebral cortex, along with the processes of excitation, there are processes of the opposite nature - processes, inhibitions. The activity of the cortex at any moment is a complex mosaic of processes of excitation and inhibition, interconnected by the law of mutual induction of nervous processes. This law is as follows. If excitation occurs in any part of the cortex, then a process of inhibition (negative induction) develops in related parts of the cortex, and vice versa, if there is a process of inhibition in any part of the cortex, then the process of excitation (positive induction) develops in neighbouring areas.

It was experimentally shown that the excitation that arose in any area does not remain in one place, but spreads, radiates along the cortex. At the same time, the opposite process arises - inhibition - which limits and directs the process of excitation in a certain direction, leading to concentration, concentration of excitation. At the same time, the process of inhibition is also able to spread along the cortex, irradiate, and gather at one point, concentrate.

Thus, along with the law of mutual induction, the law of irradiation and concentration of nervous processes also operates, which determines the movement of the processes of excitation and inhibition in the cerebral cortex.

A special case of the law of induction is external inhibition, which consists in the following. Suppose that an animal has developed a conditioned food reflex to a bell — then the saliva flows from the dog's bell. If during the action of the call some sufficiently strong new stimulus begins to act (for example, an outsider enters the room), then the conditioned reflex will slow down, the saliva will stop flowing. This is because the appearance of a new focus of excitation causes inhibition of other parts of the cortex, as a result of which the developed conditioned reflex is inhibited.

Another nature is the internal, or conditional, inhibition that occurs under certain conditions of functioning of this temporary connection. It is not the result of extraneous irritations. An example of internal inhibition is the extinction of the conditioned reflex. If a conditioned stimulus (bell) is given several times in a row without reinforcing it with an unconditioned stimulus (food), then it ceases to cause a conditioned reflex. The resulting connection is temporarily inhibited. If, however, after a while you give the call again, the conditioned reflex will resume. This proves that the conditional relationship is not destroyed, but only temporarily inhibited. Such inhibition is of great importance, causing a temporary fading of the reflex, which in these conditions is useless.

Each reaction of an animal organism occurs according to the principle of reflex, i.e., it is a response to external influences. But it is determined not only by what stimulus is falling on the body at the given moment, but also by what kind of communication systems are already formed in the cortex.

In particular, with a long repetition in the same sequence of a number of conditioned reflexes, the distribution of the centres of excitation and inhibition in the cortex is fixed in a certain way, as a result of which reproduction of this system of reflexes occurs easily, without effort. It has been shown by numerous experiments that if a dog develops several reflexes to different stimuli that are repeated in a certain order a sufficient number of times, it turns out that after a certain number of repetitions, the animal will reproduce the entire system of responses even if the stimuli are significantly changed (for example, if a conditioned brake is in place of a positive stimulus, and vice versa). Such a stable distribution of foci of excitation and inhibition in the cortex, providing a certain system of reactions,

A dynamic stereotype is an adaptation of an organism to the same, repeated external influences. In some cases, in order to cause all the effects of a given system of reflexes, not even an appropriate amount of stimuli is required. It is enough to give a signal, which serves as the beginning of a system of stimuli, so that all reactions follow automatically. It is clear that such an opportunity will take place only with sufficient strength, fixed stereotype. If the developed dynamic stereotype ceases to correspond to the changed order of external stimuli, then it is rearranged, changed in accordance with new conditions.

§ 4. Methods of Studying the Human Mental Life

The main methods of psychology are observation and experiment.

The most important feature of a truly scientific psychology is the objective study of the psyche. "A man will receive innumerable benefits and extraordinary power over himself," said I. P. Pavlov, "when the natural scientist of another person undergoes the same external analysis as he should do with any object of nature, when the human mind looks at itself not from the inside, but from the outside ".

We already know that the psyche is inextricably linked with activity, that it manifests itself in the actions and actions of a person. Therefore, observation of the actions of people and analysis of their statements, speech reactions make it possible to judge their mental life.

The work of a psychologist cannot, of course, be limited to direct observation of those people with whom he can personally communicate. Direct observation materials are supplemented by the study of activity products and documents such as diaries, letters, and memoirs.

The importance of experiment in psychology is very great.

During experiments, the researcher does not wait for the accidental onset of mental processes of interest to him, but creates the conditions himself to cause these processes in the subjects. (Subjects are persons who are undergoing a psychological experiment.) Using special instruments and methods, it is possible to measure certain aspects of mental processes, for example, perception speed, accuracy and strength of memory, etc. By repeating the same experiment under different conditions with different people, You can establish the

individual characteristics of this process in each of these people.

In an experiment, the researcher voluntarily changes some of the conditions under which the process proceeds and observes what consequences this leads to. For example, changing in turn the conditions for memorizing some material (say, foreign words), you can find out under which of these conditions it occurs faster, under which it is more durable. This opens up the possibility of establishing the cause of the phenomenon and learning how to manage it.

All mental processes and personality traits are studied in the process of their formation, development. In this case, the psychological analysis proceeds from the social conditionality of the individual. You can not study the psyche of a person, especially his personality, not taking into account the era in which a person lives, the conditions of his life, his class, his place in public life.

Scientific psychology seeks to uncover the physiological basis of psychic phenomena. Along with the study of the social conditioning of the psyche, the most important task of psychology is to elucidate the brain mechanisms of the psyche based on the teachings of I. P. Pavlov on higher nervous activity.

§ 5. The Significance of Psychology

The study of man is one of the most important tasks of science, and psychology occupies one of the first places among the sciences of man. The study of psychology, along with other sciences, is necessary for the

development of the scientific; materialistic worldview. It is known that the idealistic doctrine of the soul is a support for all kinds of superstitions and prejudices. Knowledge of psychology, a truly scientific understanding of the physiological foundations of the psyche, is a powerful weapon in the fight against these superstitions and prejudices.

The significance of psychology is especially great here in the USSR, in the era of the transition from socialism to communism. Soviet psychology is called upon to equip people with knowledge to help combat the remnants of capitalism in the minds of people and to solve the tasks of the communist education of our youth.

Psychology makes it possible to understand the mental life of people. Therefore, the significance of psychology is very great for any work related to the impact on people and requiring the ability to take into account their mental state and understand their individual characteristics. And one can hardly name at least one specialty in which a person does not face the need to understand other people, understand them and act on them.

Comrade Stalin called the writers “engineers of human souls.” It is hardly necessary to prove how useful it is for a writer to know the laws of the spiritual life of a person. To a certain extent, “engineers of human souls” are representatives of other specialties, primarily teachers. For them, knowledge of psychology is absolutely necessary.

It is also necessary to point out the importance of psychology for the study of literature and history. The

ability to understand the human mental life contributes to a more complete understanding of many historical and literary facts.

The study of psychology helps to understand your mental life. Each person knows for himself how difficult it is sometimes to put in a word, to describe your own experience. At the same time, the ability to name, describe your experience is very valuable: it makes it possible to realize this experience, understand it and, thanks to this, to a certain extent master it. Psychology makes it possible to understand yourself, to know your strengths and weaknesses. And to know oneself is necessary for self-education, for working on oneself, for correcting one's shortcomings, for developing one's abilities. It is also necessary to know oneself in order to consciously choose a profession, a job in which you can bring the most benefit to your homeland and get the most satisfaction.

Knowledge of psychology helps to properly organize mental work, in particular academic work. What techniques of memorization are the most economical and lead to a better assimilation of knowledge? How to organize exercises to develop certain skills? What determines the development of observation, attention, thinking? All these questions belong to the field of psychological knowledge.

Modern psychology is divided into a number of industries. Along with general psychology, which studies the laws of the mental life of an adult normal person, the most important branches of psychology are: child psychology, which studies the child's psyche, and

pathopsychology (from the Greek word “pathos” - suffering), which has painful evasions in the psyche of people in psychological science. a number of special industries that study mental life in conditions of certain types of activity: labour psychology, pedagogical psychology, military psychology, art psychology, etc.

Questions to Repeat

1. What issues does psychology deal with?
- 2 What is the materialistic understanding of the psyche?
3. What is the difference between mental processes and mental properties of a person?
4. What is the relationship between the psyche and human activities?
5. What is the principle of the formation of a temporary (conditional) nervous connection?
6. What is the difference between external and internal braking?
7. What is a dynamic stereotype?
8. What are the requirements for observation as a method of studying the mental life of people?
9. What is the meaning of experiment in psychology?
10. What is the significance of the study of psychology?

CHAPTER II. DEVELOPMENT OF THE PSYCHE

§ 6. General Concept of the Origin and Development of the Psyche

At the core of the materialistic worldview is the doctrine of the development of matter.

A definite stage in the development of matter is the emergence of life, i.e., the appearance of living, or organic, matter. Having arisen from inorganic matter, living matter, unlike inanimate matter, has its own special properties. The most important of these properties is irritability, that is, the ability to respond to external stimuli, to come under the influence of the environment into a state of activity. Living matter is irritable matter.

A further stage in the development of matter is associated with the appearance of a new property in higher forms of living matter - sensitivity, that is, the ability to have sensations that reflect the properties of objects that affect the body.

Sensations constitute the initial form of the psyche.

The psyche, therefore, is not a property of all living matter. It is a property of higher forms of organic matter. It took a very long way of development in order to come from sensible matter only to sensory matter, from the first appearance of life on earth to the emergence of animals with a psyche.

The psyche arose at a certain stage in the development of animals.

It is possible that sensations arose in animals that did not have a nervous system. "The sensation is not necessarily connected with the nerves, but with some protein bodies that have not yet been established more precisely" (Engels). There is no doubt, however, that starting with the intestinal cavity, the psyche becomes a function of the nervous system and the further development of the psyche is associated with the development of the nervous system. In vertebrates, the brain becomes the direct carrier of the psyche. Thus, in higher animals and humans, the psyche is a product of the brain, or, in other words, the brain is an organ of the psyche.

Man appeared on earth as the highest product of the development of the animal world. It is clear that the human psyche was prepared by the entire previous course of development of animals. The process of the emergence and development of the psyche in the animal world constitutes, as it were, the prehistory of the human psyche. The study of this process allows us to understand how the appearance of the human psyche was prepared and what is new and special that characterizes it, in contrast to the psyche of animals.

Human consciousness is the highest stage of development of the psyche. Crucial in the transition from the forms of the psyche characteristic of higher animals to human consciousness was labour. "... Labour created man himself" (Engels). Labour has created human consciousness.

The brilliant work of I.V. Stalin on linguistics has shown tremendous importance for the development of consciousness of sound language. "Sound language," JV Stalin points out, "in the history of mankind is one of those forces that helped people to stand out from the animal world, unite in society, develop their thinking, organize social production, wage a successful struggle with the forces of nature and reach to the progress that we have at the present time. "

Of course, the consciousness of primitive people was still very different from the consciousness of modern man. Those features that we observe in the psyche of modern people are not something inherent in human nature. Human consciousness developed in the course of historical development, on the basis of the development of social living conditions.

The long path of development of the psyche from its emergence to the consciousness of modern man has qualitatively different periods: 1) the development of the psyche in animals, governed by the biological laws of variability, heredity and natural selection and preparing the emergence of human consciousness, and 2) the historical development of human consciousness, for which the main significance have socio-historical laws.

§ 7. Living Conditions and the Psyche of Animals

The development of the psyche is an integral part of the general evolution of animals. Animals adapt to environmental changes not only corresponding changes

in the structure of the body, but also changes in behaviours.

For successful adaptation to the environment, flexibility, variability of the animal's behaviour, and the ability to quickly change its behaviour in response to changes in external conditions are of paramount importance. Variability of behaviour is associated with the level of mental development: the higher the latter, the more flexible and perfectly animal adapts to environmental changes.

It should be distinguished, on the one hand, the forms of animal behaviour with a predominance of hereditary mechanisms, the so-called instincts, on the other hand, the forms of behaviour developed in the individual experience of the animal.

The physiological basis of instinct is unconditioned reflexes. Instinctive behaviour is nothing more than a chain reflex, that is, a series of successive reflex movements, of which each previous is the initial impetus for each subsequent. Unexplained at first glance instinctive actions performed by animals without special training, are a system of unconditioned reflexes, fixed in the process of development of the species. The construction of hundreds of bees or nests by birds, the flight of birds - examples of instinctive actions.

Complex chain reflexes (instincts) are produced as a result of the accumulation in a number of previous generations of those properties that were acquired by animals of this species under the influence of environmental influences. This explains that instincts are

well adapted to the usual living conditions for a given species: a bee builds its honeycombs so that the smallest space and with a minimum of material achieves the highest possible capacity.

However, one should not think that such actions to some extent speak of the mind of the animal; the bee, of course, does not make a mathematical calculation of its structure. The assumption of “rationality” of instinctive actions is refuted by the following observations: these actions continue to be carried out even with such a change in conditions that turns them into meaningless ones. If you shift the egg several times to the side of the little hut that is hatching the chick during her flight, she sits exactly in the same place upon her return and continues to “hatch” it, not caring at all for the egg that lies nearby in her field of vision. Thus, any unusual change in living conditions can turn an instinctive action from a very perfect and expedient into a biologically meaningless, and sometimes even harmful.

Unconditioned reflexes (instincts) are not, however, completely unchanged. Advanced Michurin biology exposed the falsity of the claims of idealist biologists about the immutability of the hereditary properties of the organism. Getting into new living conditions, the body acquires new properties; These new properties, inherited, are strengthened and fixed in a number of generations. Thus, a change in heredity occurs.

The conditioned reflexes formed in the process of individual development, on the one hand, and congenital, unconditioned reflexes, which are the result of the development of many generations, are on the other hand

closely interconnected. The conditioned reflexes corresponding to the constant factors encountered in the life of a given species can become more fixed, made hereditary and transmitted to posterity."It can be accepted that some of the conditioned newly formed reflexes later become inherited by heredity into unconditioned" (Pavlov). On the contrary, those unconditioned reflexes that cease to respond to changing external conditions cease to be inherited by posterity. Thus there is a change in instincts. But this change is relatively slow, over the course of a series of generations.

In animals, the nervous system of which reaches a sufficiently high level of development, behaviour is built largely on the basis of temporary connections that develop in the individual experience of the body. The animal inherits unconditioned reflexes, and conditioned reflexes are developed in it throughout life.

What is called the "training" of the animal is the production of conditioned reflexes. Worms already have known possibilities for this. As a result of repeated experiments, one can teach an earthworm to turn right and not left at a certain place on his way to his home if, after he turns left, an electric current is passed through it.

The study of conditioned reflex activity in animals at different stages of development shows that the more complex and perfect the organism, the more developed it is the ability to produce conditioned reflexes. In mammals, as is well known, the possibilities of developing a variety of conditioned reflexes are extremely great.

The biological significance of conditioned reflexes lies in the fact that new temporary connections make it possible to accurately and timely adapt to changing living conditions. Moreover, it is very important not only that all kinds of neutral stimuli can become signals of unconditioned stimuli, but also that, under the changed conditions, new nerve connections easily disappear and are inhibited. Conditioned reflexes explain the most complex forms of appropriate animal behaviour.

The development of the psyche is carried out in inextricable unity with the development of its material carrier—the nervous system, in particular the brain.

Starting from mammals, the cortex of the cerebral hemispheres of the brain becomes the organ for the production of conditioned reflexes, and the evolution of the cortex is of paramount importance.

The complication of the nervous system and the development of various forms of animal behaviour are ultimately determined by lifestyle. Take birds as an example. A central fact that determines both their structure and psyche is their fitness for flying life in the air. Flight life requires a good development of vision and hearing; in this direction the development of sensory organs in birds proceeded. In birds of prey, the ability to see their prey from a distance is crucial, so their visual acuity reaches a level that is not available to any animal. On the other hand, life in the air makes few demands on the sense of touch and smell, as a result of which these sensations are very poorly developed in birds. The movements of birds are highly specialized (flight movements), but they are very stereotyped and

provide few opportunities for the development of diverse and variable forms of behaviour. Air is a much more uniform environment than the surface of the earth, on which most mammals live. Therefore, evolution in birds went in the direction of improving and complicating unconditioned reflexes (instincts), the least flexible form of behaviour, and mammals began to develop behaviours that are more variable, i.e., conditioned reflexes.

Another example is monkeys. The fact from which to proceed when explaining the height of their mental development is an arboreal lifestyle. Life on trees broadens the field of view; the sense of smell decreases, the role of vision increases. Balancing on branches, jumping from branch to branch require a good eye, the development of touch and, most importantly, the ability to various and dexterous movements. Monkeys feed on the core of nuts, fruits, stems; they have to extract food using fairly fine and subtle movements. Significantly high development of the hand, to a certain extent freed from the function of movement (thanks to the arboreal lifestyle) and began to fulfill the function of grabbing. As a result, numerous and very mobile systems of conditioned reflex connections are formed in monkeys. Separate temporary connections in monkeys, according to I.P. Pavlov, they are closed in a chain of bonds, these chains of bonds can grow and enrich, increasing the adaptive capabilities of the animal. In this connection, reflecting the actual properties are reinforced, and random connections are inhibited, resulting in the reflection of some of the essential properties of objects, and then the relations between objects.

The apical research reflex is highly developed in monkeys, about which IP Pavlov writes: “The reflex, which could be called the research reflex, or, as I call it, the” what? “Reflex, is also quite of fundamental reflexes. Both we and the animal, at the slightest fluctuation in the environment, establish the corresponding receptor apparatus towards the agent of this vibration. The biological meaning of this reflex is enormous. “On the basis of the development of an orientation-research reflex, the “curiosity” characteristic of monkeys arises - the desire to peer into every new subject, grab it and manipulate it.

All of the above helps to understand why the monkeys had those rudiments of mental activity that make up the highest stage of mental development in the animal world.

§ 8. Human Consciousness

1) The Role of Labour and Language in the Development of Consciousness

Human consciousness arose as a result of the transition from animal existence to work. The animal adapts to nature, but man changes nature to satisfy his needs.

The originality of this production, labour activity, which constitutes the main, decisive difference between a person and his animal ancestors, determines the characteristics of the conscious psyche of a person.

For labour, it is primarily characterized by two traits connected with each other: 1) the use and manufacture

of tools and 2) the social, collective nature of labour activity.

“The labour process,” says Engels, “begins only in the manufacture of implements.” The prerequisites for this were created, as we saw, already in monkeys. Such prerequisites were the partial release of the hand from the function of movement and its adaptation to the function of grasping, the development of the ability to manipulate things under the control of vision, the development of the rudiments of mental activity. However, another decisive step was required—the transition to a straight gait and the complete liberation of the hand from the function of movement in order to move from the accidental use of tools by higher monkeys to the work of the first people, based on the manufacture and use of tools.

It has been proven by numerous experiments that a monkey can sometimes use a stick, a bough or another long object in order to get a bait (banana, orange), which it cannot reach with its hand. However, there is a significant difference between the real tool and the stick, which the monkey uses as a “tool” to get a banana. This difference is due to the collective nature of labour. Labour arose as a collective activity, and from the very beginning the instruments of labour were characterized by certain methods of use worked out by this collective and known to this collective. Therefore, the guns could be made “for future use” and stored by the team. We find nothing of the kind in monkeys. The “way of eating” a banana stick is not assigned to this stick and does not become a property known to a whole group of monkeys.

The use of sticks as “tools” has a random, episodic character. Therefore, animals never store their “tools.” The use of tools is associated with the realization of some stable permanent properties of an object and equally stable relations of this object to others. It is impossible to manufacture and use a tool without being aware that it is a means of obtaining food or clothing, without being aware, therefore, of the relationship that it has to those things that are obtained with it. And in order to manufacture for the future and keep the gun, you need to be aware that this relationship has a constant, stable character. Awareness of the permanent properties of an object and its relationship to other objects is one of the most important signs of a transition from the rudiments of mental activity observed in animals to conscious human thinking.

The collective nature of labour presupposes a certain collaboration of individuals, that is, some, at least the most elementary, division of labour operations. Such a separation is possible only if each individual is aware of the connection of his actions with the actions of other members of the collective and, thereby, with the achievement of the ultimate goal.

Take, for example, the activity of a beater in a primitive collective hunt. What motivates him to work?—The need for meat or animal skin. The ultimate goal pursued by all participants in the hunt is to take possession of meat and animal skin. However, the immediate goal of the beater’s actions is completely different—to scare the beast and drive him away from you. What sense would these actions have if the beater had not realized the connection of his actions with the actions of other participants in the

hunt and, thereby, with the achievement of the ultimate goal - obtaining meat and animal skin? Obviously, the actions of the beater are possible only because he is aware of his actions as means leading to the achievement of the ultimate goal of the hunt.

Thus, in the conditions of collective labour, human activity becomes purposeful, that is, it involves awareness of the goal and the means that lead to the achievement of this goal. This is one of the fundamental differences between human activity and consciousness from the behaviour and psyche of animals¹.

Consciousness appeared simultaneously with speech, i.e., the communication of people with each other through language. "Language," wrote Marx, "is as ancient as consciousness." JV Stalin points out: "History does not know a single human society, be it the most backward, which would not have its own sound language."

¹ The "division of labour" in animals such as bees, ants, etc., has only an outward and, moreover, very superficial resemblance to a genuine division of labour that occurs only in humans. Insect activity is never collective; there is no mutual assistance in their activities. On surface observation, it may seem that, for example, ants "jointly" drag prey into an anthill. A more thorough observation shows, however, that each ant drags its prey in its own direction, and only because most ants move in the direction of the anthill, the prey ultimately moves in this direction.

Animals have no language. True, animals often influence each other with the help of voice sounds. An example is at least the signals given by guard birds in a flock. As soon as a person or a predatory animal approaches a flock of cranes descending into the meadow, the guard bird emits a piercing scream and rises into the air with a noisy flapping of wings, and the whole crane flock is removed after it. However, these cases are only outwardly similar to the speech communication of people. The bird does not cry for the purpose of informing the birds of the impending danger; a cry is part of an instinctive reaction to danger, a reaction that includes, in addition to a cry, flapping wings, take off, etc. Other birds take off not because they “understood the meaning” of this cry, but because of an instinctive connection between them screaming and taking off.

The conditional signals for the animal can be a variety of objects or their individual properties, coinciding in time with the appearance of food or the approach of danger. Such a signalling, providing orientation in the environment according to the properties and signs of surrounding objects and phenomena, having common patterns for higher animals and humans, was called IP Pavlov the first signalling system.

In humans, unlike animals, a sound language developed in the process of work and social life. Words and combinations of words that we hear, see or feel during pronunciation also signal certain objects or the relationships of things around us. This constitutes the second signalling system, which is a product of social life and forms a specially human “increase” that is not available in animals.

“In the developing animal world at the human phase,” writes IP Pavlov, “an extraordinary increase in the mechanisms of nervous activity occurred. For an animal, reality is signalled almost exclusively only by irritations and traces of them in the cerebral hemispheres that directly enter the special cells of the visual, auditory and other receptors of the body ... This is the first signalling system of reality that is common with animals. But the word constituted the second, especially ours, signal system of reality, being a signal of the first signals.”

On the meaning of verbal influences, IP Pavlov writes: “a word for a person is the same real conditioned stimulus as all the others in common with animals, but at the same time as comprehensive as no others that go either way in what quantitative and qualitative comparison with conditioned stimuli of animals. The word, thanks to the entire previous life of an adult, is associated with all external and internal irritations that come to the cerebral hemispheres, it signals them all, replaces them all, and therefore it can cause all those actions, body reactions, which cause those irritations. “

The second signalling system is inextricably linked with the first; a person always has an interaction of both signalling systems. The second signalling system allows in a generalized form to preserve the accumulated knowledge, serves as communication between people and underlies the mechanism of human thinking. Through the second signalling system, in its interaction with the first, the decisive influence of social conditions on the development of human consciousness is carried out; through the second signalling system, human consciousness manifests itself in his social activities.

Speech arose in the process of collective labour, when the emerging people inevitably had to have a “need to say something to each other” (Engels).

At the same time, an organ of human consciousness was formed - the cortex of the human brain. “At first, labour, as Engels points out, and then next to it, articulate speech was the most important stimulus, under the influence of which the monkey’s brain could gradually turn into a human brain, which, with all the similarities in the basic structure, surpasses the first in size and perfection” .

The human brain differs from the brain of all animals, including higher monkeys, primarily in size: the average weight of the human brain is 1,400 g, while the average weight of the brain of anthropoids is from 400 to 500 g

The human cerebral cortex has an exceptionally high development. It is a plate with a thickness of 3-4 mm, surrounding the large hemispheres from the outside. Microscopic examination reveals that the cortex consists of a number of layers that differ from each other in the type and functions of nerve cells in them. The nerve fibres that depart from these cells bind them to the sensory organs, to the organs of movement, and also form bonds between the cells. There are about 16 billion nerve cells in the cortex.

The cortex of the human brain is an integral organ, the individual parts of which, performing various functions, are intimately connected with each other.

In parallel with the development of the brain, the development of its closest implements — sensory organs and organs of movement — proceeded. Of primary importance in the early stages was the development of the hand, which was the organ of labour movements among the formed people and the organ of cognizing things through touch. Equally important was the development of the human vocal apparatus, capable of producing articulate sounds, the human ear, the ability to perceive articulate speech, and the human eye, able to notice in things that is not accessible to any animal.

The basic principles of the cerebral cortex, common to humans and higher animals, are described above in § 3.

The teachings of I.P. Pavlov about the second signalling system and its interaction with the first indicate specifically human mechanisms of higher nervous activity. The basic laws of higher nervous activity, established by I.P. Pavlov, are common to all people. But the content of a person's mental life is determined primarily by the influence of social conditions in which a person lives and acts. With a change in social life, the psychology of people changes significantly, as a combination of historically determined characteristics, habits, knowledge, thoughts and feelings. These changes in the spiritual appearance of people are what distinguishes a person from one historical era from another, one class from another.

2) Socio-Historical Conditioning of Consciousness

Human consciousness arose as a result of the transition of our ancestors to labour, production activities. But

“production,” says Comrade Stalin, “is always and under all conditions social production.” And we saw that all the basic features of human consciousness are explained primarily by the collective, social nature of labour. Therefore, the development of consciousness, the development of the human psyche is determined by the course of the socio-historical process.

This development was expressed primarily in the emergence of new needs. The animal is always prompted to activity by the same biological, instinctive needs. The development of new forms of behaviour, new modes of action in an animal is not associated with the emergence of new needs. When a dog develops a conditioned reflex to a new stimulus, for example, a light signal, this does not mean that a new need arises for it, in this case the need for light. The development of new forms of behaviour is driven by the same need for food, and the dog reacts to light only because it has become a signal of food.

This is not the case with man. Satisfaction of the labour of the first needs led to the development, refinement of these needs, and then to the emergence of new ones.

The development of needs created new impulses for human activity and led to its constant complication. It also informed the human psyche of wealth and breadth that so sharply distinguish it from the meagre mental life of animals.

In activities aimed at satisfying needs, human abilities were created and developed. Perceptual abilities were created as human activities required an ever more subtle

and perfect distinction between objects of reality. Thinking abilities developed due to the fact that human activity required him to more deeply comprehend the connections and dependencies between things and phenomena. Will and the ability to voluntarily focus attention developed because the labour process required tension, effort, required a long focus on the subject of work.

The wider and more diverse human activities became, the wider and more diverse their abilities became. In the process of development of science, the abilities of scientific thinking were formed, the development of music led to the development of musical hearing.

By mastering nature, man has learned to control himself. Unlike animals, he is able to be aware of his attitude to things, to be aware of his feelings, needs, drives. Based on the awareness of their feelings and drives, under the influence of the requirements of social life and activity, a person developed the ability to possess these feelings and drives, the ability to consciously regulate his behaviour. On this path, the foundations of the will and character of man were formed.

The mental development of animals is governed by biological laws, including the laws of heredity. In the development of the human psyche, these factors recede into the background in front of other, more significant.

Already in the first instruments of labour, as we have seen, collective, social experience was consolidated. Mastering a tool, a primitive man mastered social experience. This was already a completely new

factor in mental development, not known to the animal world. Another means of transmitting public experience was speech, first oral, and then written. Thanks to speech, the experience and knowledge of all people can become the property of everyone and be passed on from generation to generation.

The child in the process of education and training takes possession of the legacy created by all previous generations.

Human consciousness is determined by social being. Consciousness changes following the change in the economic or production relations of people, that is, those relations that people enter into among themselves in the process of struggle with nature to satisfy their needs, in the process of production activity. "History shows," says Comrade Stalin, "that if at different times people were imbued with different thoughts and desires, the reason for this is that at different times people fought differently with nature to satisfy their needs, and, in accordance with this, their economic relations developed in different ways. " Human consciousness was distinguished by some features in the era of the primitive communal system, when people fought nature together, when they did not know private property. It acquires other features with the advent of private ownership relations, when a division of society into classes occurs and the class struggle between the exploiters and the exploited is the main feature of the social system; this is the case under the slave, feudal and capitalist system.

In class: society, the psychic traits characterizing typical representatives of certain classes are a consequence of

the place this class occupies in production. It is impossible, for example, to understand and scientifically explain the most important psychic features of such heroes of "Dead Souls" as Sobakevich, Korobochka, Plyushkin, if you do not proceed from their class nature, if you look at them only as people "in general", without taking into account that it is the Russian landowners of the 30-40s of the XIX century. One cannot understand the psychology of Gorky's heroes if one does not see in them representatives of certain classes of the bourgeoisie (for example, members of the Artamonov family, Yegor Bulychev), the working class (Pavel Vlasov, Nilovna and other characters in the novel Mother).

The greatest historical revolution—the Great October Socialist Revolution—ushered in the deepest changes in human consciousness. With the transition to the Soviet system, a new stage begins in the historical development of man, now freed from the enslaving private property relations. The spiritual image of Soviet man is qualitatively different from the image of representatives of various classes of capitalist society. In our country, in which the construction of socialism is being completed and the transition to communism is being carried out, the greatest restructuring of people's consciousness is taking place.

"Today we are not what we were yesterday," comrade Zhdanov said, "and tomorrow we will not be what we were today." We are not the same Russians as we were before 1917, and Russia is not the same with us, and our character is not the same. We have changed and grown along with the greatest transformations that fundamentally changed the face of our country."

The historical development of consciousness never proceeds as a smooth, even, calm process. In the process of development, there is always a struggle between the old and the new, obsolete and developing, remnants of the past and the embryos of the future. It should be borne in mind that the primary, initial is the change in the social relations of people, and the secondary, derivative is the change in their consciousness. "... First, external conditions change, first the position of people changes, and then their consciousness changes accordingly" (Stalin). This change of consciousness does not occur immediately. Even after the new features of consciousness have been clearly defined, when they have become characteristic, leading features, relics of the past in consciousness continue to make themselves felt for some time, and the struggle with these remnants can take very sharp forms.

Unfolded in 1929-1930. the mass entry of peasants into collective farms and a sharp turn of the Soviet regime from a policy of restricting the kulaks to a policy of liquidation, its destruction as a class marked a profound revolutionary revolution, the transition of society to a new qualitative state. The consequence of this was the deepest changes in the psychology of the peasants. These shifts are clearly shown by M. A. Sholokhov in the novel "Virgin Soil Upturned". From the point of view of the struggle of the old and the new in the minds of the peasant, in the transition from a sole proprietorship to a collective farm, the image of Kondrat Maydannikov is especially instructive.

Kondrat Maydannikov is a middle peasant. He was one of the first to apply to the collective farm and at a meeting where the issue of organizing a collective farm on the Gremyachy Log farm was discussed, and he fervently called for others to do so. But the transition to a new life was also associated with a great internal struggle.

“The collective farm was not easy for Kondrat! With a tear and with blood, Kondrat tore the umbilical cord, connecting it with property, with bulls, with his native land share...” Kondrat no longer believes in God, but believes in the Communist Party, which leads the working people of the whole world to liberation, to a blue future. He brought all the cattle to the collective farm bases ... He is for only the one who works to trample the bread and trample the grass. He firmly, inseparably rooted in the Soviet regime. But Kondrat does not sleep at night ... And he does not sleep because he remained in him the pity of an adder for his good...”

He is a fan of public, collective farm property, he shows an example of a new attitude to work: he was the first on the collective farm to receive the honorary title of drummer. But he still cannot completely abandon the remnants of private property psychology. “I’m walking past the horse looms,” he thinks in heavy, sleepless nights, “the horses of others are standing,” I’m at least something, but as soon as I get there, I will look at his back with a black belt to the turnip, on the labelled left ear, and here it’ll suck in the breasts ... And you strive to throw him after the Sentz, popreist, smaller.”

The most remarkable thing about Kondrat Maydannikov is his deeply conscious attitude to the surviving vestiges

of private property psychology, his passionate desire to fight them and overcome them. When the secretary of the Gremyachenka cell of the CPSU (b) invites him, the best drummer on the collective farm, to join the party, he refuses, considering himself still unworthy of the high rank of party member: "Since I have not renounced property, it means that the conscience does not allow me in the party to be. As I understand it". Such an attitude to relics of the past in their psychology is the best guarantee of victory over these relics.

In the 35 years that separate us from the Great October Socialist Revolution, the consciousness of Soviet people has radically changed. "It should be recognized that the most important achievement of our revolution is the new spiritual image and ideological growth of people as Soviet patriots." "Now the Soviet people are not what they were 30 years ago" (Molotov).

We know that people who combine mental and physical labour are forming in the USSR, and that the psychology of the inhabitants of the city and the village is getting closer and closer.

This new spiritual appearance is conquered in a constant struggle with the remnants of the past. Mental traits of a new person do not come by themselves. They are actively brought up in the practice of building a socialist society under the leadership of the great Communist Party.

In this educational work, on the one hand, the struggle against those psychic traits that reflect the influence of capitalism and its ideology and contradict the new,

socialist system of society, and, on the other hand, a clear awareness of those new traits that contain embryos, are especially important. future, in which the psychology of the person of the era of communism is already shining through.

Addressing Soviet writers, A. A. Zhdanov said: "To show these new high qualities of Soviet people, to show our people not only on its today, but also to look at its tomorrow, to help illuminate the way forward, this is the task of every conscientious Soviet the writer."

The same task is facing Soviet psychology.

Questions to Repeat

1. What is the difference between irritability and sensitivity?
2. What is called instinct?
3. What do you know about the variability of instincts?
4. What are the individual forms of animal behaviour?
5. What determines the process of mental development of animals?
6. What are the most important differences between human consciousness and the psyche of animals?
7. What is the role of labour in the process of turning a monkey into a person?
8. What is the role of sound language in the development of mankind?
9. Indicate the structural features of the cortex of the human brain.
10. What is the teaching of I. P. Pavlov about two signal systems?

11. Indicate the main features of the historical process of development of consciousness.

12. Tell us about the development of consciousness of Soviet people.

CHAPTER III. FEEL

§ 9. General Concept of Sensations

Sensation refers to the simplest mental process that occurs as a result of exposure to the senses of objects or phenomena of the material world and consists in reflecting the individual properties of these objects or phenomena.

With the help of sensations, we learn the properties of things around us: their hardness or softness, roughness or smoothness, their severity, temperature, smell and taste, the colours of these things, the sounds that they make. In addition, sensations give us information about changes in our own body: we sense the movement and position of individual parts of our body, disturbances in the functioning of internal organs, etc.

Sensations, being a reflection of the properties of the outside world, provide material for other, more complex cognitive processes: perceptions, ideas, memories, processes of thinking. "Otherwise, through sensations," wrote Lenin, "we cannot learn anything about any forms of matter and about any forms of motion."

Material things and processes that affect the senses are called irritants, and the very process of this effect is called irritation. The process that occurs as a result of irritation in the nervous tissue is called arousal. When centripetal nerve stimulation enters the cerebral cortex, sensation arises.

The entire anatomical and physiological apparatus necessary to obtain sensation was proposed by IP Pavlov to be called an analyser. Each analyser consists of three parts: the sensory organ (receptor), centripetal nerves and corresponding parts of the brain. If any part of the analyser is destroyed, the emergence of the corresponding sensations becomes impossible. So, for example, visual sensations cease when the eyes are damaged, and when the optic nerves are cut, and when the corresponding sections of the cortex are destroyed.

It is necessary to pay attention to the fact that the term “sense organs” has a conditional meaning. It gained distribution in those days when a clear distinction between sensations and feelings was not yet made in science. Now, as we know, the word “feeling” denotes a special mental process that is significantly different from sensations. Therefore, it would be more correct to call receptors not sensory organs, but sensory organs.

In the same conditional sense, the word “feeling” is used in the expressions: “sense of vision”, “sense of taste”, “vibrational feeling”, etc., denoting the ability to have sensations of visual, taste, vibration, etc. When meeting with such designations, it must be remembered that they do not refer to “feelings” in the real sense of the word, but to feelings.

In the cerebral hemispheres, the central ends of the analysers are presented, which distinguish between external influences and internal conditions of the body. “On the highest floor of the central nervous system,” says IP Pavlov, “we have the ends of the finest and infinitely diverse analysers.” The brain end of the

visual analyser is located mainly in the occipital lobe of the cortex, and the auditory analyser is located mainly in the temporal lobe.

§ 10. Types of sensations

All sensations can be divided into two groups:

1) Sensations that reflect the properties of things or phenomena that are outside of us. The organs of these sensations are located on the surface of the body or close to it.

2) Sensations reflecting the movements of individual parts of our body and the condition of our internal organs. The organs of these sensations are located deep in the tissues (for example, muscles) or on the surface of internal organs (for example, in the walls of the stomach, respiratory tract).

The first group includes sensations of visual, auditory, olfactory, taste and skin.

1. Visual Sensations.

The irritant for the organ of vision is light, that is, electromagnetic waves having a length of 390 to 800 nanometres (a nanometre is a millionth of a millimetre).

Everything that we see has any color. Only an object that is completely transparent and, therefore, invisible, can be colourless. Therefore, we can say that visual sensations are sensations of colours.

All colours are divided into two large groups: achromatic colours and chromatic colours. Achromatic colours include white, black, and all grey; chromatic colours include all others, i.e., red, yellow, green, blue with all kinds of shades.

2. Auditory Sensations.

The stimulus for the organ of hearing is sound waves, i.e., longitudinal vibrations of air particles, propagating in all directions from the sound source.

In sound waves, they distinguish: the frequency of the oscillations, the amplitude, or range, the oscillations and the form of the oscillations. Accordingly, the auditory sensations have the following three sides: the pitch of the sound, which is a reflection of the oscillation frequency, the volume is the reflection of the amplitude of the vibrations, and the timbre is the reflection of the form of the vibrations. Our hearing organ is sensitive to vibrations ranging from 16 vibrations per second to 20,000 vibrations per second. Oscillations with a frequency of more than 20,000 vibrations per second, inaccessible to our hearing, are called ultrasound.

Sounds by the nature of the sensations they cause are divided into musical sounds (the sounds of singing, musical instruments, tuning forks) and noises (all kinds of squeaks, rustling, knocking, crackling, rumble, etc.). Speech consists of both musical sounds (mainly in vowels) and noises (mainly in consonants).

3. Olfactory Sensations.

The olfactory organs are the olfactory cells located in the upper part of the nasal cavity. Irritating to the olfactory organ are particles of odorous substances that penetrate the nose with air.

4. Taste Sensations.

Irritants for the organ of taste—taste buds—are taste substances dissolved (in water or saliva).

Taste sensations have four different qualities: sweet, sour, salty and bitter. The variety of tastes of various dishes depends to a large extent on the addition of olfactory to the taste sensations. If the sense of smell is completely excluded, the taste of tea, coffee and quinine in the corresponding solutions becomes the same.

5. Skin Sensations.

The skin, as well as the mucous membrane of the mouth and nose can give sensations of four types: a) sensations of touch, or tactile sensations, b) sensations of cold, c) sensations of heat and d) sensations of pain. Some points of the skin give only tactile sensations (touch points), others only sensations of cold (points of cold), still others only sensations of heat (points of heat), fourth only sensations of pain (points of pain). It is easy to verify the existence of cold points by a simple experiment. To do this, use the tip of a pencil, gently touching the skin, slowly hold it over the closed eyelids; from time to time you will get an instant feeling of cold.

The sensitivity of different skin areas to each of these four types of sensations is different. Sensitivity to touch is most at the tip of the tongue and at the tips of the fingers, that is, at the most mobile organs; the back, for example, is very sensitive to touch. Pain sensitivity is distributed quite differently: the skin of the back and cheeks is the most sensitive to pain, and the skin on the fingertips and on the palm is the least sensitive. Thus, those areas of the skin that we use most for palpation are the least painful; they are most “hardened” against pain. As for the sensations of warmth and cold, the parts of the skin that are usually covered with clothing are most sensitive to them: the skin of the lower back, abdomen, chest.

The second group includes motor sensations, a sense of balance and organic sensations.

1. Movement Sensations.

Their receptors are located in the muscles, tendons and on the articular surfaces. Motor sensations provide signals about the degree of muscle contraction and about the position of our members, for example, how much the arm is bent in the shoulder, elbow or wrist joint.

The combination of skin and motor sensations resulting from the palpation of objects, i.e., when a moving hand is touched by them, is called touch. The organ of touch is the hand with all its skin, muscle and articular receptors. The hand as the organ of touch first appears in monkeys, but it only reaches a person's full development, becoming his tool.

Skin sensations per se signal only about the fact that the object touches the body and the place of this touch. When a fly sits on our forehead, we easily notice this, but just as easily can be misled and take the touch of a straw, brush, blade of grass or piece of paper as a fly. In order to more accurately determine the properties of an object touching the skin, its hardness, softness, roughness, smoothness, shape, shape, etc., you need to feel it. For example, the sensations of hardness and softness depend mainly on what resistance the body exerts when pressure is exerted on it; therefore, it is impossible to determine the degree of hardness or softness of objects without the participation of motor sensations.

2. Feelings of Balance.

Their receptors are in the inner ear and give signals about the movement and position of the head. These sensations play an extremely large role in the flight business; therefore, when determining the suitability for the work of a pilot, the activity of these bodies is always tested.

3. Organic Sensations.

Their receptors are located in the walls of most internal organs: the oesophagus, stomach, intestines, blood vessels, lungs, etc. Organic sensations include hunger, thirst, satiety, nausea, internal pain, etc. So far we are completely healthy, well-fed, in general, when the work of internal organs is normal, we do not notice almost no organic sensations; they mainly give signals about violations in the work of internal organs. Studies of the

Pavlovian school, primarily the work of K. M. Bykov, showed that impulses directed to the cortex from internal organs, not clearly recognized, underlie the general “well-being” of a person. Internal analysers monitor, check the chemical composition and blood pressure, the condition of organs and their work; however, they may temporarily communicate with analysers.

§ 11. Sensitivity and Thresholds

Sensitivity, as we know, is the ability to have sensations. It should be distinguished: absolute sensitivity and sensitivity to discrimination. Absolute sensitivity means the ability to feel weak irritations, and sensitivity to discrimination—the ability to sense weak differences between irritations.

Not every irritation causes a sensation. We don't feel the touch of dust falling on our skin, we don't hear the ticking of a pocket or wristwatch from the other end of the room. In order for a sensation to arise, it is necessary that the force of irritation reaches a certain value. This minimum amount of irritation, giving a barely noticeable sensation, is called the absolute threshold of sensation. Irritations, the value of which lies below the threshold, do not give a sensation.

The smaller the threshold value of sensation, the greater the absolute sensitivity to these stimuli. If one person for the first time feels a touch at a pressure of $3 \text{ g per } 1 \text{ mm}^2$ of the skin surface, and another needs $6 \text{ g per } 1 \text{ mm}^2$ for this, then this means that the threshold of tactile sensations in the second is twice as much, and the absolute sensitivity is half as much as in first.

The absolute sensitivity of our senses is extremely high. In relation to vision, for example, S. I. Vavilov experimentally showed that under the most favourable conditions the eye is able to sense radiant energy equal to only a few quanta. Assuming complete transparency of the atmosphere, we could see from a distance of 1 kilometre a light source equal to thousandths of a candle. No physical device has such a sensitivity to light. The sensitivity of our sense of smell, which detects the presence in the air of such quantities of matter that cannot be discovered by any chemical analysis methods, is unusually high. It's enough, for example, to have one hundred millionth of a milligram of artificial musk in a liter of air so that we can smell.

With regard to sensitivity to discrimination, then to characterize it use the value of the threshold of discrimination.

If we put on our hand a load of 100 g and then add another 1 g to it, then no one can feel this increase. To notice an increase in sensation, it is necessary to add at least 3-4 g to a load of 100 g. That minimal difference between irritations, which gives a barely noticeable difference in sensations, is called the threshold of discrimination.

The threshold for distinguishing luminous intensity is approximately $1/100$. This means that with a light intensity of 100 candles, an increase in illumination can be noticed by adding 1 candle.

The threshold for distinguishing sound strength is on average $1/10$. So, at least 10 singers must be added to a

choir of 100 people in order to get a barely noticeable amplification of sound.

The thresholds of discrimination are well explained by the data established by I.P. Pavlov, regarding the nervous processes occurring in the cortical part of the analyser. Due to the irradiation of excitation along the cortex, the action of a certain stimulus at first does not differ from the action of other stimuli similar to it. The gradually increasing ability to distinguish sensations (differentiation, according to Pavlov) is explained by the concentration of the excitation process in the cortical part of the analyser; differentiation is based on the inhibitory process - "first drowning out the broadly excited brain end of the analyser, excluding its smallest part corresponding to this conditioned stimulus". Such inhibition, which helps to distinguish between similar stimuli, was called IP Pavlov differential inhibition. In this way,

Both absolute sensitivity and sensitivity to discrimination are not constant. They vary depending on different conditions. Most important are the following three reasons for the change in sensitivity. Firstly, sensitivity changes under the influence of stimuli acting on the senses. Secondly, it can change under the influence of other simultaneous sensations. Thirdly, finally, it changes depending on living conditions and, first of all, on the requirements of the activity that a person is engaged in. Now we will examine in more detail the effect of each of these causes.

§ 12. Adaptation

If sufficiently strong stimuli act on the sensory organs for some time, then sensitivity to these stimuli gradually decreases. If stimuli are very weak or absent altogether, sensitivity increases. Such a change in sensitivity under the influence of stimuli acting on the senses is called adaptation.

In some types of sensations, adaptation is very strong, in others it is very insignificant. Strong adaptation is observed in tactile, temperature, olfactory and visual sensations, weak in auditory and pain sensations.

Tactile sensitivity with a touch of skin that lasts for some time decreases very quickly. The experiments showed that after 3 seconds the sensation of pressure is only $\frac{1}{5}$ of the force that it had immediately after touching. Adaptation in tactile sensations is reflected, for example, in the fact that while we are sitting motionless, we almost do not feel the pressure of the clothes. Sometimes you can observe how a person searches in vain for glasses shifted to his forehead. This happens because the skin of the forehead very quickly adapts to the pressure of the glasses and ceases to feel it.

Adaptation in temperature sensations is very strong. When, bathing, you enter the river, the water in the first instant seems cold, but after only two or three minutes it turns out that the water is not so cold at all.

Temperature adaptation is clearly revealed in the following experiment. If for 1-2 minutes you hold one

hand in hot water (40 degrees) and the other in cold (no more than 20 degrees) and then lower both hands immediately into medium-temperature water (30 degrees), then this water will simultaneously appear to one hand is cold, for the other is hot. Extremely fast adaptation occurs in olfactory sensations. Entering a poorly ventilated room from the street, in the first instant you feel a very unpleasant smell very sharply, but after a few minutes it ceases to be felt. The experiments showed that, for example, complete adaptation to the smell of iodine occurs after 50-60 seconds (the smell is no longer felt), to the smell of camphor - after 1.5 minutes, to the smell of a strongly smelling cheese - after 8 minutes. For a complete restoration of olfactory sensitivity, a break of 1 to 3 minutes is needed.

Of particular importance is adaptation in vision. Leaving the dark room in bright sunlight, in the first moments we see very poorly; strong light blinds us, and our eyes involuntarily close our eyes. But four to five minutes is enough for the vision to adapt to bright lighting and function normally. This is called adaptation to light. The reverse process—adaptation to the dark—occurs when we move from bright light to a more or less dark room. At first it seems to us that we are in total darkness; we do not see anything and can only move by touch. However, after a while it turns out that the room is not so dark at all that we can even distinguish the outlines of objects. During a stay in the dark, the sensitivity of vision increases. Accurate measurements showed

What explains such a huge increase in sensitivity?

The fact that the width of the pupil changes depending on the amount of light incident on the eye is of known importance. When moving from bright light to darkness, the pupil area increases by 17 times, and therefore it transmits 17 times more light. But this is not enough to explain the adaptation to the dark, in which the sensitivity increases not by 17 times, but by 200 thousand times.

The most important fact is that there are two kinds of photosensitive devices in the retina: cones and rods. Cones fill the central fossa of the retina, where the image of the object we are looking at falls. They have little sensitivity: to cause their reaction, you need a sufficiently strong light. We see cones in bright light; they can be called a daylight device. The rods, located mainly along the edges of the retina, are highly sensitive: they can even respond to very weak light. We see with chopsticks at night, at dusk, in general in low light; they are a night vision device. Thus, adaptation to the dark is associated with the transition from cones to vision with rods.

One should not think, however, that cones are a less perfect apparatus than sticks. True, they are less sensitive to light, and therefore cone-shaped vision is possible only in sufficiently bright light. But only with the help of cones we can see the colours and accurately distinguish the shape of objects. In deep dusk, when the wand's vision works, we do not distinguish colours—everything seems grey. Under these conditions, we also cannot precisely distinguish the shape of objects.

In purely diurnal animals, there are only cones in the retina; at night these animals do not see at all. Such, for

example, hens, pigeons. In the retina of nocturnal animals, such as owls or bats, on the contrary, there are only sticks; these animals do not see well during the day. Rare cases are observed when a person does not have a cone apparatus at all. Such people do not distinguish colours and see everything in grey, as in a photograph; in addition, they suffer from photophobia, that is, they see poorly in bright light. This flaw is called total color blindness. Partial color blindness is much more common, in which a person does not distinguish between certain colours; such partial color blindness is sometimes called "color blindness." There are such cases when the wand apparatus does not function:

Sensations with little adaptation are, as we already know, auditory and pain sensations. The sound, which lasts several minutes without interruption, does not cease to be felt, just as the smell ceases to be felt. Pain does not cease to be felt, lasting several times without change. A slight decrease in sensitivity occurs, but very slowly, so it is difficult to notice it. It does not happen in auditory sensations and anything similar to adaptation to the dark. Falling into silence, we do not experience such an increase in sensitivity, which would allow us to begin to hear after a while sounds that are a thousand times weaker than those that we hear under ordinary conditions.

True, in relation to sounds and pain sometimes something happens that at first glance resembles adaptation. We get so used to the continuous ticking of the clock in the room that in the end we don't notice it at all. In the same sense, you can get used to the pain and stop paying attention to it. But these cases have only an

outward resemblance to adaptation. My auditory sensitivity does not weaken at all from the fact that the clock is ticking in the room. It is enough for me to recall about them, for example, being interested in whether I forgot to start them in order to hear the tick with full clarity. As a result of adaptation, the sensations themselves weaken or intensify, while getting used to the ticking of the clock does not mean weakening of sensations, but only a different direction of attention. I stop noticing a monotonous noise or pain just because I stop paying attention to them, but at any moment, as soon as I want it, I can notice them again. With true adaptation, the situation is different: no matter how much I want it, I cannot see the faint light in the first moments after coming into a dark room. Adaptation depends on a change in the operation of the analysers, and it cannot be arbitrarily destroyed, paying attention to the corresponding sensations.

§ 13. Interaction of Sensations

Sensitivity to any stimulus is highly dependent on other sensations available at the moment. This dependence is very complex, and not all laws governing it have been studied at present. But one simple pattern is valid in most cases. Mild irritants increase sensitivity to other, simultaneously acting stimuli, while strong irritants decrease this sensitivity.

If I have to see some dimly luminous point in the dark, then I'll more easily see it when there are other dimly luminous points in the field of view. If there is a fairly strong light in the field of view, then this makes it difficult to see a faint light. Sensations from other sensory organs

have a similar effect on visual sensitivity: soft sounds, light taste or temperature sensations increase visual sensitivity, while very strong sounds or sudden cooling and heating reduce it.

The fact that weak stimuli increase sensitivity to other simultaneously acting stimuli is explained by the irradiation of an excitatory process that enhances excitation in the surrounding areas (irradiation, as Pavlov showed, is most significant precisely under the action of weak irritants). Stronger stimuli, due to negative induction, cause inhibition of the surrounding areas, and as a result, sensitivity to other stimuli decreases.

One of the most striking manifestations of the interaction of sensations is the contrast of sensations. After a sweet cake, the apple seems sour, and if you eat it before the cake, it would seem sweet. After saline, distilled water seems sweet. The grey rectangle on a white background seems darker than on a black one. The same grey rectangle on a red background will appear greenish, on a yellow background it will appear bluish, etc.

Due to the contrast, the sensation changes in the direction opposite to the neighbouring or previous sensations. Against a dark background, colours lighten, against a light background, they darken. Due to the contrast, the distinction between adjacent or successive sensations is enhanced. This is of great importance in the process of perception, since sensations are more sharply separated from each other.

Various cases of contrast find their explanation in the light of the teachings of I.P. Pavlov. The intensification of

the difference between stimuli is based on the induction relationship between opposing processes of excitation and inhibition. The effect of mutual induction of excitation and inhibition in the cortical part of the analyser is manifested both in cases of simultaneous contrast (simultaneous induction) and in cases of sequential contrast (sequential induction). IP Pavlov notes that “the phenomena of mutual induction completely coincide with the large group of contrast phenomena studied in the current physiology of the sensory organs.”

§ 14. Change in Sensitivity Under the Influence of the Requirements of Life and Activity

We have seen how great the sensitivity of the human senses can be. However, in fact, for most people, the development of sensations far lags behind the possibilities that are given by the arrangement of the senses.

What determines the development of sensations? - Mainly on what requirements life imposes on sensations and, first of all, the activity that a person is engaged in.

1) Auditory Sensitivity

The most important hearing function for all people is speech perception. Deafness is severe mainly because it makes it impossible to hear speech. It is not surprising that for all of us, auditory sensations develop primarily in relation to the sounds of speech, and, moreover, not to any sounds of speech, but to the sounds of our native language. Distinguishing between these sounds, starting

in early childhood, is our most important need. Therefore, it seems to us incomprehensible how not to distinguish between them. However, in reality, the difference between many sounds of speech is very small and requires very fine auditory sensitivity. We have to make sure of this for everyone who wants to properly master the correct pronunciation in any foreign language.

In Russian, for example, to understand the meaning of words, it is necessary to distinguish between hard consonants and soft consonants. Words such as “chalk” and “shallow” or “mole” and “mole” have very different meanings, but according to rumours they differ from each other only in that in one case the last consonant is hard and in the other soft. Neither in French, nor in English, nor in German language is there such a difference between hard and soft consonants. In these languages, the meaning of a word can never change from replacing a hard consonant with a soft one. These languages do not require a person to distinguish between the hardness and softness of consonants. As a result, it is very difficult for a Frenchman, a German, or an Englishman to hear the difference between a hard and soft consonant; it seems to them extremely subtle, almost elusive. And while learning the Russian language, they constantly make mistakes,

With similar difficulties, but in relation to other sounds, Russian is also encountered, learning any of the foreign languages. In French, for example, the meaning of a word may depend on whether it is pronounced e: closed or open (for example, nez—nose and net—clean). For the Frenchman, the difference between these sounds seems enormous, while the Russian needs a lot of time

and effort to learn how to “hear” this difference. In German and English, the distinction between long and short vowels, which is not present in Russian, has the same meaning.

Thus, from childhood, every person needs to develop a special hearing for the sounds of their native language, suggesting a very subtle differentiation of sounds close to each other. Good mastery of a foreign language requires that a similar hearing be developed for the sounds of that language, and this can only be achieved through the use of this language.

In the other direction, auditory sensations develop when playing music, which requires, first of all, a very subtle distinction of the relationship between sounds in height. In the process of practicing music, a musical ear is developed.

Some professions develop a very subtle sensitivity to all kinds of special sounds. So, for example, an experienced pilot hears in the sound of the engine the subtlest shades by which he judges his work, while to an outsider it seems that the engine is always noisy.

The remarkable subtlety of hearing is often observed in the blind. Many of them can determine the size of a room by how the sounds of steps or voices are heard in it; by the same sounds they judge whether the room is furnished or empty, whether there are carpets on the walls or not. Blind people recognize people well, not only by voice, but sometimes by the sound of their steps. There have been cases when the blind

distinguished tree species (poplar, acacia, oil tree) by the noise of the leaves.

Of course, the natural properties of the hearing aid in the blind are the same as in the sighted, but life requires them to better differentiate the auditory stimuli. According to rumours, they judge that the sighted can be much easier to see with their eyes, and therefore they learn to distinguish some of the subtlest shades of sounds.

2) Visual and tactile Sensitivity

In most types of human activity, vision plays a particularly important role, and therefore it is visual sensations that are most highly developed in most people. No wonder a person is sometimes called a “visual animal.” But even in the field of vision, our sensations, as a rule, are very little developed in comparison with the possibilities we have. It is known, for example, that some textile workers specializing in the production of black fabrics distinguish up to forty shades of black color where most people see only two or three shades.

In some activities, no less subtle tactile sensitivity is developed. Experienced millers can accurately determine the quality of flour using touch, and even find out in which area the wheat from which the flour is grown.

3) Olfactory Sensitivity

In the vast majority of people, olfactory sensations play an insignificant role in life. Therefore, they remain underdeveloped. However, the possibility of developing olfactory sensations in humans is very great. This is

revealed whenever a person's activity begins to demand that he be guided by olfactory sensations.

The olfactory sensations in the deaf-deaf, that is, in people who, in early childhood, lost their vision and hearing, are of utter importance. The sense of smell is the main means for them to recognize people and objects from a distance. By smell, they recognize the person who entered the room, determine whether the person of interest to them was in the room a while ago: walking along a familiar street, they smell what they are passing by now.

4) Vibration Sensitivity in the Deaf and Blind Deaf

Vibration sensations are called sensations that we receive from the entire surface of our body from air vibrations produced by moving bodies. These sensations play almost no role in our life, since we perceive air vibrations much more subtly through hearing. Therefore, under ordinary conditions, we do not even notice these sensations. But if a person loses his hearing, vibrational sensations become very important for him. There are cases when people who are completely deaf show a great love for music, although they cannot hear a single sound. Some of them prefer playing the piano and, in order to perceive music, put their hand on the instrument cover. Others are more likely to "listen" to the orchestra and, while attending concerts, sit with their backs to the stage, since with their backs they best perceive air vibrations.

Even more important are the vibrational sensations of the deaf-blind, especially those of them that are deprived of

smell. The deaf-blind with the help of vibrational sensations perceive a knock on the door, they recognize when someone enters the room, they can even recognize friends they walk; on the street, with the help of vibrational sensations from a distance, they notice the approach of a car. Some of the deafblind people manage to talk from the other end of the room with the help of Morse code, knocking their feet on the floor; they feel vibrations and understand everything that is transmitted to them.

All of us have the same opportunities for developing vibrational sensations, but they usually remain unused, since in similar cases we use other, more advanced sensory organs.

5) The Development of Sensations

So, with a healthy state of the senses, it is possible to achieve an extreme subtlety of sensations. To do this, we must set ourselves tasks that necessarily require high sensitivity in some form of sensation. By practicing such activities, we can achieve significant results in a relatively short time.

Of particular importance from this point of view is the art. Painting, drawing, performing all kinds of artwork are the most powerful means for the comprehensive development of the functions of vision. Sculptural works develop along with visual and tactile sensations. Classes in music lead to a subtle development of musical hearing, and classes in fiction, poetry, and theatrical art raise the “speech ear” to a great height. A person with a high

culture in the field of art usually has well-developed sensations.

Questions to Repeat

1. What is called sensation?
2. What is the difference between the terms “irritation” and “agitation”?
3. What are the two groups of sensations shared?
4. List the types of skin sensations.
5. What sensations are called motor sensations?
6. What is called touch?
7. What is called the absolute threshold of sensation?
8. What is the threshold of discrimination?
9. How to explain the thresholds of distinction in the light of the teachings of IP Pavlov?
10. What conditions affect the sensitivity?
11. What is adaptation?
12. Indicate the differences between rod and cone vision.
13. What patterns of interaction of sensations do you know?
14. What is the physiological nature of contrast phenomena?
15. What determines the development of sensations?

CHAPTER IV. PERCEPTION

§ 15. General Concept of Perception

Our sensory organs are always affected by a huge amount of annoyance, and a significant part of them lies above the threshold. Thus, we always have many sensations that reflect the individual properties of things. Based on these sensations, the perception of objects and phenomena of reality surrounding us is formed.

Perception is the mental process of reflecting objects or phenomena of reality that are currently acting on our senses.

The most important feature of perception is that it always reflects things, objects, phenomena, and not just their individual properties and signs. Under ordinary conditions, we see no colours and no spots of light and shadow; we see certain objects. We hear not just sounds of different heights, loudness and timbre; we hear a man's voice, the sound of rain, the cries of children playing, the sounds of a tram.

Let's read a few lines from the description of the spring night in the Notes of the Hunter by Turgenev.

"Do you know, for example, what a pleasure to leave in the spring before dawn? You go out onto the porch ... In a dark grey sky here and there the stars blink; from time to time a humid breeze comes in a light wave ... the trees make a faint noise, drenched in shadow ... The attentive

ones cluck, snort and dapper cross their feet; a pair of just awakened white geese silently and slowly moving across the road. Behind the fence, in the garden, a watchman snores peacefully. “

Here, as it were, a report is given that a person who went out onto the porch at the end of a spring night. A lot of sensations - visual, auditory, temperature, tactile, etc. - arise at him at this moment. But in the description of Turgenev, we are not talking about these sensations, but about those objects and phenomena that are perceived through these sensations: about stars in the sky, trees, swing, a pair of geese, a snoring watchman.

Take the phrase: “A humid breeze occasionally runs in a light wave.” How does a person know about the incident waves of the breeze? Of course, from a number of different sensations. The most important role here is played by skin sensations - light touch sensations in combination with sensations of cold in open areas of the skin (face, hands); try to blow yourself into your arms and you will get this characteristic combination of sensations of touch and cold. These skin sensations are joined by the olfactory - a slight smell of dampness (“wet” breeze), the auditory ones — the noise of trees shaken by the wind, and perhaps the visuals — the weak movement of dark spots, like the silhouettes of trees in the dark. All these sensations, standing out from the mass of other sensations, form an integral image of the “incoming wave of a wet breeze”.

The same is with the perception of other objects. From a certain group of visual and auditory sensations, an image of tight-fitting, cringing, sniffing and crossing legs is

created; Moving dark spots of a certain shape in combination with a very complex group of peculiar sounds, a person perceives as the movement of contiguous. On the basis of another group of visual sensations, the perception of a pair of geese is built; seeing light spots of a characteristic shape, moving in a certain way, a person recognizes geese. Another group of visual sensations forms the perception of the wattle fence enclosing the garden. Hearing characteristic sounds coming from the same side, a person recognizes the snoring in them.

As a result of perception, an image of an object or phenomenon arises in consciousness. This image of perception is always based on sensations, but, however, it does not come down to a simple sum of these sensations. Any perception implies this or that understanding, comprehension of this image.

A characteristic feature of perception is the naming of perceived objects or phenomena, i.e., the inclusion of a second signal system in the perception process. It is with the help of speech, thanks to verbal notation, that we usually perceive objects so easily and instantly, we recognize and understand them.

It is easy to understand what important role a person's past experience plays in the process of perception. Anyone who has never seen geese other than in the picture hardly recognizes them immediately, and even at night; he will see something bright, moving across the road, and wonder what it could be.

We see, therefore, that perception is a very complex process, which is based on the selection of a certain group of sensations, combining them into a holistic image, a certain understanding, or conceptualization, of this image and recognition of the corresponding object or phenomenon.

Without recognition, meaningful perception is impossible. If I say that, having met a friend on the street, I did not recognize him, this does not mean that in this case there was no recognition. After all, in any case, I learned that this is a man, a man dressed in a coat, etc. This kind of recognition is called non-specific recognition. With nonspecific recognition, we can only determine which category of objects a given object belongs to: this is a person, this is a table, this is a passenger car, but we do not recognize the individual features and characteristics of this very object. If we recognize precisely the individual traits of a given person or a given subject, then specific recognition takes place; I learn that this is the same person I met on the train the other day, I recognize my coat among many other clothes in the theatre's wardrobe.

§ 16. The physiological basis of perception

Since perception always includes sensations received from different senses, the physiological processes underlying perception include excitation processes that begin in the senses under the influence of objects from the outside world and are transmitted through centripetal nerves to the cerebral cortex. Depending on which analyser reflects objects and phenomena of the external world or which analyser is the leading one, perceptions

are divided into visual, auditory, motor, skin, taste and olfactory.

Experiments on the study of conditioned reflexes showed that when the analyser is not systematically stimulated by an isolated stimulus, but by a combination of stimuli (for example, a series of stimuli presented at a certain pace), the response begins to depend not on the individuality of each stimulus, but on the peculiarity of their connection, their correlation. So, in some experiments, a sound stimulus was used, interrupted a certain number of times per minute; it turned out that the reflex developed for such an intermittent sound does not depend on which sounds are used in this case. The same thing was observed with light stimuli, when a reflex was developed for the ratio between stimuli: some light signals could be replaced by others presented with a certain frequency. This phenomenon was called IP Pavlov's reflex to attitude.

The connections between the individual stimuli that were revealed in the study of reflexes to relationships play a significant role in the processes of perception. The formation of such connections in the auditory analyser makes it possible to recognize the melody by the ratio of the sounds included in it, despite the difference in their absolute height and strength. The formation of such connections in the visual analyser provides recognition of the contours of the figure, regardless of size, color, etc. Thus, the perception of integral objects includes the perception of the ratio of stimuli.

In addition to the processes occurring within a single analyser, the relationship of the analysers to each other

is of great importance. The role of temporary connections in the process of perception can be shown by the example of visual perception of a quantity.

The visual perception of the size of an object depends primarily on the magnitude of the image of the object on the retina. The subject, twice as long, will give a twice as long image on the retina. However, this is only the case with the perception of objects equally distant from the eyes. According to the laws of optics, the magnitude of the image of an object on the retina changes depending on the distance to the object. For example, an object twice as long, but located twice as large, will give an image of the same length as an object twice as short but twice as close. How do we manage to accurately perceive the size of objects located at different distances?

Turns of the eyes are essential for the process of visual perception. When the gaze is transferred from a distant object to a close visual axis of the eyes, they are reduced, and the eyes turn inward. In the case of the inverse translation of the gaze from a close object to a distant one, the separation of the visual axes takes place - the eye turns outward. Eye turns are caused by contractions and relaxation of the eye muscles; motor sensations arising at the same time, which we usually don't notice, play an important role in the perception of the size of an object.

It is also important that the shape of the lens changes when approaching and removing objects. This is again achieved by contraction and relaxation of a particular

muscle, which is associated with some sensations that we usually do not notice.

The visual perception of the magnitude is carried out due to the formation from early childhood of a strong connection between irritation from the retina, as well as irritation from the muscles that establish the direction of the eye, and from muscles that change the curvature of the lens in relation to distance. The neural connections in the cortex that underlie visual perception are developed gradually through a long experience starting from the first months of our lives.

The neural connections that underlie the visual perception of magnitude are, in their origin, a conditioned reflex. This complex conditioned reflex is developed in early childhood, when acquaintance with the actual size of objects also occurs through palpation; tactile irritations thus play a role of reinforcement.

Using the example of visual perception of a quantity, it is clearly seen how, thanks to the formation of stable nerve connections that underlie perception, it is possible to cognize in the external world properties that are not accessible to individual sensations.

§ 17. Analysis of the process of perception

1) The Selection of an Object in Perception

As we have seen, the most important in the process of perception is the separation from the entire set of sensations of a certain group of them related to this object.

I look out the window into the street and notice in the crowd walking along the sidewalk my acquaintance. I'm starting to follow him. Then the figure of my friend becomes an object of perception, and everything else that I see on the street: houses, a pavement, a moving crowd, cars driving, forms the background from which this object stands out.

In the lobby of the theatre, I'm talking with someone. Against the background of many voices, the noise of the steps of hundreds of people and other sounds, the speech of my interlocutor stands out for me as an object of perception.

In the vast majority of cases, the selection of an object from the background is done without any difficulty, instantly, "by itself". However, such conditions are possible under which the selection of an object becomes a difficult task (...). One of the most important conditions for good observation is the ability to easily and quickly distinguish objects that are important for the observation from the background.

The selection of an object is based on certain groupings of spots and lines in the visual perception, sounds in the auditory perception, etc. Such a combination of individual elements in groups depends on a number of conditions. In visual perception, distance plays a significant role: closely spaced elements are combined into one group. (...) No less significant is the similarity of color. (...) The camouflage colouring with spots of different colours is based on this principle: as a result of "falling off to the background" of some spots, the shape of the object seems distorted. However, factors of a

different kind are much more important for the results of grouping. With a cursory glance at the room, I immediately distinguish between tables, chairs, cabinets, paintings, etc. as separate, independent things. But here I am guided mainly not by the proximity of the individual perceived spots to each other and not by their similarity in color. The table leg can be very close to the legs of the chair and have the same color with them. And yet it does not unite with them, but with the other legs of the same table, although they are much further away from it, and with its lid, although it is upholstered in green cloth and, therefore, is not at all similar in color to the legs. Separate spots in the field of view are combined with each other on the basis that they correspond to separate parts of the same subject. And this is possible only because our perception is meaningful. and with its lid, although it is upholstered in green cloth and, therefore, is not at all similar in color to the legs. Separate spots in the field of view are combined with each other on the basis that they correspond to separate parts of the same subject. And this is possible only because our perception is meaningful. and with its lid, although it is upholstered in green cloth and, therefore, is not at all similar in color to the legs. Separate spots in the field of view are combined with each other on the basis that they correspond to individual parts of the same subject. And this is possible only because our perception is meaningful.

Looking at the room, I comprehend everything that I see. I understand a long brown spot of a certain shape as a leg of a table, and as a result, it combines with spots corresponding to other parts of the same table. Such semantic groups, which play a central role in our perception, are possible only on the basis of

acquaintance with objects, which we gradually acquired, starting from the very first years of our lives.

2) The Value of Past Experience for Perception

The content of perception is much larger than the content of present sensations, because in the process of perception an important role is played by the communication systems that arose in past experience.

Looking at the marble of a table or window sill, I perceive its surface as solid and cold. But neither hardness nor cold can be seen. These properties are recognized only by tactile and temperature sensations. Without touching the marble, of course, I can not get these sensations. But in the past I have received them many times by touching marble. As a result, I formed a strong connection between the appearance of marble and those properties of it that are recognized by touch. In exactly the same way, looking at the fur, I perceive its softness, hairiness, warmth. It is known that some things “look” heavy, others light, although vision alone cannot produce feelings of heaviness or lightness. All this happens due to the revival of the nerve connections that arose in the past experience, reflecting the totality of the properties of the object.

The significance of the temporary connections that arose in past experience is very vivid in the reading process. As the exact experiments show, we can simultaneously see with complete clarity no more than six or seven letters of the usual printed font, since the images of the remaining letters no longer fall into the central fossa of the retina, giving a clear vision of objects. However, every person

easily reads familiar words in 10-12 letters when they are shown for only one tenth of a second. He clearly sees only a part of the letters, the rest are added by virtue of the developed ties.

To conduct such experiments, they use special devices called tachistoscopes (from the Greek words: “tachistos” - the fastest, fastest, and “scopeo” - I look). These devices allow you to show a card with the letters depicted on it, words, drawings, pictures, etc. for any short period of time, starting with a thousandth of a second.

The ability to correctly read a long word, having managed to catch only a few letters, is explained by the fact that in the case of firmly fixing the underlying temporal connections in the cortex, a corresponding dynamic stereotype is formed in the cortex. The dynamic stereotype facilitates the process of perception and allows you to read the word even with an incomplete set of ordinary stimuli, sometimes only by a few letters of the word. Expecting the appearance of a familiar word, we immediately “grasp” it, for the system of nervous processes is already prepared for the corresponding stimuli by repeating the sequence of these stimuli in a past experiment.

If a new sequence of stimuli, falling onto the system of nervous processes that developed in the past experience that came into excitement, does not completely correspond to it, then perception errors may occur. For example, waiting for the appearance of a certain word, we may mistakenly “recognize” it in a word with an incomplete set of letters or with a permutation of letters.

If you show in a tachistoscope the following meaningless set of letters: “electrical”, then most people will read the word “electricity”, and moreover, they will be firmly convinced that they perceived this word. Obviously, the image of the word “electricity” arose in this case on the basis of a system of temporary connections that had become established in past experience, on the basis of a strong dynamic stereotype.

§ 18. Illusions

Illusion is an incorrect, distorted perception.

We will get acquainted with some illusions that are caused by certain laws of sensation and perception and arise under these conditions in all or most people.

1. Illusions of contrast. In addition to the examples given in paragraph 12, we also point out cases where an object seems larger due to its proximity to smaller objects, and less - due to its proximity to large ones. In fig. 11 the middle circles are actually equal, but seem different, because one is surrounded by larger circles and the other by smaller circles.

2. Revaluation of the upper part of the figure. When dividing a vertical line by half in half, an inexperienced person almost always makes a mistake by pointing the middle too high. In printed numbers 3 and 8, the upper half appears to be the same as the lower half, while in reality it is smaller; this can be easily verified by turning the book over.

3. Transferring the properties of the whole figure to separate parts of it. The segment included in the composition of a large figure seems longer than its equal segment, which is part of a small figure.

4. The apparent change in the direction of the line and the distortion of the shape of the figure under the influence of the direction of other lines. In fig. 13 and 14, the parallel lines appear to be non-parallel under the influence of the direction of the lines adjacent to or intersecting them. Fig. 15 and 16 show how the shapes of the square and the circle are distorted by the lines intersecting them.

In illusions, our understanding, comprehension of the lines and figures we see, can be of great importance. In some cases, it can cause an illusion, in others it can destroy it.

In fig. 17 all three columns are the same in size, but the right one seems larger than the left. This happens because we understand this picture as an image of columns gradually moving away from us, and from experience we know that with sufficient distance, the apparent size of the object should decrease. We know that in the drawings, distant objects are depicted smaller in size. If in this figure the distant column is drawn in the same size as the close one, then, obviously, we assume that it depicts a larger column. Here, a certain understanding of the meaning of the picture causes an illusion.

We give the opposite case. There is one widely known illusion: segments of a straight line intersected by two

parallel lines do not seem to be a continuation of each other. In fig. 18 segment CD is the true continuation of the segment AB. But it seems to be shifted downward, and the continuation of AB seems to be more likely to be a segment of EF. However, we need to supplement the figure so that the segments AB and CD acquire a certain meaning - they began to be understood as parts of one rope that two people pull in different directions, and we begin to see them as a continuation of each other (Fig. 19). The illusion disappears. Here, a certain understanding of the meaning of the picture destroys the illusion.

The truth of perception, as we know, is verified by practice. It is enough to measure the size of the middle circles in Fig. 11 or diagonals in fig. 12 to make sure that they are actually equal, that the impression of their difference, obtained at first glance at the figure, is erroneous. The study of various illusions of perception reveals the causes that in some cases cause distorted, incorrect perception of objects. And knowledge of these causes helps to combat perception errors and correct perception errors.

§ 19. Observation

A special kind of perception is observation. This is a deliberate, systematic perception undertaken for any specific purpose. Observation is the study, the study of an object, carried out in the process of perception.

The ability to observe is of tremendous value in a wide variety of fields of activity. It is enough to recall, on the one hand, the role of observation for the artist, on the

other hand, the place that observation occupies in scientific research. This skill is not given immediately, it is brought up. To acquire it, it is very useful to know what the quality of observation depends on, what conditions it is determined by. The most important of these conditions we will now meet.

Good observation requires, first of all, a clear statement of the problem. It is impossible to observe "in general" without having any specific task in front of you. Invite someone to stand at a busy street intersection and watch. An intelligent person will surely ask you what exactly he should observe and for what purpose. In other words: what is the task of observing it? The task facing the observer organizes his attention, indicates what exactly it should be directed to. We will call a good observer one who knows how to subordinate his perception to the task before him.

Observation should be as complete and detailed as possible. But the completeness of observation is not characterized simply by the amount of information collected. The observation made by an artillery observer in a combat situation will not be fuller from the fact that he will notice what plants are in the meadow and open the bird's nests in a neighbouring tree. The completeness of observation implies the ability to notice everything essential from the point of view of the task at hand. In the same sense, one must understand the requirement for detailed observation. A good observer can notice the smallest details that elude the attention of another person, but not any details at all, namely those that are significant in terms of the purpose and task of observation.

The success of the observation is highly dependent on prior knowledge of the observed object. Therefore, the best observers are good experts in this subject. Observing an agronomist for young seedlings will be more effective the more he knows about the sown variety of seeds, the nature of the soil, and those agricultural techniques that can be used. In order to successfully conduct observation, one must be well prepared for it. Knowledge not only gives a person the opportunity to think deeper and more meaningfully; they also give him the opportunity to perceive things deeper and more meaningfully. Who knows a lot, he knows how and see a lot in things. A knowledgeable nerd will discover a lot of important and interesting in an inconspicuous blade of grass in which an uninformed person will not see anything worthy of attention.

Observation should be systematic and systematic. If you ask a student of eight-nine years old to list the objects that are in the room, he will immediately begin to call what first catches his eye, snatching from one or the other corner of the room. This is an example of unsystematic and unplanned observation. Obviously, in this way you can never compile an exhaustive list. An adult, having received the same offer, acts in most cases differently. He outlines a plan, system or observation procedure: "I will start from the door and first I will call what stands along the walls", or: "first I will list all the large things - tables, cabinets, sofas, then what stands on them, then what hangs on the walls. " With more complex and substantive tasks, the observation plan will be correspondingly more complex.

A characteristic feature of observation is the connection of perception with the active work of thinking. No wonder observation is sometimes called “thinking perception” or “thinking perception”.

Cognitive activity in the process of observation is most clearly manifested in the comparison of observed things. Comparing this object with another, it is easier to grasp its essence, to understand what category of things it belongs to and what its originality is.

Of great importance for observation is the verbal formulation of the results of the observation. The process of focused observation cannot give fruitful results if we restrict ourselves to a simple contemplation of the object. A person can often highlight a certain side, a line of an object only when he calls it, denotes it with a word.

If a person knows that at the end of the observation he must give an account of everything that he has seen and heard, the completeness and accuracy of the observation will increase significantly. This is explained by the fact that, in preparation for the upcoming report, we already in the process of observing ourselves strive to fix the content of perception with words: find the exact name of the objects that we notice, describe their distinctive features, etc. And this makes us fully comprehend the perceived facts, focus on everything essential, seek clarity and accuracy of observation. On this side, the habit that some people have during travel, when visiting museums, exhibitions, performances, and in the event of a random encounter with interesting events, is to mentally prepare a story to friends, comrades, or relatives about what they had to see and hear.

To become a good observer, it is not enough to master the art of full and accurate perception; one must also acquire the art of consolidating the results of perception, in one form or another, give a report on them.

Observation differs from simple perception in that here the leading role is played by the operation of the second signalling system. The entire observation process is based on the close interaction of the first and second signal systems.

§ 20. Individual differences in perception and observation

Having become acquainted with how complicated the process of perception is, we can easily understand that it varies in different people. Each person has his own individual “manner” to perceive, his usual methods of observation, which are explained by the general characteristics of his personality and the skills that were created in the course of his life.

We list the most characteristic signs in which individual differences in perception and observation can be expressed.

Some people tend to pay attention mainly to the facts in the process of perception and observation, while others tend to pay attention to the significance of these facts. The former are mainly interested in the description, the latter in the explanation of what they perceive and observe. Perception and observation of the first type are called descriptive, the second type—explanatory.

These typological differences are largely explained by the peculiarity of the relationship between the two signal systems. The propensity and ability to explain the type of observation associated with the relatively greater role of the second signalling system.

The difference between the objective and subjective types of perception is very significant. Objective is perception, which is distinguished by accuracy and thoroughness, which is little influenced by the biased thoughts of the observer, his desires and mood. A person perceives facts as they are, without bringing anything from themselves and resorting little to speculation. Subjective perception is characterized by opposite features: to the fact that a person sees and hears, images of imagination and various assumptions are immediately joined; he sees things not so much the way they really are, but the way he wants to see them.

Sometimes the subjectivity of perception is expressed in the fact that a person's attention is directed to those feelings that he experiences under the influence of perceived facts, and these feelings obscure the very facts from him. Often you have to meet people who, no matter what they talk about, mostly talk about their own experiences, about how they got excited, scared, moved, and very little can be said about the events that caused all these feelings.

In other cases, the subjectivity of perception manifests itself in the desire to make up as soon as possible a general impression of the observed fact, even if there were not enough data for this. This feature is clearly revealed in experiments with a tachistoscope, when a

word is shown for such a short time that it is obviously impossible to read the whole thing. The word “desk” is shown, for example. With an objective type of perception, a person reads first “cont”; at the second showing he can already read the “office” and, finally, after the third showing, the “office”. The process of perception in a representative of a subjective type is quite different. After the first showing, he reads, for example, “basket”, after the second - “castor”, after the third - “desk”.

In characterizing individual differences in perception and observation, the trait called observation is of paramount importance. This word denotes the ability to notice in things and phenomena signs and traits that are essentially important, interesting and valuable from any point of view, but hardly noticeable and therefore escaping the attention of most people. Observation is not limited to the ability to conduct observation alone. It involves curiosity, a constant desire to learn new facts and their details, a kind of “hunt for facts.” Observationality is manifested not only in those hours when a person is specially occupied with observations in the laboratory, museum, at the observation post, etc.

We call observant a person who is able to notice valuable facts “on the go”, in any situations of life, in the process of any activity. Observation assumes a constant readiness of perception.

Observation is a very important quality, the value of which affects all areas of life. It is especially necessary in some activities, for example, in the work of a scientist. No wonder the great Russian scientist I. P. Pavlov wrote on

the building of one of his laboratories: "Observation and observation."

The work of a writer-artist is impossible without observation: it enables the writer to accumulate those reserves of life impressions that serve as material for his works.

Questions to Repeat

1. What is perception and how does it differ from sensation?
2. What are the physiological foundations of perception?
3. List the conditions on which the association in groups (grouping) of individual spots and lines in visual perception depends.
4. What is the significance of past experience for perception?
5. What is called an illusion?
6. Explain the illusions shown in fig. 12 and 13.
7. What is called observation?
8. List the conditions on which the quality of observation depends.

CHAPTER V. ATTENTION

§ 21. General Concept of Attention

Attention is the focus of consciousness on a specific object. The object of attention can be any object or phenomenon of the external world, our own actions, our ideas and thoughts.

I read a book and am completely occupied with the content of the story; I hear conversations taking place in the room, but do not pay attention to them. But one of those present began to tell something interesting, and I notice that my eyes automatically run through the lines of the book, and my attention turned to conversation.

And first and then I simultaneously heard a conversation and read a book. But the organization of my mental activity was completely different in both cases. At first, my mind was aimed at understanding what was being read; the content of the book was in the centre, and the content of the conversation on the periphery, on the edge of consciousness. Then consciousness went to listen to the conversation; the conversation became the centre of consciousness, and reading the book was on the edge of it. My attention, we say, has shifted from reading a book to listening to a conversation.

As a result of the orientation of consciousness to a certain object, he is recognized clearly and distinctly, while all other stimuli acting at the same time are experienced more or less vaguely and indistinctly. At that time, when my attention was taken by the book, I

perceived its contents with full clarity, but I heard the conversation vaguely, as they say, “out of the corner of my ear”. If I were suddenly asked what the conversation was about, I would probably be able to reproduce only fragments of phrases that are little related to each other. But the matter immediately changed as soon as my attention shifted from the book to the conversation. Now I perceive the content of the conversation with complete clarity, and only vague scraps of thoughts reach me from the book, although my eyes continue to read.

In the phenomena of attention, the selective nature of consciousness is revealed: if a person pays attention to some objects, then he is thereby distracted from others.

Attention cannot be called a special mental process in the same sense as we call special processes perception, thinking, memory, etc. At any moment of one's life, a person either perceives something, or remembers something, or thinks about something, or dreams of something. But there cannot be such a moment that a person is busy with the process of attention. Attention is a property of the psyche, it is a special side of all mental processes.

§ 22. Physiological Basis and External Expression of Attention

The basis of attention is one of the most important laws of the cerebral hemispheres, studied in detail by IP Pavlov, the law of induction of nervous processes (p. 8). According to this law, any focus of excitation that occurs in the cortex of the hemispheres causes inhibition

of the surrounding areas. Thus, excitement never spreads evenly throughout the cortex. At any given moment, there is one section in the cortex in which the most favourable, or, as they say, “optimal” conditions for excitation are created. This area with optimal excitability is currently the creative department of the cortex. Associated with it is the clearest work of consciousness.

“If it were possible to see through the cranial lid,” wrote I. P. Pavlov, “and if the place of the cerebral hemispheres with optimal excitability shone, then we would see on the thinking conscious person how constantly changing in form and the size of fancifully irregular outlines is a bright spot surrounded by a more or less significant shadow on the rest of the space of the hemispheres. “ Moving along the cortex of a site with optimal excitability causes phenomena that appear in our consciousness as a change in the focus of attention.

The presence of a site with optimal excitability and the law of induction explain to us how, from the mass of various stimuli—objects and phenomena that a person encounters—many are inhibited, pushed to the background, while others are amplified, are brought to the fore. Increased excitation in the area with optimal excitability according to the law of mutual induction enhances the inhibition of the remaining sections of the cortex. Therefore, the more attention is focused on one object, the less a person notices other objects.

A strong tension of attention is usually associated with characteristic external manifestations.

Firstly, movements of an adaptive nature arise, aimed at better perceiving the object to which attention is directed; these are movements of peering, listening, etc. When attention is directed to one's own thoughts, the eyes are usually "set to infinity," that is, they are directed as if looking into the distance; due to this, surrounding objects are perceived unclearly and do not distract attention.

Secondly, all unnecessary movements are delayed. For intense attention, immobility is characteristic. The consequence of this delay in movement is that intense silence in the audience or in the auditorium of the theater, which indicates that the lecturer, speaker, artist managed to capture the attention of the audience.

Thirdly, finally, with intense attention, breathing becomes more superficial and rarer. In addition, the ratio of the duration of inhalation to the duration of exhalation changes: the inhalation becomes shorter and the exhalation lengthens. With short-term, but intense tension of attention, a complete holding of breath often occurs: a person listens or looks, "holding his breath."

§ 23. Involuntary and Arbitrary Attention

When a person watches an interesting movie in a movie, attention without any efforts on his part is directed to the screen. When, walking down the street, he suddenly hears a sharp whistle of a policeman close to him, he "involuntarily" draws attention to it. This is involuntary attention directed to a given object without our conscious intention and without any efforts on our part.

With involuntary attention, the occurrence of a site with optimal excitability in the cerebral cortex is caused by directly acting stimuli.

But when a person has to break away from an interesting book and do the necessary, but not very exciting work at the moment, for example, to learn foreign words, he has to make an effort to direct his attention in this direction, and maybe even more effort to not let attention be distracted, to maintain attention in this work. If I want to read a serious book, and the room has loud conversations and laughter, I must force myself to be attentive to reading and not pay attention to the conversations. Such attention is called arbitrary. It is distinguished by the fact that a person sets himself the conscious goal of directing attention to a certain subject and, to achieve this goal, applies, when necessary, certain efforts, efforts.

With arbitrary attention, the area with optimal excitability is supported by signals coming from the second signal system. A conscious goal, intention is always expressed in words, most often pronounced to oneself (the so-called "internal speech"). Due to the temporal connections formed in the past experiment, these speech signals can determine the displacement along the cortex of a site with optimal excitability.

The ability to arbitrarily direct and maintain attention has developed in a person in the process of work, since without this ability it is impossible to carry out long and systematic labour activities. In any matter, no matter how much a person loves him, there are always such sides,

such labour operations, which in themselves have nothing interesting and are not able to attract attention.

You must be able to arbitrarily focus your attention on these operations, you must be able to force yourself to be attentive to what is currently not attracted to you. A good employee is that person who can always focus on what is needed in the course of work.

The power of a person's voluntary attention is very high. Experienced artists, lecturers, speakers well know how difficult it is to start playing, giving a speech or giving a lecture in case of severe headache. It seems that with such pain it will be impossible to finish the performance. However, it is only by an effort of will to force oneself to start and focus on the content of the lecture, report or role, how the pain is forgotten and again reminds itself only at the end of the speech.

What objects are able to attract our involuntary attention? In other words: what are the causes of involuntary attention?

These reasons are very numerous and varied, can be divided into two categories: firstly, the external features of the objects themselves and, secondly, the interest of these objects for a given person.

Any very strong stimulus usually attracts attention. A strong thunderclap will attract the attention of even a very busy person. Of decisive importance is not so much the absolute strength of the stimulus as its relative strength compared with other stimuli. In a noisy workshop of a plant, a person's voice may go unnoticed, while amid the

complete silence of the night, even a faint creak or rustle can attract attention.

A sudden and unusual change also attracts attention. For example, if an old wall newspaper, hanging for a long time and already ceasing to attract attention, is removed from the wall in the classroom, then its absence in the usual place at first will attract attention.

The main role in attracting involuntary attention is played by the object's interest for a given person. What is interesting?

First of all, that which is closely connected with the life activity of a person and the tasks facing him, with the work that he is passionate about, with the thoughts and concerns that this work arouses in him. A person captured by some business or any idea is interested in everything that is connected with this business or with this idea, and, therefore, pays attention to all this. A scientist working on a problem will immediately pay attention to a seemingly small detail that eludes the attention of another person. One of the major Soviet inventors says about himself: "I am interested in the principles of all machines. I'm riding a tram and looking out the window, how the car is going, how it turns (then I thought about driving for the cultivator). I look at all the cars, for example, the fire escape, and I see that it can also be used. "

Of course, people are interested in not only what is directly related to the main business of their life. We read books, listen to lectures, watch plays and movies that do

not have a direct connection with our work. What is required in order for them to interest us?

Firstly, they should be related to some extent to the knowledge we already have; their subject should not be completely unknown to us. There is hardly a person who has never studied the physics of sound and does not understand anything in metal technology, may be interested in a lecture on the topic "The use of ultrasounds in metallurgy".

Secondly, they should give us some new knowledge, contain something still unknown to us. A popular lecture on the topic just mentioned will not be interesting for an ultrasound specialist, since he knows the whole content of it.

Most interesting is that it gives new information about things that we are already familiar with, especially the fact that it gives answers to questions that we already have. What is interesting is what we do not yet know, but what we already want to know. Plots of interesting, fascinating novels are usually built on this principle. The author leads the story in such a way that we are faced with a series of questions (who committed such an act? What happened to the hero?), And we constantly expect to get an answer to them. Therefore, our attention is in constant tension.

Interest is the most important source of involuntary attention. Interesting captivates, captures our attention. But it would be completely wrong to think that voluntary attention has nothing to do with interest. It is also guided by interests, but interests of a different kind.

If a fascinating book captures the attention of the reader, then there is a direct interest, interest in the book itself, in its content. But if a person, having set himself the goal of building a model of some apparatus, makes long and complex calculations for this, what interest is he guided by this? He has no direct interest in computing itself. He is interested in his model, and computing is only a means to build it. In this case, the person is guided by an indirect, or, what is the same, mediated interest.

This kind of indirect interest, interest in the result, exists in almost every work that we carry out consciously and voluntarily; otherwise we would not produce it. It is enough to get to work. But since the work itself is uninteresting, does not interest us, we must use the effort to focus our attention on it. The less the process of work interests and captivates us, the more arbitrary attention is needed. Otherwise, we will never achieve the result that interests us.

It happens, however, that the work that we first undertook due to some indirect interest and in which we first had to arbitrarily, with great effort to keep our attention, gradually begins to interest us. There is a direct interest in the work, and attention begins to involuntarily focus on it. This is the normal course of attention in the labour process. With the help of arbitrary efforts, without any direct interest in the activity itself, it is impossible to work successfully for a long time, just as it is impossible to conduct lengthy work on the basis of only direct interest and involuntary attention; from time to time, the intervention of arbitrary attention is necessary, since due to fatigue, the boring monotony of the individual stages, all kinds of distracting impressions involuntary

attention will weaken. So, the performance of any work requires the participation of both voluntary and involuntary attention, their constant alternation.

In the end, we can say: the central importance in the organization of attention is the tasks that put before us life and the activity that we are engaged in. Based on these tasks, we consciously direct our voluntary attention, these same tasks determine our interests - the main engines of involuntary attention.

§ 24. The Fight Against Distraction

A lot of effort is sometimes required to direct attention in the direction we want. But even more efforts are needed in order to maintain a sufficient concentration of attention for a long time and not allow him to be distracted to the side. The fight against distracting irritations is the most difficult of the tasks facing arbitrary attention. There is no doubt that voluntary attention, that is, the action of the signals of the second signalling system—words visible, audible and, most importantly, pronounced to oneself—can overpower the action of very strong immediate irritants.

To study the effect of strong distracting stimuli, experiments were performed in which it was necessary to perform more or less complicated mental work in the presence of very sharp interfering sounds: whistles, bells, the sound of a pipe, the rattle of a circular saw working nearby, a gramophone playing funny music. The results showed that for people with well-organized attention (especially young people), work in such conditions can be performed as quickly and as well as in a calm

environment. Those irritants that do not correspond to consciously directed attention are completely inhibited, delayed. However, the harmful effect of distracting stimuli is reflected in the fact that it takes a lot of effort to deal with them, and therefore working in such conditions is more tiring than usual. Trying to focus on work, Despite the hindrances, a person resorts to strong muscle tension, clenches his fists, sometimes clenches his head with his hands, occasionally sharply shakes his head; the majority begins in such conditions to think, reason, calculate not for themselves, but in a whisper or out loud.

What distracts most is what interests or affects the senses. The roar of cars does not interfere as much as the cheerful conversation of the neighbours, at least this conversation was whispering. For people who love and understand music, the latter is one of the most powerful distracting irritants, while people who are indifferent to music can easily not notice it.

Of great importance is the person's attitude to distracting irritations. The noise in the next room is annoying, angry, and quite often the annoyance and anger that arise at the same time distract from work much more than the noise itself. If it is impossible to eliminate the interference, you need to treat it calmly; this is the only way to combat its distraction.

For most people, the best concentration of attention is achieved in a calm environment, in solitude and silence, when there are no any strong distracting irritations. Pushkin, for example, worked best in the countryside, in the autumn and, moreover, in rainy weather, when it was impossible to either go anywhere or

wait for guests to come to him. "You cannot imagine," he wrote to his wife, "how vividly the imagination works when we sit alone between the four walls, or we walk through the woods when no one bothers us to think, to think so that our head will spin." He did not even like paintings in his office, since they could entertain attention. Tchaikovsky also sought to work in complete solitude, avoiding all kinds of interference and distractions.

However, there are quite a few people who can concentrate especially well in noisy environments, among a multitude of seemingly disturbing and distracting impressions. In his youth, Chekhov wrote many of his stories to the accompaniment of noisy conversations and laughter of a crowded society. The famous Russian composers Mussorgsky (author of the operas Boris Godunov and Khovanshchina) and Borodin (author of the opera Prince Igor) willingly wrote their compositions "in public", for example, while visiting.

Such differences in the way they work are partly dependent on the habit that has developed, mainly on the individual characteristics of attention. But whatever these features may be, attention should be brought up in such a way as to be able, when necessary, to cope with all kinds of obstacles.

The same Tchaikovsky, who was easiest to compose in conditions of complete solitude and silence, was able, however, to work in any situation if it was impossible to create the desired conditions.

One of the reasons for the low productivity of some people who are extraordinary in their abilities is pampered, spoiled attention, not able to cope with the action of distracting irritations. The whole life of such people goes in vain waiting for the moment when nothing will distract them from work.

§ 25. The Main Properties of Attention

1) Sustained Attention

We call sustained attention that is capable of staying continuously focused on one subject or on the same work for a long time. The opposite of sustained attention will be wavering attention, which is constantly weakening or being distracted to one side.

What determines such fluctuations in attention and how to deal with them?

Try for some time to stare with full attention to some stationary object, for example, a geographical map. You will not succeed.

During the first minute you will notice that your gaze involuntarily deviates to the side or that you look at the map automatically, without any attention, and think about something else. In this situation, fluctuations in attention inevitably occur in every person. Special experiments show that with aimless and passive looking at a stationary object, it is impossible to maintain the full tension of attention for more than 5 seconds.

The situation is completely different when you look not at a fixed map, but at a movie screen on which the action of the film unfolds. In this case, you can follow the course of action for a long time without any hesitation of attention.

Let's go back to the geographical map. Suppose now that you have not just set out to carefully look at it, but that you are faced with the task of comparing separate regions of the USSR with each other in terms of providing them with different types of transport. Everyone knows that in this case he can work with the card for more or less long time without any hesitation of attention.

So, frequent fluctuations inevitably occur when there are two conditions: if attention is directed to a completely unchanged, motionless object with which nothing happens, and if we ourselves are passive, we do not do any work.

Experiments show that when a person performs active work that does not allow attention to weaken or be distracted even for a few seconds, the full stability of attention can remain for 10, 15 and even 20 minutes. In practice, this is quite enough. The distraction for a few seconds after 10 or 20 minutes of continuous concentration allows the organization of all work. If such short rests are acceptable to the attention, it can remain stable for several hours.

In many activities, very stringent requirements are imposed on sustainability. Such, for example, is the work of the stenographer: if attention is diverted at least for a few seconds, an irreparable gap in the transcript will result. The corrector's work is the same: every fluctuation

in attention can lead to a misspelling error. The work of a rejecter, telephone operator, etc., belongs to the same category.

2) Volume of Attention

A very long time ago, people began to pose the question: how many objects can attention be directed at the same time? how many objects can it cover at once in one act? This is a question about the amount of attention, which is understood as the number of objects covered by attention simultaneously.

It is not easy to answer this question. When I look at the stage in the theater, my attention seems to be simultaneously occupied by many objects, especially in scenes with a large number of characters. But if you look closely at yourself, it is easy to notice that in fact attention is constantly moving from one character to another, so that it remains unknown whether it can capture more than one subject at any given moment. To answer this question, one must obviously show a person several different objects for such a short period of time that his attention does not have time to move from one object to another. (This gap should be no more than one tenth of a second.) If a person can notice, learn, perceive several objects with such a brief show, then his attention can really capture them at the same time.

For such experiments, as we already know, they use special instruments, tachistoscopes (see § 17). The results of tachistoscopic experiments have found that an adult can simultaneously grab attention with four to five, a maximum of six objects independent of each other. If

letters that are not connected with each other and do not form words are printed on the tachistoscope card, then more than six letters cannot be perceived immediately. Thus, we can say that the amount of attention usually ranges from four to six objects.

At the same time, however, one must be aware of what is meant by the “object”. For an illiterate person who does not know letters, not every letter is one object. Perhaps he will perceive the letter O as one object (a “circle”), but already the letter P will be more likely two objects for him: a “wand” and a “circle”. As a result, he can never immediately grasp not only six, but even four letters.

On the other hand, if we show to a completely literate person not separate letters, but whole words, it turns out that he can immediately perceive not six, but much more letters. A short word of three to four letters is one object for him, and therefore he can perceive three or four such words in a tachistoscope (that is, up to 14–16 letters). Well-literate people do not read letters, but immediately with whole words.

The most important means to increase the volume of attention is to develop the ability to perceive in large complexes, that is, to see a whole group of objects as a whole, as a “single object”. An increase in the volume of attention is nothing but the expansion of a site with optimal excitability. This expansion occurs due to the merger, the combination in one system of excitation processes caused by simultaneously acting stimuli.

Some activities require as much attention as possible. For example, the productivity of a typesetter

depends to a large extent on how many characters he can grab right away when looking at the text from which he is typing. Even more important is the breadth of the volume of attention when observing in a combat situation, where the possibility of long-term viewing of objects is often ruled out, but it is necessary to immediately notice, find out, count them. A large amount of attention is certainly necessary for the pilot.

The amount of attention should be taken into account when solving many practical problems. If it is necessary that the inscription on a poster or announcement can be understood even with a cursory glance, so that its meaning can be caught on the fly, then it should consist of no more than four to five words (and even that is not very long). If the inscription should be longer, it is necessary to highlight three or four main words from it (in font, color, etc.), sufficient for a person to understand what is being discussed.

3) Distribution of Attention

Can attention be distributed simultaneously between two different activities? Can it be sent in different directions at the same time? Can a person, while performing some kind of work, at the same time carefully monitor other objects or think over a question that is not related to this work?

Practice shows that the distribution of attention is possible. Moreover, life at every step requires you to distribute attention. It is impossible, for example, to record the teacher's explanations in the classroom if you do not know how to distribute attention. Teacher does not

interrupt his presentation for the time being, as I write down the thought he said. He continues to speak further, and I must, while writing down one thought, at the same time carefully listen to the further exposition. Recording always lags somewhat behind the teacher's speech, and the attention of the writer should be divided between what he is recording and what is being said at the moment.

Observations show that the ability to distribute your attention among different people is extremely different. Some can easily do two things at once, for others it is very difficult: immersed in one thing, they are definitely not able to notice anything else. To a certain extent, it depends on the individual characteristics of a person: some people have concentrated attention, others have concentrated, etc. e. tends to concentrate entirely in one direction. But since we are talking about ordinary tasks required in most activities, the distribution of attention is mainly a matter of skill, skill.

No man can do two things at the same time, if he does not know how to do one of them well, if each requires him to think about every step, attention to all the details of the execution. In order to successfully carry out two work simultaneously, it is necessary to own at least one of them so that it is carried out to a large extent automatically, "by itself", so that it is only necessary to consciously control and regulate it from time to time.

The inept person while he writes down one thought of the lecturer, hears nothing more and does not notice. The recording process is so difficult and unusual for him that it requires a full and continuous strain of attention. On the contrary, an experienced person is very little busy with

the recording process itself. At the centre of his consciousness is mainly the content of what the lecturer is saying, and he devotes only a small part of his attention to writing.

This is the basis for the distribution of attention. To be able to distribute attention means to be able, having one activity in the centre of consciousness, to devote some attention to another activity, that is, to keep it close to the centre of consciousness.

The distribution of attention is explained by the fact that habitual activity, which does not cause particular difficulties, can be controlled by areas of the cortex that are to a certain degree of inhibition. "Is it not an ordinary thing," wrote I.P. Pavlov, "that we, who are busy mainly with one thing, one thought, can simultaneously perform another thing, very familiar to us, that is, to work in those parts of the hemispheres, who are in a certain degree of inhibition by the mechanism of external inhibition, since the hemisphere point associated with our main business, of course, is then very excited?"

In all driving professions (locomotive driver, driver, car driver), the ability to distribute attention is a prerequisite. Extremely high demands on the distribution of attention are made by the work of a pilot, conductor, and teacher.

The attention of the lecturer, speaker, speaker should usually be focused on the content of the thoughts that he sets out. Without this, it is impossible to speak without a written text in front of you. But a good lecturer should pay a certain amount of attention to other subjects. He should

monitor the audience, sensitively pick up all signs of understanding or misunderstanding, interest or boredom; a lecturer who thinks only about the content of his speech and does not pay attention to the audience will never be able to interest and captivate this audience. Sometimes he should look at his watch and mentally compare the remaining time with the amount of material that he should have time to communicate; without it, he will never meet the deadline. All these objects at an experienced lecturer are located near the centre of consciousness. He doesn't lose sight of them,

Insufficient ability to distribute attention is often the cause of failures in a chess game. A person who is so inclined to immerse himself in his own plans and combinations that everything else that is happening on the board remains out of his attention, inevitably allows "yawns" and does not respond in a timely manner to the moves and combinations of the opponent. A good chess player should be able, no matter how busy he is to develop his idea, to follow the entire board, paying some attention to even its most uninteresting sections.

4) Switching Attention

From daily experience, we know that every beginning is difficult. When you write an essay or a letter, the most difficult thing is to write the first phrase. In public speaking, especially among inexperienced speakers, the beginning of speech goes much less smoothly than the continuation. One of the reasons for this is the difficulty of immediately focusing on a new job, switching your attention entirely to it. Many people need a certain period

of time in order to have time to concentrate and collect their attention on the activity to which they are starting.

Switching attention is the conscious and meaningful movement of attention from one object to another.

Attention switching is a movement along the cortex of a site with optimal excitability, mainly regulated by the signals of the second signalling system. The ability to quickly switch attention to a large extent depends on the mobility of nervous processes.

Some people can easily and quickly move from one activity to another and immediately begin to carry out it with full attention. These are people whose attention is mobile, flexible. For others, the transition from one business to another is associated with some effort: they need some time to “gather their thoughts”, “get into work”. These are people with little moving attention.

The ability to quickly switch attention is especially urgently needed in cases where you need to immediately respond to short-term and unexpected irritation. Such tasks are constantly confronted by a pilot, a driver, a train engine.

If it is necessary that at some point attention be prepared for the perception of some kind of irritation, you should first give a signal. This is done, for example, when a command is issued: the “preliminary command” serves as a signal for the “executive team”.

It is important that the signal is issued in a timely manner. If you give it too late, attention will not have time

to prepare; if given too early, attention will tire of passive expectation and there may come a “fluctuation of attention.” It is best to give a preliminary signal in 2 seconds.

§ 26. Absent-Mindedness

The word “distraction” is used in two senses. This word designates two types of carelessness, stemming from different causes. Absent-mindedness in the first sense is the weakness of voluntary attention; its consequence is extremely easy distractibility and complete instability of attention.

The weakness of the focus of excitation caused by the signals of the second signalling system determines the state when weak external stimuli distract attention. A person does not focus on anything for a long time, his attention continuously jumps from one to another. These features are observed very often in young children. Every adult can sometimes fall into this kind of distraction, for example, in a state of great fatigue. If such distraction is a constant feature of a person, this indicates the disorganization and lack of education of his attention.

A striking example of distraction in this sense is Khlestakov (Gogol’s “Examiner”). This is one of its most characteristic features. “He is not able to stop constant attention on any thought,” Gogol says about him. And Khlestakov himself is very naive, but very true, says about himself: “I have an extraordinary ease in my thoughts.” His attention at every moment is directed at what appeared before his eyes or accidentally came to

his mind, and with ease, truly extraordinary, jumps from one subject to another.

Absorption in the second sense has a completely different character. It is expressed in the fact that a person is so much focused on one subject that he is not able to notice anything else, so immersed in his thoughts that at times he ceases to be aware of the most basic things. With such distraction, of course, one cannot speak of weak attention; on the contrary, the power of concentration is very great here. But still there is a lack of attention: this is a failure to distribute attention and a poor ability to switch. Such people have strong, but narrow and slightly mobile attention.

The main reasons for this type of distraction are: firstly, the excessively inhibition of the entire cortex, except for the site with optimal excitability, and, secondly, the low mobility of nervous processes.

Akaky Akakievich from Gogol's short story "The Overcoat" is a complete illustration of distraction in this second sense. All his thoughts and interests are concentrated on one subject: rewriting papers, and his attention can never be torn off from this subject. "Not once in my life," Gogol writes, "did he pay attention to what is being done and is happening every day on the street ... But Akaki Akakievich, if he looked at anything, he saw all his clean, even handwritten lines "And only if, coming from nowhere, the horse's face was placed on his shoulder and let the whole wind blow his nostrils on the cheek, then he only noticed that he was not in the middle of the line, but rather in the middle of the street."

§ 27. Education of Attention

We know that attention is manifested throughout our mental life. Therefore, a good work of attention is a prerequisite, without which success in any activity is impossible.

The first condition for good attention is the presence of sufficiently broad and stable interests. Indeed, as we know, all attention depends on interest: involuntary - on direct interest in the activity itself, arbitrary - on interest in the results of this activity. A person who is not seriously interested in anything can hardly have a higher level of attention than Khlestakov's.

The second thing you need to develop attention is to develop the ability to force yourself to arbitrarily concentrate attention at any time and on any subject. It is necessary to make attention your obedient instrument. Not attention should be the master of man, but man should be the master of his attention.

The third way to educate attention is to accustom yourself to work in adverse conditions. Accustomed to struggle with distracting irritations, a person tempers his attention, makes him strong and hardy.

The fourth condition is never to work inattentively. It must be remembered that any inattentive work accustoms a person to be inattentive.

Finally, the last condition is that it is possible to better know the features of your attention, its strengths and weaknesses. To completely correct the drawbacks of

your attention, you need a lot of work on yourself. But one cannot begin this work without first understanding what these shortcomings are.

Questions to Repeat

1. What is called attention?
2. What is the law of induction of nervous processes and what is its relationship with the phenomena of attention?
3. Under what conditions does an object become “interesting” for a given person?
4. What is the role of involuntary and voluntary attention in the process of work?
5. How to deal with distraction?
6. Under what conditions can sustained attention span be maintained?
7. What is the difference between the concepts of “volume of attention” and “distribution of attention”?
8. What is the amount of attention?
9. Under what conditions is the distribution of attention possible?
10. What is the difference between switching attention from fluctuations in unstable attention?
11. List the most important means of raising attention.

CHAPTER VI. MEMORY

§ 28. General Concept of Memory

Temporary (conditional) connections formed in the cerebral cortex can persist for many years and decades.

In those cases when the connections that have arisen from time to time are reinforced, renewed, they can be valid throughout life.

The ability to preserve and subsequently revitalize temporary connections is a necessary basis for mental activity. Memory is manifested in recognition and reproduction.

Recognition is a manifestation of memory that is usually associated with perception. Reproduction can occur outside the process of perception.

I close my eyes and reproduce the look of my room, the street on which I live, or some familiar face. I can say a poem by heart. A pianist can play a piece of music familiar to him. I can briefly describe the contents of the previous chapter of this textbook. All these are different cases of reproduction, i.e., restoration, detection of previously formed temporary connections.

A necessary condition for recognition and reproduction is the memorization and subsequent preservation of what I perceived, thought, felt or did.

Memorization, storage, reproduction and recognition are the main processes of memory. Memorization is a condition or prerequisite for preservation in memory, and reproduction and recognition is the result or discovery that a given object is stored in memory.

So, memory is a reflection of past experience, which consists in memorizing, preserving and subsequent reproduction or recognition of what we previously perceived, experienced or did.

§ 29. Associations and Their Physiological Basis

Remembering any images, thoughts, words, feelings, movements, we always remember them in a certain connection with each other. Without the establishment of certain connections, neither memorization, nor recognition, nor reproduction is possible.

What does it mean to remember a poem? This means remembering a series of words in a certain connection, in a certain sequence. When a person learns by heart Lermontov's poem "To the Poet's Death", he doesn't try to remember separate words at all: "died", "poet", "slave", etc. — he knows these words without that; he tries to remember the sequence of these words, seeks to form a connection between them so that the words "the poet died" evoke the following words "slave of honour" in their consciousness.

What does it mean to remember a foreign word, for example, the French word "la table"? This means establishing a strong connection between this word and the subject that it denotes, or the Russian word "table". If

I know the word “la table”, then, hearing it or seeing it printed, I think of a table, and vice versa: when I see a table or the Russian word “table”, the French word “la table” appears in my mind. What does it mean, finally, when someone says: “I perfectly remember the face of such and such a person and I can always recognize him”? This means that a strong connection has formed between the face of this person and his name (or other signs characterizing him), so that when you see this person his name is remembered.

Thus, one or another connection always underlies the activity of memory. Remembering is binding. To remember an object means to associate it with any other objects. These connections that underlie the activity of memory are called associations in psychology.

If any objects are perceived, imagined or conceived simultaneously or directly one after another, then a connection is formed between them and subsequently the perception or representation of one of them can cause others to be conscious. This pattern is called the law of association.

The physiological basis of associations is the mechanism of formation of temporary neural connections, discovered by I.P. Pavlov in the study of conditioned reflexes in animals (see § 3).

Associations are formed when the corresponding mental processes are experienced simultaneously or directly one after another. The basic rule for the formation of conditioned reflexes is the same. In order to develop a conditioned reflex in a dog for separating saliva to some

stimulus, such as a bell, it is necessary that this stimulus be accompanied several times by feeding. In other words, it is necessary that the bell and feeding several times occur simultaneously or one after another: first the bell, then the feeding. Thus, coincidence in time is the main condition for the formation of both associations and conditioned reflexes.

The second most important condition for the formation of conditioned reflexes and associations is repetition. To develop a conditioned reflex to a call, you need to accompany the call a sufficient number of times, and the more often the coincidence of the time of the call with feeding is repeated, the stronger the conditioned reflex will become. This is also the case with the formation of associations. To remember the phone number, you need to repeat it several times. In order to firmly grasp the meaning of a foreign word, you need to repeat it as many times as possible, meet it more often in the text, hear it most often, and use it yourself in a conversation.

The neural connections underlying the conditioned reflexes and associations are formed when the two processes of excitation in the cerebral cortex coincide in time and are fixed as a result of repetition. These connections were called IP Pavlov temporary connections.

“Temporary nervous connection,” wrote IP Pavlov, “is a universal physiological phenomenon in the animal world and in ourselves. At the same time, it is also psychic, something that psychologists call an association, whether it will be the formation of compounds from all kinds of

actions, impressions or from letters, words and thoughts.
“

The studies of I.P. Pavlov and his students established the basic laws of the formation of this kind of relationship. Thus, the physiological basis of associations has now been studied in sufficient detail.

§ 30. Memorization

Memorization can be unintentional and intentional.

In case of unintentional memorization, we do not set ourselves the special goal of memorizing and do not make any efforts for this. Memorization occurs regardless of our intention, as it were “by itself.” It is mainly remembered that we are keenly interested in or arouse a strong and deep feeling in us. “I will never forget this,” we say about an event that has made an exceptionally great impression on us or is of great importance to us.

A significant part of the vivid life memories that each person has is the result of unintentional memorization. Such memories can be very lasting; some inadvertently imprinted childhood memories persist throughout life.

But no matter how bright and strong such memories are, they still have an episodic and random character. They cannot form systematic knowledge in any field. All activities require that a person remember many such things that are not remembered by themselves. You need deliberate, conscious memorization.

Of great practical importance is the distinction between mechanical and semantic memorization.

Mechanical memorization is mainly based on the consolidation of individual ties, associations.

Meaningful memorization is characterized by the fact that with it the processes of thinking are of primary importance. In order to remember new material, a person must first understand it, comprehend it, that is, find perhaps deeper and more meaningful relationships between this new material and the knowledge already available to a person. The physiological basis of semantic memory is the inclusion of newly formed connections in the system of already existing human connections.

The basic condition for rote memorization is repetition; the main condition for semantic memorization is understanding.

Both mechanical and semantic memorization are of great importance in the mental life of a person. When remembering the proof of a geometric theorem or analysing historical events, semantic memorization comes to the fore. In other cases, for example, when storing a phone number, house, apartment, etc., the main role belongs to mechanical memorization. But in most of those cases when our memory faces responsible and more or less difficult tasks, it should be based on both understanding and repetition. This is especially pronounced in the academic work.

Take memorization of a poem as an example. It is obvious that one cannot do without understanding. Purely

semantic memorization would make it possible to reproduce the content of the poem, its main thoughts and images, but would not provide knowledge by heart. The latter requires strong associations between the words of the poem, requires that each word of the poem immediately evokes the next word in consciousness, and that this happens “by itself”, without any thought, consideration or deliberation.

But, on the other hand, it would be very unreasonable to try to memorize a poem using mechanical memorization alone. Special experiments have shown that a poem is memorized much faster and memorized much stronger than an equally long series of meaningless syllables: if memorizing a poem consisting of 80 words requires 8 repetitions, then memorizing 80 meaningless syllables requires about 80 repetitions, i.e. 10 times more. The reason for this difference is that memorization of meaningless syllables is carried out with the help of mechanical memorization alone, while semantic memorization also plays an important role in memorizing a poem. And the greater the participation of this latter, the easier the poem is learned and the more firmly it is held in memory.

Remembering your own names and all kinds of numerical data is primarily a matter of mechanical memorization. But here one should try whenever possible, to attract semantic memorization to help. Consider from this point of view the memorization of chronological dates. For many, it is associated with great difficulties. This occurs mainly from the inability to use semantic memorization in solving this problem. To make it easier to remember the chronology, you need to

connect separate dates as varied as possible, using as the starting points, or “milestones,” the dates of especially large historical events, as well as “round numbers”: the beginning of the century, the middle of it, etc. P.

Here are a few examples of this kind of linking of historical dates. Pushkin was born in 1799, i.e., a year earlier than the beginning of the century. Therefore, his age is always 1 year more than the last two digits of the corresponding date: during the Patriotic War of 1812 he was 13 years old; He wrote Boris Godunov in 1825, that is, twenty-six years old, and so on. Gogol was 10 years younger than Pushkin, therefore, he was born in 1809. Lermontov was 5 years younger than Gogol, therefore, he was born in 1814. In addition, Gogol was born 3 years before the Patriotic War of 1812, and Lermontov 2 years after it.

Sometimes it's useful to resort to more artificial methods of interpreting numbers that you need to remember: Lermontov was born in 1814 and died in 1841 - the last two numbers are the same on both dates, but the order is reversed; Turgenev was born in 1818 - two times eighteen.

The techniques of the latter type are called mnemonic techniques, i.e., artificial techniques that help memorize.

All that has been said so far shows the difficulty of memorizing on the basis of mechanical memorization alone and the consequent need to resort to the help of semantic memorization as widely as possible.

But the opposite should not be forgotten: for the lasting memorization of any material, semantic memorization alone is not enough. True, in order to remember for a short period any meaningful text, sometimes it is enough to properly understand it. But to make the contents of this text a lasting possession of memory, understanding alone is not enough; repetition is necessary.

If memorization is in the nature of specially organized work associated with the use of certain techniques for the best assimilation of knowledge, it is called memorization.

Now we must get acquainted with the conditions on which the success of memorization depends, with the methods that we use in order to achieve the best possible memorization.

The first condition for the success of memorization is the installation of memorization: we must set ourselves the task of memorizing and subordinating the entire organization of work to this task. It has been proved by various experiments that if a person does not set himself the goal of remembering, he can read a text many times without retaining almost anything in his memory. But as soon as he learns that “you need to remember,” he learns this text more or less quickly.

It is also proved that the strength of memorization depends on whether a person sets himself the task of remembering for a long time or remembering for a short time. In one study, students were asked to memorize two passages of equal difficulty, but they said that the first passage would have to be answered the next day, and the second in a week. In fact, a test of the knowledge of

both passages was performed two weeks later. It turned out that students reproduced the second passage much better; the consciousness that it needs to be remembered for a longer period of time, provided a more durable memorization.

If a person sets himself the goal of remembering something “until tomorrow”, the strength of memorization will be completely different than when he seeks to remember “forever”.

Another important condition for the success of memorization is an active attitude to the process of memorization, which is impossible without intense attention. For remembering, it is more useful to read the text twice with full attention than to read it ten times inattentively. Therefore, attempts to memorize something in a state of severe fatigue, when it is not possible to concentrate properly, are a waste of time.

The worst and most uneconomical way to memorize is to mechanically reread the text that you need to memorize, while waiting for it to be remembered. In contrast, intelligent and economical memorization is active work on the text, which uses a number of techniques leading to better memorization.

The first stage of this work is the study of the text with the aim of understanding it as best as possible and finding as many supports for semantic memory as possible. For this, it is necessary to subject the text to special processing: mentally break it into “semantic pieces” and find “semantic reference points” or “milestones” in each such piece, that is, individual words, sentences, images

that express the “essence” of this pieces are, as it were, its headings. Next, you need to establish connections between these pieces, to understand why they are located in this, and not in any other order. The result of this mental processing of the text can be useful in writing, in the form of a plan or abstract. It is very important that this plan from the outside be as clear as possible, clear and orderly, and even with a cursory glance at it give a clear outline of the content.

The result of such processing of the text should be not only the compilation (mentally or on paper) of its plan, but also the allocation in it of the most essential, that which must be remembered in the first place; the rest should be temporarily relegated to the background and memorized only after the basic semantic framework of the text has been firmly mastered.

Thus, the first stage of memorization is not just reading the text, but special processing of it. This explains that the vast majority of people remember better when they are able to read the text themselves than when they listen to someone else’s reading: when listening it is impossible to produce this processing, and a person is forced to limit himself to passive perception.

When the text has been studied, we must proceed to the second stage, which should consist of attempts to reproduce the text, alternating with repeated readings of this text. Whether we learn a poem by heart, or we are faced with the task of learning some educational material that does not require verbatim memorization (for example, when working on a history textbook, literature), we still need to start trying to reproduce the text as early

as possible. An unproductive way of memorizing is to confine oneself only to reading until there is confidence that the text has been learned.

The advantage of such attempts at reproduction is, firstly, in the fact that they necessarily require internal activity and to a great extent mobilize attention. A simple re-reading of the same text can easily turn into a mechanical action, while it is impossible to mechanically and inattentively reproduce what you still do not quite know.

Secondly, the words of the poem, which I managed to recall with a certain effort, or my own formulations made when trying to reproduce the contents of the text, are remembered much more strongly than what I just read.

After each attempt to reproduce it is necessary to immediately turn to the text and re-read it, establishing what errors were made, what was missed at all, and what could be reproduced correctly. Such re-reading, pursuing the goal of active self-control, is very different from simple re-reading that is not associated with attempted reproduction.

After the material is learned, that is, when it is possible to correctly and fully reproduce it, the third stage begins - consolidation by repetition.

Studies of memory show that memorization is faster and more durable when repetitions do not follow each other directly, but are separated by more or less significant time intervals. In one study, it turned out, for example, that it took 16 repetitions to learn a poem, if all these repetitions followed directly one after the other in one

step, and only 8 repetitions when two repetitions were made per day.

This pattern can be formulated as follows: the distribution of repetitions in time increases the efficiency of memorization.

It follows that from the point of view of the ease and strength of memorization, hasty preparation for exams or learning lessons “last minute” is very unprofitable, since in these cases no distribution of repetitions is possible.

§ 31. The Fight Against Forgetting

Not all of what we once remembered (intentionally or unintentionally) is forever stored in our memory. We forget a lot. Forgetting is a long process that develops gradually. To successfully deal with it, the following main points must be taken into account:

1. The main way to combat forgetting is repetition. Any knowledge not fixed by repetition is gradually forgotten.
2. Forgetting begins shortly after memorization and at first proceeds at a particularly fast pace. If we compare the reproduction of the learned material after 5 and 10 days after memorization, it turns out that forgetting for the first five days is more than additional forgetting for the second five days.
3. Repeat the learned should not be when it is already forgotten, but while forgetting has not yet begun. In the words of the famous Russian teacher and psychologist Ushinsky, it is necessary to “strengthen the building”, and

not “repair the already collapsed”. A quick repetition is enough to prevent forgetting, and a lot of work is needed to restore the forgotten.

Taking into account what was said in the second and third paragraph, we can draw the following conclusion: it is necessary to repeat after a relatively short period of time after memorization, since it is in the first period that forgetting is most rapid.

We said that forgetting begins soon after memorization. This does not mean, however, that it always begins immediately after memorization. Experiments show that often reproduction is most complete not immediately after memorization, but after a day, two or even three days. During this time, the learned material is not only not forgotten, but, on the contrary, is “fixed” in memory. This phenomenon is observed mainly when memorizing vast material.

I.P. Pavlov encountered a similar phenomenon when conducting his experiments. Sometimes in the experiments he conducted, the result achieved was not found directly at the end of the experiment, but later. IP Pavlov explained this phenomenon by the fact that when solving a difficult problem, fatigue of the corresponding cortical cells arises. Only after some time, when fatigue disappears, the nervous system is able to detect the achieved result. It can be assumed that this feature of reproduction is explained by the removal of fatigue that arose in the process of memorization.

One practical conclusion follows from this: one should not think that it is best to answer in an exam or in a lesson

what is learned immediately before the answer, for example, on the same morning; more favourable conditions are created in the case when the learned material is “tracked down” for some time.

The preservation of memorized material in a very strong degree depends on what we do immediately after memorization.

Follow-up can sometimes erase the results of previous learning. If I, having learned a lesson in history, immediately begin to learn a lesson, say, in literature, then this last material can largely erase from the memory already acquired historical material. This negative effect is especially strong when it comes to similar material.

The following practical conclusions follow from here:

1. Moving from memorizing one material to memorizing another, you should always take a short break (5-10 minutes), giving yourself at this time a complete rest from any mental work.
2. You should organize your classes in such a way that in the immediate vicinity you find yourself working on as less similar subjects as possible. If during this evening you need to deal with algebra, history and literature, then from the point of view of the productivity of assimilation, the order is: 1) history, 2) algebra, 3) literature is more profitable than 1) history, 2) literature, 3) algebra.
3. It is useful to renew particularly responsible and difficult material in memory immediately before bedtime,

since a dream provides the most favourable conditions for consolidating the results of memorization.

§ 32. Reproduction

Reproduction, as well as memorization, is unintentional and deliberate.

In case of unintentional reproduction of certain ideas, thoughts, words are remembered by themselves, without any conscious intention on our part.

Associations may be the cause of inadvertent playback. Having met the name of a little-known city in the newspaper, I unexpectedly recall one of my acquaintances. The fact is that this acquaintance lived at one time in this city and the name of the latter was closely associated with the name of this acquaintance for me.

Often the cause of an unintentional memory of an object is its external or internal resemblance to what we currently perceive. In such cases, one speaks of reproducing on the basis of relations of similarity. A chance meeting on the street with a stranger makes me remember an old friend whom I had not recalled for many years; the reason for this is the striking resemblance between this comrade and the person he met.

Reading in the textbook of psychology literary examples illustrating the features of the course of various mental processes, we involuntarily recall similar cases from our own lives.

Associations in the opposite are also possible. For example, a story or movie about hot countries can evoke the memory of a recently read book about the Arctic. At the sight of tractors and combines working on a collective farm field, in our minds the image of a lone plowman following the plow can arise.

Moreover, associations, connecting with one another, form, as it were, long chains, and therefore involuntary memories can lead a person very far from the perception that caused these associations.

Sometimes such reproduction is easy and does not require any effort on our part. Memorizing a well-known poem or story about an incident just observed by us are examples of deliberate reproduction, carried out without any effort. In other cases, reproduction is associated with greater or lesser difficulties. We are not able to immediately name the surname we need, recall the chronological date, or utter a line of the poem that “popped up”. We must remember them.

Recall is called conscious reproduction, associated with overcoming certain difficulties and requiring effort and diligence.

It would be a mistake to think that the difficulty is only memorization, and the remembrance of the once learned is realized by itself. It's not like that at all. Being able to remember is hardly easier for many than being able to remember. And both of these skills are equally important. What benefit will a person derive from a rich supply of knowledge if he does not know how to recall at

the right moment the few of this supply of knowledge that is currently required?

Remembering, we use a variety of tricks. We point out some of them.

Of great benefit in the process of recalling is the intentional use of associations: we reproduce all sorts of circumstances directly related to what needs to be remembered, in the expectation that they will cause the forgotten in consciousness. Remembering where we put the missing key, we try to more clearly imagine where we were and what we were doing at the moment when, according to our assumptions, the last time we held it in our hands. Remembering the name and patronymic of the writer, we try to imagine the cover of the book with his initials, a lesson in the school that spoke about him, etc.

Sometimes recall can be based on recognition. Trying, for example, to recall a forgotten middle name of a person, we quickly pronounce his name in conjunction with various middle names—"Pyotr Aleksandrovich", "Pyotr Alekseevich", "Pyotr Andreevich", "Pyotr Antonovich",—relying on the fact that, by chance correct middle name, we will immediately recognize him, having experienced a "sense of familiarity."

Remembering is a complex and very active process. It requires, on the one hand, perseverance and perseverance, and on the other, resourcefulness, quick wit, and the ability to use a variety of techniques.

§ 33. Representations and Their Characteristics

One of the main manifestations of memory is the reproduction of images. Representations are images of objects or phenomena that we do not currently perceive.

In contrast to the perception caused by the direct action of an object on analysers, representations arise due to the revitalization of previously formed temporal connections; they can be called by association mechanism. For example, with the sounds of a melody, an image (representation) of a person with whom we listened to this melody together may arise in consciousness. Using the signals of the second signalling system (verbal designations, descriptions), we can call up a variety of images. The representations themselves and their primary source—sensations—belong to the first signalling system.

Representations are divided into types corresponding to the types of sensations. Along with visual representations that play a major role in the mental life of most people, there are auditory (try to imagine some familiar motive, the sound of a violin, the voice of a person, a dog barking), olfactory (try to imagine the smell of hay, kerosene, smoke), tactile (imagine a touch of marble, velvet; imagine that you are holding a fluttering bird in your hand), etc.

Representations are characterized primarily by visibility, i.e., by direct resemblance to the corresponding objects. To have a visual representation of an object means internally, or mentally, to “see” it; to have an auditory representation of any sound means to mentally

“hear” it. Not without reason in musical practice the ability to represent the sound of music is called “internal hearing”.

Visibility is different from other forms of knowledge about the subject. I can, for example, know that such a two-story house, stone, is separated from the street by a grill, etc., and yet have no idea of this house, that is, mentally do not “see” its image. I can remember that such and such a person has a low and hoarse voice, and yet not imagine this voice, that is, do not “hear” it internally.

This does not mean, however, that perceptions are no different from perceptions. Psychological analysis shows the following most important differences between perceptions and perceptions:

1. Representations are usually much paler than perceptions.

Try to imagine the face of one of the well-known people, and you will agree that this mental image cannot be compared with the brightness that you have in perception, that is, when you really look at this person.

By the degree of brightness and liveliness of ideas, people are very different from each other. In some, the visual representations are very pale, in others they reach exceptional brightness. There are people who are at a loss even to understand what it means to “internally hear” sounds, that is, to have some sort of vivid auditory performance, while some musicians can accurately reproduce by hearing a very complex piece of music by hearing it once.

That ability, usually called ear for music, is largely reduced to the ability to have vivid and accurate auditory representations of music. But no matter how bright the ideas are in some cases, nevertheless in these cases they only come closer to perceptions, but they can never completely equal them and even more so replace them.

2. Representations never convey with the same brightness all the features and signs of objects.

Usually they reflect only some aspects, some features of the subject. This feature of representations is called their fragmentation (from the word “fragment”—an excerpt). When we try to imagine some well-known face, we clearly and distinctly reproduce only individual features, individual details, acting against the background of a more or less vague and indefinite image.

In the story of Leo Tolstoy’s “Childhood”, the hero of the story describes the image of his mother that he had lost in his childhood as he remembered: “When I try to remember my mother, I only see her brown eyes, which always express the same kindness and love, mole on the neck an embroidered white collar, a gentle, dry hand that caressed me so often and that I kissed so often, but the general expression eludes me.”

In the representations associated with any particular activity, those parties of objects that are essential for this activity are transmitted. Painters, for example, have vivid representations of colours, while architects’ visual representations are often colourless, but they clearly convey the shape of objects. In the auditory representations of the language specialist, the sound

composition of the words clearly appears, in the auditory representations of the actor, the timbre of voice and intonation are highlighted, while in the musician, the auditory representations mainly convey melody and rhythm.

3. Representations are very unstable and unstable.

Try to call up the image of some well-known object and carefully focus on it. You will notice that after a few seconds it will disappear, no matter how you try to hold it, and you will have to make an effort again to cause it. In addition, the views are very fluid and variable: one or the other details come to the fore.

Only people who have highly developed representations of a certain kind, such as musicians, have hearing aids, artists have visual, etc., are they relatively stable and constant.

Representations of one kind or another often arise only if there are currently certain perceptions. For example, many people doubt that they have any kind of lively taste. Indeed, it is rare that anyone succeeds in arbitrarily provoking an idea of the taste of a sour apple. But when you see an immature apple in front of you, or, even better, when you see how another person eats such an apple, a very bright and vivid representation of a sour taste often arises. It is no less difficult to provoke the idea of pain without any external reason, but it can arise with very great vivacity if you see how another person has been burned or pinch his finger. The emergence of ideas is greatly facilitated when it is supported in perceptions. Some chess players say, for example, that

they cannot play a game of chess, not looking at the board at all, but they can play it if they are allowed to look at the empty chessboard; in this case, they imagine the figures in certain places and can monitor their movement. Not everyone who can fantasize well at the piano can compose music without an instrument. This is explained by the fact that musical images more easily arise in the presence of real sound.

Representations, always to a certain degree visual, are inferior, however, to perceptions in this regard. Is it possible on this basis to consider representations only as weakened copies of perceptions? No you can not. Representations contain not only less than perceptions, but they in a certain sense contain more than sensations and perceptions. They always contain a greater element of generalization than perception. Representations are not just visual images of reality; they are always to a certain extent generalized images of reality.

There is a generalization not only in those representations that relate to a whole group of similar objects (the representation of a horse in general, the representation of a table in general), but also in the representations of any individual subject. Each object familiar to us was perceived by us many times, and each of these perceptions was different from the rest. I saw my desktop from different sides, from different distances, with different lighting, etc. And yet, when I imagine it, I have some kind of image, and not many different images that correspond to different perceptions. This generalized image is characterized primarily by the fact that it emphasizes, gives with the greatest brightness the

constant signs of a given object, and, on the other hand, there are no signs or very pale signs characteristic of individual, private perceptions.

Our ideas are always the result of a generalization of individual perceptions. The degree of generalization contained in the presentation may vary. Representations characterized by a large degree of generalization are called general representations. A view that relates to a whole group of similar objects, such as a tree view, will always be a general view.

§ 34. Types of Memory

To characterize the memory of a person, it is not enough to say that it is bad or good. It is known that memory can be good with respect to some objects and bad with respect to others. Some people have a wonderful memory for numbers, but all their life they suffer from poor facial memory. Others, having a good memory on their faces, experience constant difficulties recalling names and surnames. Still others memorize verses with extraordinary ease, but must spend a lot of effort memorizing mathematical formulas. A type of memory is an individual feature of a person's memory. The most significant difference is between the figurative and verbal-logical type of memory.

Some people remember better the visual images of objects and events, while others mostly remember the thoughts expressed in words. Remembering the contents of the read book, people of the figurative type of memory mentally see actors, nature pictures, separate scenes of the story, people of the verbal-logical type of memory

primarily recall the main thoughts of the book, the most interesting verbal formulations.

The most striking representatives of the figurative type of memory can be found among artists: artists, musicians, writers, actors, while verbal-logical memory can often be found among scientists.

Many examples of exceptionally strong figurative memory can be found in the biographies of artists. The famous Russian artist N. N. Ge in his painting "Peter I Interrogates Tsarevich Alexei in Peterhof" (located in Moscow, in the State Tretyakov Gallery) depicted the room of one of the Peterhof palaces. "In my head, in my memory I brought home the whole background of the painting" Peter I and Alexei, "he later wrote," with a fireplace, with eaves, with four paintings of the Dutch school, with chairs, with a floor and with lighting, - I was only once in this room, and was intentionally once, so as not to break the impression I made. "

No less vivid examples of exceptional imaginative memory give biographies of musicians. According to contemporaries, the Russian composer Balakirev was distinguished by his "amazing", "incomprehensible" musical memory. Having heard only once in a concert one of Tchaikovsky's symphonic (orchestral) works, two years later he was able to recall it exactly and play to the author, who by that time had already largely forgotten his work. Equally amazing was the musical memory of Rachmaninov. Once, composer Glazunov came to his teacher, Taneyev, to play his new, just written and still unknown symphony. Loving to play a trick, Taneyev hid Rakhmaninov, then still a student of the conservatory, in

his bedroom before Glazunov arrived. A few times after Glazunov played a symphony, Taneyev led Rachmaninov. A young student sat at the piano and played the Glazunov symphony. The author was completely puzzled how this young student of the conservatory could find out a work whose manuscripts he had not yet shown to anyone.

In the process of schooling, we constantly use both figurative and verbal-logical memory. Imaginative memory is very closely connected with imagination. It can be of significant importance in various fields of human activity.

Verbal-logical memory is expressed in the memorization and reproduction of thoughts. Our thoughts are inextricably linked with speech; therefore, the reproduction of thoughts is always associated with one or another speech expression. We memorize and reproduce thoughts expressed in words. On this basis, this type of memory is called verbal-logical.

Man uses verbal-logical memory constantly. In the academic work, its role is extremely great. Considering in the previous paragraphs the processes of memorization, storage in memory and reproduction, we had in mind mainly verbal-logical memory.

The physiological basis of the difference between the figurative and verbal-logical type of memory are the features of the relationship of two signal systems. If the activity of the first signalling system plays a significant role in memorization, then there is a figurative type of memory. If memorization and reproduction are carried out

mainly in the activity of the second signalling system, then there is a verbal-logical type of memory. The memory of many people belongs to the middle type, which harmoniously combines the action of both signal systems.

Types of memory are caused not only by the interaction of signal systems (figurative and verbal-logical memory), but also by which analyser is the leading one in memorization and reproduction. Depending on the role of the main analysers, the type of memory can be visual, auditory and motor.

Some people, in order to remember, need a visual perception of what is remembered (visual type). Others need auditory perceptions or at least auditory images (auditory type) to remember. Still others, for memorization, need movements and especially speech movements (motor and, in particular, speech-motor type).

Motor memory is the basis for developing motor skills (writing, working on a typewriter, playing musical instruments, controlling an airplane, etc.). Of vital importance is motor memory in physical education and sports (ice skating, cycling, swimming, etc.).

In most people, the visual type of memory is predominant - when memorizing objects, and speech-motor - when memorizing verbal material.

Representatives of pure types are not common. Most people have a mixed type of memory.

Belonging to one type or another largely depends on the practice of memorization, that is, on what exactly a person has to memorize and how he learns to memorize. Therefore, the type of memory can be developed through exercise. This is of great practical importance: one must strive to develop the most versatile type of memory in oneself.

§ 35. Qualities of memory

In the previous paragraph, we talked about the fact that it is impossible to characterize a person's memory simply as bad or good, because it can be different in relation to different objects. Now we must further clarify this issue. Even with certain objects in mind, it's not enough to say about memory that it is good or bad. It can be good in one respect and bad in another. In relation to, for example, historical facts, the memory of a person may be distinguished by great strength of conservation and at the same time be insufficiently accurate.

Characterizing a person's memory, it is necessary to distinguish its individual qualities. The most important of these are:

1. The speed of memorization. To remember one material, one person needs to work long and hard, while another remembers the same material very quickly. This quality of memory is most striking, and therefore many tend to evaluate memory, mainly in terms of speed of memorization. Such an assessment, however, is unfair. The speed of memorization in itself is not critical; it acquires value only in combination with other qualities of memory.

2. Strength retention. Remembering something, some people keep it in their memory for a long time, while others quickly forget it ("short memory"). Differences between people in this regard are no less than in terms of speed of memorization. Various relationships are possible between these two qualities of memory. Experimental studies show that the greater speed of memorization is often associated with strong preservation: whoever remembers soon, he remembers for a long time. However, the opposite cases are observed: some of the fast-remembering people just as quickly forget, while some slowly memorizing for a long time keep in mind what they once learned.

3. The accuracy of the memory. It is characterized by the absence of distortions, omissions of any significant and subjective additions. Accuracy is one of the most important qualities of memory that requires special attention. If you give yourself a clear account of how important the accuracy of reproduction is in many areas of life, it becomes clear how much each person needs to work to improve the accuracy of his memory. The main tool for this is to cultivate a critical attitude towards one's own memories. It is necessary to be able to distinguish what I remember reliably from what I just think, to distinguish the true reproduction of what was seen and heard from subjective additions, conjectures, and interpretations. In the absence of fidelity, all other qualities of memory lose most of their value.

4. Readiness of memory. Under this name, of course, the ability to quickly extract from the memory reserves what is needed at the moment. Some people, with extensive knowledge, cannot, however, quickly find answers to the

requests that life presents. They say about such people: "They have a lot of knowledge, but they do not know how to use it." Without the readiness of memory, that trait of the mind that is usually called "resourcefulness" is impossible. In some professions, resourcefulness, the ability to quickly extract the necessary material from your stock of knowledge, is crucial; this includes the activities of a military leader, attending physician, teacher, etc.

The readiness of memory depends, firstly, on the ability to recall that we spoke about on page 99, and secondly, on the systematization of knowledge. Only if the "memory reserves" are dominated by the complete order and the strictest system, you can quickly find the necessary material in them. It is not for nothing that the major military leaders - people with extremely high readiness for memory - especially emphasized the need for orderly knowledge. "Memory is the pantry of the mind," said Suvorov, "but there are many partitions in this pantry, and therefore it is necessary to put everything where it should be."

§ 36. Education of Memory

Everyone would like to have the best memory possible. This desire is quite natural, but in order to fulfill it, it is necessary to give yourself a clear account of what is meant by good memory.

The presence of an exceptionally strong mechanical storage ability is not in itself a very valuable property. The scientific literature describes many cases proving this point.

One person possessed such a strong mechanical auditory memory that, not understanding a single word in Latin, he could accurately repeat 30 lines of Latin verses, once listening to them. This did not prevent him, however, from displaying an extremely poor memory in life; he constantly forgot half of the instructions given to him, and in the rest he made a number of mistakes. Another person was distinguished by such an exceptional visual memory that he memorized word for word a whole page of newspaper text after he read it only once. But he was heavily weighed by this ability and said that when he needs to remember any one thought or one fact from what he reads, he is forced to mentally run through the entire text from the very beginning.

These cases speak of exceptional mechanical memorization with the underdevelopment of semantic memorization. A good memory is a highly developed semantic memorization, only relying on the help of a mechanical one.

In the biographies of many prominent people, their wonderful memory is noted. Psychological analysis shows that in most of these cases it is not a question of any mechanical memorization abilities, but of the exceptional development of semantic memorization. What determines the development of semantic memorization?

Firstly, by what the mental life of a person is aimed at, what are his interests. Meaningful memorization, as we know, is characterized by the fact that a person memorizes not everything equally, but mainly that which is essential for him is necessary and interesting. It is

understandable, therefore, that the wider, more diverse and substantive the interests of man, the richer and more substantial the “reserves” of his memory. What a person remembers depends to a large extent on what he is interested in.

Everyone who knew Y. M. Sverdlov was amazed at his phenomenal memory in names, on persons, on dates, on everything connected in any way with the personality and activity of party workers. “His head,” recalls Yaroslavsky, “was a kind of accounting and distribution department, she kept in her memory the images of thousands of clandestine workers, and she recorded, cemented the images of thousands of new workers who came to us in the days of the revolution.”

Sverdlov, both in his talent and in the main direction of his work, was a wonderful organizer. “The organizer to the marrow of bones,” wrote JV Stalin about him, “the organizer by nature, by skills, by revolutionary education, by instinct, the organizer of all his ebullient activity, - such is the figure of Y. M. Sverdlov.” It is easy to understand that for Sverdlov, as an organizer, all the data characterizing each individual employee was of primary interest. On this basis, his exceptional memory could develop.

Secondly, the development of semantic memorization is determined by the general mental development of a person. Those who have great and versatile knowledge will easily find many semantic links for the new material that he needs to remember. A person who knows how to think will understand more deeply the material to be memorized, and understanding, as we know, is the main

condition for the development of semantic memorization. People usually think: the better a person's memory, the more knowledge he can have. This, of course, is true. But one should not forget the inverse relationship: the more knowledge a person has, the better his memory becomes in the corresponding areas.

Thirdly, organization in memorization is the most important condition for the development of memory. It is necessary to strive for a system of knowledge, and not for a simple accumulation of facts.

Organization when memorizing involves a habit of semantic grouping of what is memorized. Often, with insufficient sequence and systematicity of the memorized material, with difficulties in understanding, semantic grouping is not achieved immediately and requires considerable effort. But this effort will be fully justified. The order and system during memorization to a large extent contribute to the strength of preservation in memory. In turn, the organization of the material stored in memory contributes to the speed and accuracy of reproduction. Everyone who wants to develop their memory must accustom themselves to systematic and organized organization when memorizing and reproducing.

Finally, the development of memory is achieved by mastering the techniques of memorizing, remembering and the fight against forgetting, which we discussed in detail in paragraphs 30, 31 and 32. In order to develop our memory, we must constantly cultivate the ability to memorize, keep in mind and remember.

Questions to Repeat

1. What is memory?
2. What is called the law of association?
3. What is the physiological basis of the association?
4. What is the basic condition of mechanical and what is semantic memorization?
5. What is the significance of mechanical and semantic memorization in human life?
6. List the conditions for successful memorization.
7. What are the stages of the process of meaningful memorization of the text?
8. List the most important ways to combat forgetting.
9. Indicate the reasons for inadvertent playback.
10. What techniques can be used in the process of recalling?
11. List the most important differences between perceptions and perceptions.
12. List the types of memory.
13. Describe the figurative and verbal-logical memory.
14. List the most important qualities of memory.
15. List the conditions on which the development of memory depends.

CHAPTER VII. IMAGINATION

§ 37. General Concept of Imagination

The images of objects and phenomena that we do not currently perceive are called representations. If a representation is a reproduction of a past perception, it refers to the area of memory. Such, for example, are the representations of each person in his room, the house in which he lives, persons close friends, etc. But we can create ideas for ourselves and such things that we have never perceived before. A man who has never travelled outside the middle zone of the USSR still imagines the ice of the Arctic, and the tundra, and tropical forests, and sand deserts. Such representations will be imagination.

How can such representations be created? Where does the material come from for them?

All representations of the imagination are built from material obtained in past perceptions and stored in memory. The activity of the imagination is always a processing of the data that is delivered by sensations and perceptions. "Out of nothing" imagination cannot create. A person who is deaf from birth will never be able to imagine sound, just as a blindborn will never create a colour image in his imagination.

A person who has not been to the Far North can imagine the tundra only because he saw images of it in paintings and photographs, he saw and in reality individual elements included in the landscape of the tundra - he saw a snow-covered plain, a small shrub, he saw deer in

the zoo. The processing of such material obtained in past perceptions makes it possible to create a representation of the tundra, and the richer this material, the brighter and fuller the imagination can be. There are times when elementary school students, starting to study the history of the USSR, imagine the Russian boyar in the form of a modern man in a coat and cap. This happens because they do not have material from which to build a faithful image of the Russian boyar, the material that is usually given by examining paintings and illustrations, visiting museums,

Now we can define imagination. Imagination is the creation of new images based on material from past perceptions.

The most bizarre and fantastic products of the imagination are always built from the elements of reality. These are all the fantastic creations of the popular imagination: the mermaid (a woman with a fish tail), the ancient Greek sphinx (the body of a lion, the head and chest of a woman, the wings of a bird), the hut on chicken legs, etc.

Read such a typical example of fairy-tale poetry as the beginning of “Ruslan and Lyudmila” by Pushkin:

At the seashore, the oak is green;
The golden chain on the oak is that:
Day and night, the scientist cat.
Everything walks around the chain;
It goes to the right—the song starts, to the
Left—the fairy tale says

There are miracles: the goblin wanders there ... and so on.

Only the combination of elements is fantastic here, the extraordinary meaning and meaning that they receive, the elements themselves are taken from reality. Oak, golden chain, cat, songs - all this exists in reality and is familiar to everyone. But the image of a learned cat walking around an oak tree on a golden chain and singing a song is a product of the poet's creative imagination.

The imagination of man was born and developed in the process of labour.

By working, a person changes, transforms reality, creates new things necessary to satisfy his needs. A prerequisite is the presence of a conscious goal: a person imagines in advance the result of his labour, those things and the changes in them that he wants to receive. This is a significant difference between humans and animals.

"A spider performs operations," writes Marx, "resembling the operations of a weaver, and the bee by construction of its wax cells shame some architects. But even the worst architect from the best bee from the very beginning differs in that before building the wax cell, he already built it in his head. At the end of the labour process, we get the result that already at the beginning of this process was in the mind of the employee ... "

The transformation of reality "in perception", the construction "in the head" of new things is carried out by the imagination.

§ 38. Passive and Active Imagination

In the processes of imagination, we can distinguish between different degrees of activity.

An extreme case of a completely passive imagination is dreams in which images are born unintentionally, change themselves and come into unexpected, bizarre, sometimes completely meaningless combinations. At its core, involuntary is also the activity of the imagination, which unfolds in a drowsy, drowsy state, for example, before falling asleep.

A very accurate and detailed description of such a work of imagination is given by L. N. Tolstoy in *War and Peace*. Fifteen-year-old Petya Rostov is in the partisan detachment of Denisov; night; in the morning a detachment attack is planned on the French column; Petya has just returned from intelligence and is napping, sitting on a wagon.

“Petya should have known that he was in the woods, in the party of Denisov ... that he was sitting on a truck, recaptured from the French ... that there was a Cossack Likhachev sitting under him and sharpening his saber, that a large, black spot to the right was a guard, and red, bright the spot below to the left is a burning fire ... but he did not know anything and did not want to know this. He was in a magical kingdom in which nothing resembled reality. The big black spot might be a guardhouse, or maybe there was a cave that led into the very depths of the earth. The red spot could be fire, or maybe the eye of a huge monster “...” Burn, burn, burn, burn ...—the sharpened saber whistled. And suddenly Petya heard a

harmonious choir of music playing some unknown, solemnly sweet anthem ... Music played more audibly and audibly. The chorus was growing, moving from one instrument to another ... Each instrument,

These musical images arise and develop by themselves. In this sense, they are like a dream. But Petya does not sleep; he only sleeps, and therefore he can still influence the course of his images.

“He tried to lead this huge chorus of instruments. ”Well, hush, hush, stop now.” And the sounds obeyed him. ”Well, now fuller, more fun. Still, more joyful. “ And from an unknown depth, amplifying, solemn sounds rose. “

The phenomena of sleep and dreams, surrounded by mystery for many centuries, received a scientific explanation in the works of I.P. Pavlov. IP Pavlov found that sleep is a diffuse inhibition of the cerebral hemispheres. Complete and deep inhibition of the cortex is a dream without dreams; dreams are caused by the work of groups of cells that remain uninhibited. The fact is that inhibition encompasses cells of the cortex gradually and unequally deeply; the uneven distribution of inhibition noticeably appears in the initial stage of sleep and in its last stage before awakening. In nerve cells that perform higher mental functions associated with the activity of the second signalling system, inhibition occurs earlier and deeper, and these cells disinhibition later than cells that perform the functions of the first signalling system. Therefore dreams

Dreams are characterized by an unnatural course of events, the appearance of strange images, which are like a fantastic combination of real images and objects. This is the result of an unusual combination of functioning cells due to the uneven inhibition of individual sections of the cortex. In dreams, there is no intentionality and conscious control over the flow of ideas, so dreams are considered as an extreme degree of passivity of the imagination.

In the waking state, the activity of the imagination can have the most varied degrees of intentionality and activity. At the high stages of its development, in the creative work of a writer, artist, scientist, imagination becomes a process of conscious and active creation of images that meet a strictly defined plan and satisfy equally stringent requirements. The ability to deliberately evoke sufficiently vivid images is a prerequisite for the development of imagination.

§ 39. Recreating Imagination

Reconstructing imagination is the construction of an image of an object in accordance with the description (or drawing, diagram, etc.) of this object. Reading the description of an experiment in the textbook of physics or chemistry, the student should as clearly as possible imagine the arrangement of objects and devices, the actions that need to be performed, the result of these actions, etc. This is the activity of the recreating imagination.

When considering a plane drawing of a machine, one must be able to clearly visualize the arrangement of the

individual parts of this machine in space and their interaction. It is also the work of a recreating imagination, namely that kind of it called “technical imagination”. The technical imagination necessary in the activities of an engineer, technician, skilled worker, involves the ability, looking at the drawing, mentally “see” the machine, apparatus, part, shown in this drawing.

A particularly important role is played by the recreational imagination in the study of such sciences, the objects of which cannot be familiar from personal experience. This applies to botany, zoology, geography, especially to history; events of the distant past, people of those times, the environment in which they acted, can be imagined only with the help of imagination. The study of history, which does not rely on the work of recreating imagination, remains at the level of mechanical memorization of words.

However, it is not enough—no matter what science is being discussed—to imagine anything. The task is not just to provoke some representation of the subject being studied, but to create the correct representation. Recreating imagination should not only be vibrant, rich and flexible, it should also be true, accurate, give images that correspond to reality.

Ego is possible under two conditions:

1. You need to be able to correctly understand those descriptions of the scheme, drawings, from which the work of imagination is sent.

To imagine a car from a drawing, one must be able to “read the drawing”, understand the image methods used in it, and know the legend. To create a true picture of the events of the past, one must first of all correctly understand the text of the historical description and story.

2. You need to have a sufficient supply of visual images from the corresponding field of reality.

In the first paragraph of this chapter, we have already said that without sufficient material obtained in perception, the productive work of the imagination is impossible, and we gave an example of incorrect historical representations arising from the lack of such material.

Recreating imagination is crucial in the mental development of a person. Giving the opportunity to imagine something from someone else’s story and description that you yourself have not seen and cannot see, it takes a person beyond the narrow framework of his personal experience and makes his knowledge concrete and alive.

The activity of recreating imagination when reading fiction is most clearly developed. The heroes of the works of Pushkin, Gogol, L. N. Tolstoy, Gorky and other major writers come to life in the imagination of the reader themselves, and the picture of the events depicted by the author unfolds by itself. Everyone knows that it is much easier to get vivid and vivid images of the past by reading a historical novel or story than by studying a history textbook or a scientific historical essay. Recall from this point of view such works as “The Captain’s Daughter” by

Pushkin, “Taras Bulba” by Gogol, “Peter I” A. H. Tolstoy. Reading fiction is the best school of imagination, the most powerful means of educating it.

But not every reading of fiction is such a school. A cursory scan of the work, pursuing one goal—to find out “what is being said here” and “what will happen next”—not only does not develop imagination, but, on the contrary, accustoms it to inaction. The ability to read fiction requires the active work of the imagination, requires the reader to mentally “see and hear” all that is being discussed. People who do not have this adolescent tend to skip descriptions when reading a work of art. This is quite natural: for a person with a “lazy imagination”, an artistic description should seem boring and unnecessary.

To understand the artistic description, it is not enough to understand the meaning of the words and figure out what subjects we are talking about; it is necessary to fully visualize the picture that the author deploys. Little of. In order for this picture to come to life, in many cases it is necessary to supplement the visual image with a whole series of other representations: auditory, olfactory, etc. Only then can you really be carried by imagination into the environment in which the writer wants to transfer you, to “relive” it.

Read the following lines from Turgenev’s description of the July morning:

“Who, besides the hunter, has experienced how gratifying it is to wander through the bushes at dawn?” A green line is the trace of your feet along the dewy, whitened grass. You will spread the wet bush - you will be enriched

with the accumulated warm smell of night; the air is full of fresh bitterness of wormwood, honey of buckwheat and “porridge”; in the distance, an oak forest stands against a wall and shines and grows red in the sun; still fresh, but the proximity of heat is already felt. My head languidly dizzy with an excess of fragrances ... Here the cart creaked ... The sonorous clang of a braid is heard behind you. “

To really understand these lines, one must mentally “see” the wall of the oak forest, shining and fading in the sun, and a green footprint on the white grass, one must mentally “hear” the creaking of the cart and the clang of the braid. Moreover, one must imagine the bitter smell of wormwood and the honey smell of buckwheat and “porridge”, imagine the freshness of the morning and the proximity of heat beginning to be felt, and imagine the feeling of “languid” dizziness. Then you can really experience what you would have experienced by “wandering through the bushes at dawn,” that is, you will really be transported to the depicted situation.

The art of reading fiction must be studied, and mastering this art, at the same time you develop and improve your imagination.

§ 40. Creative Imagination

Creative imagination refers to the independent creation of new images, included in the process of creative activity, that is, an activity that results in original and valuable products. Such is the imagination of a writer, artist, composer, scientist, inventor, etc.

Creative imagination is a much more complex and difficult process than recreating imagination. Creating images of Onegin, Pechorin or Plyushkin is incomparably more difficult than imagining them and understanding them by reading an already written work. Creating a new model of the machine is incomparably more difficult than imagining it according to the finished drawing.

There is no such area of creativity where the imagination does not play a significant role.

All labour, which is creative labour, includes the activity of creative imagination. A Stakhanovite worker, breaking old standards and achieving a huge increase in labour productivity, must imagine, “create in his imagination,” a new, most rational arrangement of tools, new ways of doing things, a new arrangement of labour.

It is easy to understand how important creative imagination is for an inventor who is looking not for an abstract idea, but for a specific thing—a machine, apparatus, device, etc.; Before realizing his invention in the form of a model, he must build it “in his head”, he must imagine it. The imagination of the inventor is a technical imagination, but not a recreational technical imagination, which we spoke about in the previous paragraph, but creative.

No less important is imagination for the scientist. Conscious of the experiment, the scientist must create in his imagination such a combination of conditions that would make it possible to verify the hypothesis he is planning or the law established by him.

Creating new hypotheses and establishing new laws, the scientist must also “give full play to his imagination”. Without the ingenious power of imagination, Newton would not have thought to deduce the movement of the planets from the movement of an abandoned stone or shell and explain with one reason the fall of bodies on Earth and the movement of planets around the Sun. There is no science that does not require imagination. Lenin emphasized the need for imagination even in mathematics, the most abstract science, pointing out that without mathematics major mathematical discoveries would have been impossible.

Nowhere, however, does imagination have such exceptional significance as in art, in the process of artistic creation. In science, the images of imagination are only material used by the creative thought of a scientist. In art, creating images is the goal of creativity; the artist - writer, painter, composer, actor embodies his ideological concept in images. Therefore, the work of the imagination is central to the process of artistic creation. Take the writer's work of imagination as an example.

First of all, it is necessary to note the extreme brightness and liveliness of the imagery of the great artists of the word. In most cases, these images are created even before the writing process begins. The author mentally “sees” his characters and their actions, “hears” their conversations, and he can only ponder over the meaning of events unfolding in front of his inner gaze, select what should be included in the work, and possibly describe the selected more accurately.

"I do not compose the contents of the book," Dickens said, "but I see it and write it down." Goncharov also characterized the process of writing the novel: "Persons haunt me, pester, pose in scenes; I hear excerpts from their conversations—and it often seemed to me that I wasn't making it up, but that it was all in the air around me, and I just had to look and think."

Of course, the writer only thinks that he does not "compose", does not "invent" his work. It seems, firstly, because the images are usually created even before the writing process, and secondly, because these images come closer to the images of perception in brightness and liveliness. Alexei Nikolayevich Tolstoy, noting this last line, says about himself that he often, recalling, "confused the former and the imaginary."

Another important feature of the writer's imagination is that he not only "sees" and "hears" his heroes, but, in the words of A. N. Tolstoy, "lives with them." The writer must be able to imagine himself as his own hero, put himself in his place, and experience in the imagination of his feelings.

Gorky saw in this the most important difference between the imagination of a writer and the imagination of a scientist. "A science worker," he wrote, "while studying a ram, there is no need to imagine himself as a ram, but a writer, being generous, is obliged to imagine himself avaricious, being unselfish—to feel like a greedy money-grubber, being weak-willed—to convincingly portray a person of strong will."

We can say that the writer, along with the visual and auditory imagination, must also have an emotional imagination, that is, the ability to experience other people's feelings in the imagination. Such a powerful and rich work of the imagination is possible only with sufficient material. The accumulation of this material assumes the following conditions:

1. The high development of observation, which we have already discussed in the chapter on perception (p. 67).
2. A thorough and in-depth study of the area of reality that the writer depicts in his work.

The work of A. Fadeev on the novel "The Young Guard" is indicative in this respect. Regarding the new, supplemented and revised edition of this novel, the Pravda newspaper noted that the writer "first of all turned to an in-depth study of life and enriched his work with materials of reality itself. The author of the novel re-examined the work of the Bolshevik underground that actually existed in Krasnodon, which led the Young Guard, and brought in new life material. "As a result, the writer was able to give a truthful and artistic generalization of the typical phenomena of our life.

3. The richness of one's own emotional life and, in particular, the high development of emotional memory, that is, memory of feelings, providing material for the emotional imagination.

The most important, decisive condition determining the activity of creative imagination is the ideological orientation of man. Imagination only deserves the name

of the creative, when it serves the realization of the idea, when the ideological plan of the creative worker is embodied in the created images.

The ideological orientation, determined by the worldview of a person, is the main engine of creative imagination.

§ 41. Dream

A special form of imagination is a dream. Like creative imagination, a dream is the independent creation of new images. But it differs from the creative imagination in two essential ways:

1. The dream is the creation of the desired images, while the images of the creative imagination do not always embody the desires of the author. One cannot call the negative images of Chichikov, Plyushkin, Nozdrev "Gogol's dream." Dreams find their figurative expression of a person's desire, that which attracts him to himself, to which he aspires.

2. A dream is a process of imagination that is not included in creative activity, that is, that does not immediately and directly give an objective product in the form of an artwork, scientific discovery, technical invention, etc.

This does not mean, however, that the dream has nothing to do with activity. The dream is aimed not at the present, but at the future activity, and therefore it often forms the first, preparatory stage of creative imagination. By the power of creative imagination, the inventor creates the design of the apparatus on which he

is currently working, and in dreams he draws the outlines of his future works, the embodiment of those creative ideas that attract him to himself.

A dream is a process of imagination aimed at the future and, moreover, a desired future.

It is wrong to understand a dream as the result of a passive, involuntary game of imagination. Of course, there are such dreams (they are often called “dreams”), but they form only the lower stage of this form of imagination. At higher levels, the dream becomes an active, voluntary, conscious process.

The value of a dream is determined mainly by how it relates to human activities.

Lenin in one of his works cites the following words of the well-known critic and publicist of the 60s Pisarev, emphasizing the correctness of their idea of “a useful dream as an impetus to work”:

“My dream can overtake the natural course of events, or it can grab completely to the side, where no natural course of events can ever come. In the first case, a dream does no harm; it can even support and enhance the energy of a working person ... If a person were completely deprived of the ability to dream in this way, if he could not occasionally run ahead and contemplate with his imagination in a complete and complete picture the very creation that was just beginning to take shape under his hands “- then I definitely can’t imagine what motivating reason would compel a person to undertake

and complete the extensive and tedious work in the field of art, science and practical life ...”

Characterizing in the person of Oleg Koshevoy the best representatives of the “new, youngest generation” of Soviet people, Fadeev emphasizes in them such “seemingly unconnected features” as “dreaminess and effectiveness, flight of imagination and practicality”. “Unconnected” these features can only seem at first, superficial glance.

Dream and imagination are a powerful impetus to activity. While dreaming, a person looks forward to the future, and in his dreams sees a program of future activities, its prospects. His desires and aspirations, embodied in the images of dreams, become more powerful and effective. This is especially vividly shown in The Young Guard in the images of Sergei Tyulenin and Lyuba Shevtsova: a passionate dream of a feat played an exceptional role in their spiritual growth.

A dream has a completely different character when it appears to a person as a replacement for activity, when a person dreams, instead of acting when he leaves the dream in life. Such people, dreaming, do not look forward, but to the side. In dreams they find an imaginary fulfillment of their desires, and this saves them from having to fight for the actual fulfillment of these desires. Such people are called “empty dreamers.”

§ 42. Imagination and Feeling

The activity of the imagination is closely connected with the emotional life of a person. This communication is two-way. On the one hand, feelings evoke the activity of the imagination: under the influence of fear, the imagination draws perspectives of innumerable dangers, and for a person inspired by the joy of success, it unfolds vivid pictures of future successes and achievements. On the other hand, images of imagination give rise to feelings or strengthen existing ones: many people, when they are about to pull out a tooth, so vividly imagine the suffering that awaits them, that they experience a feeling of fear much stronger than the short-term nuisance that they really have to face in the doctor's office.

The connection of imagination and feeling in art is especially vivid. The process of creativity never unfolds in full measure until the artist is indifferent to his plan, until the intended plot does not excite, does not ignite it. Significant creations of creative imagination are always born with the participation of great feeling.

Regarding his opera Eugene Onegin, Tchaikovsky wrote: "If music was ever written with sincere enthusiasm, with love for the plot and for the characters, then this is music for Onegin." I melted and trembled with inexpressible pleasure when I wrote it. "In the further process of creativity, imagination created under the influence of feelings themselves become a source of feelings: they can excite the artist who created them no less than the events of real life.

Glinka recalls that Susanin's position in the scene with the Poles in the forest worried him so much that he "had his hair standing on end and the frost was rubbing on his skin." Tchaikovsky, on the day that the last picture of The Queen of Spades was completed, wrote in his diary: "I cried terribly when Herman lost his spirit."

Such is the connection of imagination and feeling in the process of perception of a work of art. The more the work excites us, the more intense the activity of the recreating imagination becomes, and as we more clearly imagine the heroes of the work and the environment in which they operate, we experience their feelings deeper and stronger.

Art is not only a school of imagination, but also a school of feeling. By enabling a person to experience a world of deep and significant feelings, the accumulator of which are great works of literature, music, and painting, it pushes the boundaries of a person's emotional experience and thereby enriches the content of his spiritual life.

A rich and diverse emotional life is impossible without imagination. A man deprived of imagination is inevitably closed in a close circle of narrowly personal feelings. In order to have fun with another's fun and sympathize with another's grief, you need to be able to use your imagination to transfer to the position of another person, mentally to take its place. A truly responsive and responsive attitude towards people involves a lively imagination.

§ 43. Transformation of Representations in the Imagination

The activity of the imagination, as already indicated, is always the processing, transformation of the data that is delivered by the perception. Let us now get acquainted with how this transformation is carried out. We will take examples from the field of creative imagination of the writer, since here the characteristic features of the imagination are very bright and convex.

Talking about how the image of the heroine of War and Peace by Natasha Rostova was created, L. N. Tolstoy once said: "I took Sonya, dragged her with Tanya, Natasha came out." Sonia is the wife of Lev Nikolaevich Sofya Tolstaya, Tanya is her sister Tatyana Andreevna. So, the image of Natasha Rostova was created by merging the images of two very familiar women to Tolstoy².

How is such a merger possible? After all, it is quite obvious that one cannot simply connect together the integral images of two people. It is necessary to decompose the images into separate traits or signs and then combine some of the traits taken from two different images into a new image.

² In fact, the origin of the image of Natasha Rostova is more complicated. In the words quoted, Tolstoy indicated only his main sources.

In this process, therefore, two sides are distinguished: 1) analysis, i.e., the isolation of individual traits or signs from the integral image, and 2) synthesis, i.e., the combination of individual traits or signs into a new integral image. Both of these points—analysis and synthesis—constitute the necessary parts of the process of creative imagination. Imagination separates individual traits from those images of reality that perception gives, and from these traits it again creates single and integral images.

When the “Hero of Our Time” was published, some critics suggested that the image of Pechorin was not just a portrait of the author. Responding to these critics, Lermontov in the preface to the second edition of the novel indicated that Pechorin is “for sure, a portrait, but not of one person; this is a portrait made up of the vices of our entire generation, in their full development. “Consequently, the image of Pechorin, according to the testimony of Lermontov himself, is built from the features distinguished by the author from the many people he has observed: “composed of the vices of our entire generation” (of course, not “the entire generation” in the literal sense, but of a certain class group of this generation).

Gorky also describes the process of creating an artistic image. “The character of the hero,” he says, “is made of many separate features taken from various people of his social group ... It is necessary to look very closely at a hundred or two priests, shopkeepers, workers, in order to write the portrait of one worker, priest, shopkeeper approximately correctly “. In this way all those artistic images that can be called typical are built. An image becomes a type when the features characteristic of a

whole group of people are gathered in it, when it is, in Gorky's words, "an extract from a series of homogeneous facts". The process of creating such an image is a process of generalization, i.e., the extraction of features common to a number of objects, and the expression of these signs in a single image.

The originality of the image created by the creative imagination of the writer lies in the fact that, as a result of generalization, he still remains the image of an individual person, conveying all the individual characteristics of this person. Pechorin is not just a collection of vices of a generation. This is a living person with many features inherent to him personally, and not to all representatives of his generation, and possessing not only vices, but also a number of positive qualities.

But the synthetic work of the imagination is not something like a mechanical folding and fitting to each other the features highlighted by the previous analysis. In this way, you can get a dead scheme, and not an image of a living person. The creative work of the imagination comes from those bright and vivid images that crowd in front of the writer's inner gaze. An artist works on these images, gradually changing them in accordance with his creative plan.

In this case, one feature of our ideas, which we spoke about above, is of paramount importance (p. 101). Representations never convey with equal brightness all the features and characteristics of an object; always some features, for some reason the most important or interesting for us, come forward against the background of a more or less vague image. The creation

of typical images is carried out primarily by such a highlighting, emphasizing, highlighting typical, common features in the image of a living, concrete person. Recall that the image of Pechorin is made up not just of the vices of the whole generation, but of these vices “in their full development.” Highlighting a certain trait often manifests itself precisely in the fact that it appears “in full development,” that is, it is expressed to the greatest extent possible.

In this regard, the role that hyperbole can play in the creative imagination, that is, the exaggeration of individual features and attributes of an object, becomes clear. It increases the brightness and expressiveness of the image, greatly promoting the highlighting of certain features of it.

Questions to Repeat

1. What is called imagination?
2. What is the relation of imagination to perception?
3. What is the meaning of the imagination in work?
4. What is called a recreational imagination?
5. What conditions must the recreational imagination satisfy?
6. What is called creative imagination?
7. Describe the work of creative imagination.
8. What is a dream?
9. What is the value of a dream?
10. What is the role of analysis and synthesis in creating imagery?
11. Describe the process of building a typical image.

CHAPTER VIII. THINKING AND SPEECH

§ 44. A General Concept of Thinking

Waking up in the morning, a man comes to the window and sees that the roofs of houses are wet. "So it was raining at night," he thinks.

This case gives us a typical example of the thought process. The man did not directly perceive the rain. He learned about it indirectly through other facts, i.e. indirectly. In solving any difficult problem, we receive an answer through a number of considerations. The first sign of thinking is that it is a process of indirect cognition of things and phenomena of reality.

Any science gives us countless examples of indirect cognition. For example, a doctor on the basis of an examination of the patient can judge the condition of internal organs, inaccessible to direct observation.

The structure of the atom cannot be observed directly, but it has been studied in detail and accurately. It is impossible to directly observe the physiological processes occurring in the cerebral cortex, but I.P. Pavlov established the basic laws of higher nervous activity.

What is the basis for the possibility of such indirect cognition? First of all, on the awareness of the connections and relationships between things and phenomena. Even the simplest conclusion that it was raining at night, a person could make only because he knows the causal connection between rain and humidity of roofs.

The second equally important sign of thinking is that it is a generalized cognition of reality.

Our cognition begins with sensations and perceptions. But we always perceive isolated facts. How could we know how quickly this piece of sugar would dissolve in hot tea, if we haven't tried to dissolve this piece yet, and what happened when we dipped other pieces of sugar into tea, we didn't generalize? By dipping sugar into tea, we know what will come out of it, just because we have summarized the results of our past observations and know some of the common properties of sugar, we know the connection between the rate of dissolution of sugar and the temperature of the liquid.

It is not enough to notice that once rain caused humidity of roofs. No conclusion can be drawn from this yet. It is necessary to come to a common position: after any rain enough strength of the roof are wet. In other words, it is necessary for a person to summarize the results of his observations. It is not enough to notice the connection between the two facts; you need to realize that this connection is general, that it is determined by the common properties of things. In our example, the causal relationship between rain and the humidity of roofs is determined not by the private features of any one rain, but by properties common to any rain of sufficient force.

In any process of thinking, we are dealing with the reflection of the common properties of things, i.e. properties belonging to a whole group of similar objects or phenomena. The basis of thinking is the formation of temporary connections, reflecting the objective connections of objects of real reality. I.P. Pavlov's teaching on two signalling systems points to the physiological mechanism of

thinking: it is the formation of temporary connections in the second signal system, based on communications in the first signal system.

Thinking gives us the opportunity to know what we haven't directly observed. Moreover, it gives us the opportunity to anticipate the course of events and the results of our own actions.

It is known, for example, with what great accuracy astronomy predicts the eclipse of the Sun and the position of the planets at a certain point in time. It is well known that mastering the laws of Marxist-Leninist science about society makes it possible to foresee the course of social events.

So we can say that thinking is a process of reflecting the common properties of things and finding natural connections and relationships between things. In other words, this definition can be expressed as: thinking is a process of generalized and indirect cognition of reality.

§ 45. Speech and her attitude to thinking

Our thinking is inextricably linked to speech. First, people use speech to communicate their thoughts to each other. Speech is a means of communication between people.

Secondly, people think through speech. Speech is thus a tool of thinking. If you ask a person, "What language do you think?" he will not be surprised at all, but at once he will answer: "to Russian," "in Ukrainian," "in Uzbek" etc. We think in words.

"Language is a tool, a tool by which people communicate with each other, exchange thoughts and seek mutual

understanding. Being directly connected with thinking, language registers and enshrines in words and in the combination of words in sentences the results of the work of thinking, the successes of human cognitive work and, thus, makes it possible to exchange thoughts in human society" (Stalin).

To serve as a means of communication, speech must have or other external expressions accessible to the hearing or vision of others. Unlike such external speech, this inner silent speech process, through which we think, is called inner speech.

Human thinking is impossible without the participation of a second signalling system. Unlike animals in humans, I. Pavlov wrote, "the signals of the second degree appeared, developed and extremely improved... words spoken, audible and visible. These new signals, in the end, began to denote everything that people directly perceived both from the outside and from their inner world, and were used not only by mutual communication, but also alone with themselves."

Speech (second signal system) introduced a "new principle of neural activity" that led to boundless orientation in the world around and created "the highest adaptation of man - science." Through the second signal system, said I.P. Pavlov, man "becomes the master of reality."

But speech (second signal system) cannot by itself provide cognition of reality. I.P. Pavlov drew attention to the futility of thinking of those people ,who, using only words, would like, without carrying out with reality, to withdraw from them and all cognition." "Words were and remain only the second signals of reality" (Pavlov). This means that a word that has

lost its connection with the real objects and phenomena it denotes, which ceases to be a signal of reality, loses its cognitive meaning. This means that purely verbal knowledge, memorizing verbal language without a clear understanding of which sides of reality are reflected in them, is purely formal and useless knowledge.

On the physiological side, this means that normal thinking is possible only with the inseparable participation of both the first and second signalling systems. Speech is a necessary tool of thinking. But it does not follow that the process of thinking comes down to speech, that to think is to speak out loud or to yourself. The difference between the thought itself and its verbal expression can be seen from the fact that the same thought can be expressed in different languages. The thought remains unchanged, although all words change. The same thought may have a different speech form, but without any speech form it does not exist in humans.

“Whatever thoughts arise in a person’s head and whenever they arise, they can arise and exist only on the basis of language material, on the basis of language terms and phrases. There are no fire-free thoughts free of language material, free from the language “natural matter” (Stalin).

How in this case can explain the state familiar to each person, when you feel that you understand a thought, but can not express it in words? “I know what’s going on here,” the man says, “but I can’t put it into words.” It may be assumed that such cases are an exception to the general rule, that there is a “thought without words” for which no speech expression can be found.

Such an assumption would, however, be wrong. It is not that it is not possible to find any speech expression for a

thought that exists without words, but that it is not possible to move from the expression of thought in the inner speech to the expression of it in the external speech. If a person really understands the idea, then this understanding is expressed in some words. But one thing is an expression of my thoughts, which is clear only to me, and another thing is an expression that is understandable to another person. When someone finds it difficult to express their thought in words, it means that it is difficult to express it in a way that other people understand, to express it in the forms of external speech.

Moreover, for the most part it is difficult for us to “express in words” such a thought, which for ourselves is vague, not completely clear. The best way to fully understand your thoughts is to try to pass it on to someone else. If this fails, then there are some gaps, ambiguities, uncertainties in the thought itself. The thought receives complete clarity and completeness only when it finds a clear and complete word language. If a person speaks and writes nothing but vaguely and confusingly, then his way of thinking cannot have complete clarity and clarity.

Finding an expression in the external speech, our thought is improved, develops, clarifies.

Speech is a means of communication between people and a tool of their thinking. Both of these functions of speech are closely related to each other. Developing and improving as a means of communication, speech becomes thus a more subtle and perfect tool of thought.

§ 46. Concept and Word

In the process of thinking, we always operate in concepts. The concept is a form of thinking, which reflects the general and yet significant properties of objects and phenomena.

For example, the geometric concept of “triangle” reflects properties common to all triangles and significant from a geometric point of view. Signs such as the color of the paper on which the triangle is depicted, or the thickness of the lines that make it, are inconsequentially geometric and therefore not included in the content of the concept.

Our knowledge of objects and phenomena of reality crystallizes in concepts.

The concept differs from the presentation of its more generalized and distracted, non-visual character. Representation is the image of an object, the concept is the thought of an object.

Not everything we think about can be presented in the form of visual images. Lenin gives a vivid illustration of this position: it is impossible to imagine movements at a speed of 300,000 kilometres per second (the speed of light), and it is possible to think of such a movement.

Try to imagine a thousand-cornered. You’re not going to make it. At best, you will have the image of a polygon with an unspecified number of sides, an image that is equally suitable for the thousand-corner, and for the pentagon, and for the centagon. However, we have a very clear and definite concept of a thousand-corner, which is not mixed with the concepts of a pentagon, a snug or even a polygon, which has 999 sides. Using this concept, we can give a

perfectly accurate solution to problems, for example, calculate the amount of internal angles of such a polygon.

Thinking about something and imagining something is not the same thing.

The concept is inextricably linked to the word and speaks in our thinking in the form of the meaning of the word.

The word is that real irritant, without which human thinking is impossible. The word can act in three forms: as an auditory irritant when understanding a speech spoken out loud, as a visual irritant (word written or printed) and, finally, as a kinaesthesia irritant when uttering a word. I.P. Pavlov attached particular importance to kinaesthetic irritations (coming into the bark from speech organs), calling them the basis, or “base”, speech.

The second signal system allows you to generalize the world around you. In order to fully understand this very important point, we must realize that the words of our speech, although they may refer to single subjects, always have some general meaning. Every word generalizes.

The words “table,” “animal,” “steam locomotive” do not refer to any one object, but to a whole group of similar objects. The word “solid” refers to a property common to many objects. The word “writing” refers to an action committed by many people in different circumstances.

A friend who met me in the street, when asked where he was, replies: “In the reading room.” It is quite possible that I have never been to the very reading room from which he returns, that I do not know this reader, and yet I fully understand the meaning of his answer, because I know

what it means to read in general, I understand the general meaning of the word “reading”, I have the concept of a reader.

If perception and representation reflect in a whole way of communication the properties of an object or phenomenon, then the concept is a system of connections reflecting the ratio of objects to each other. Even the concept of a single object implies an awareness of the difference between the subject and others, i.e. its attitude to other subjects.

If I understand the meaning of a word, I have an appropriate concept in my mind- sometimes clearly, sometimes vaguely. Very often there is also a representation in the mind, but in most cases it plays the role of only illustration to the relevant concept.

In one experiment, the subjects had to tell them what ideas they had when they heard certain words. With the word “animal” one person has an image of a cat belonging to his neighbours, another—the image of a donkey horse, the third —the image of the word “animal” written in large letters on a light background. The word “infinity” caused one image of the steppe, endlessly spread in all directions, the other—the image of a straight line, the third imagined a mathematical sign.

It is obvious that these images, completely different in different people, are only a visual illustration to the content of concepts, but do not convey the whole of this content. Of course, the first of these people did not think that the word “animal” means neighbour’s cat, and the second did not think that it denotes a settled horse. All these persons thought about the same meaning of the word, as well as other everyday words of the native language. Therefore,

they easily understood each other in conversation, although the same word caused each of them completely different images.

The content of the concept cannot be conveyed by a single, concrete representation. The latter plays the role of an example of one of the private cases, which may refer to the general content of the concept.

But this does not mean that thinking in concepts does not need the help of notions, that in the processes of thinking images do not play any role. Just as knowledge of the general rule should be based on the awareness of specific examples, so thinking about concepts, in many cases it is necessary to help specific images. Many geometric problems cannot be solved unless you can imagine the location in space of the lines, angles and shapes in question. It is impossible to understand from the description the principle of any mechanism, if you do not have a clear idea of the location and interaction of its parts.

Experiments show that visual images especially often occur in us when the thought comes across some difficulties. If you do not immediately understand the meaning of the general situation, you try to think more clearly in the visual images of the specific cases to which it can relate.

§ 47. Basic Thought Processes

1) Generalization and Abstraction

At the heart of the formation of concepts is the process of generalization, i.e. the mental association of objects and phenomena of reality, having one or other common characteristics.

In the most complete form, generalization is carried out in concepts, but it begins even with the formation of representations.

If we take the ideas of memory, our images of memories, they can be divided into two groups: first, the representations that reproduce this object in one particular, especially memorable moment, and, secondly, the representations that reproduce the image of the object in general, our common memory of it.

A typical example of the performance of the second group is the image of the mother, preserved by the hero of the novel by L. N. Tolstoy "Childhood" (see above, page 101): "When I try to remember my mother ... I imagine only her brown eyes, expressing always the same kindness and love, a mole on the neck ... sewn white collar, gentle dry hand..."

The views of the first group do not contain generalizations: it is a simple reproduction of the image obtained in the perception. The representations of the second group, which make up most of our memory images, although they belong to a single object, are the result of a generalization of many individual perceptions, a kind of extraction from them. I saw my desktop from different angles, from different distances, in different light. And yet, when I imagine it, I have one image, not thousands of different images corresponding to different perceptions. In this generalized image are emphasized, given with the greatest brightness permanent, significant characteristic features of the object, and features associated with individual perceptions are absent or presented very pale.

Thus, a large part of our representations of single objects already contain some element of generalization. A further

generalization process that encompasses entire groups of similar objects can go two different ways.

The first path leads to the typical image that we studied in the chapter on imagination (p. 126), the second path to the concept.

The typical image, as we know, preserves all the individual traits and features of a single object, and the generalization is expressed in the fact that among these traits are highlighted, highlighted by those who are a burden for a whole group of objects that characterize this group. This is not the case in the concept.

To master some concept, we are distracted from all the random features and properties of individual objects and retain only properties that are significant for this group as a whole. This process of distraction from inconsequential traits and the mental selection of the essential features of this group of objects is called abstraction. As a result of generalization, which is carried out by abstraction, we no longer receive an image, but a distracted thought. This is the difference between a concept and a typical image.

The thought processes of generalization and abstraction are based on the activity of the second signalling system. Speech has introduced a new principle in the activities of the large hemispheres, which is a distraction from reality and allows the generalization of signals of the first signal system. I.P. Pavlov writes: "... speech, especially kinaesthetic irritations coming into the cortex from speech organs, there are second signals, signals. They are a distraction from reality and allow generalization, which is... especially human higher thinking."

Initially, the generalization is closely related to the action. Objects that can perform the same function in practice are combined into one group. As significant features of the subject stand out those signs on which depends, “what can be done with this subject.” This is very evident in the definitions that things give, small children: “Knife is to cut,” “Horse is to ride” and so on.

2) Analysis and Synthesis

Studying the activity of imagination, we have identified two sides in the process of creating an image - analysis and synthesis (p. 125). As we study the activity of thinking, we again meet these two opposing processes necessary in the work of thought.

Analysis is the mental dismemberment of an object or phenomenon, the selection of parts of it, features, properties; **synthesis** is the mental connection of individual elements, parts, traits into a certain whole.

In some stages of the thought process, either analysis or synthesis comes to the fore. But any complex process of thought requires the participation of both.

Let's take an example of how the process of understanding a sentence in a little familiar foreign language is proceeding. At first reading, the meaning of the sentence remains unclear. Then the work of analysis comes to the fore: a person singles out individual words and sets their meaning (remembers, looks into the dictionary, etc.). But this does not end: you can know the meaning of all words separately and still do not understand the meaning of the sentence as a whole. Another synthetic work of thought is needed—the unification of all meanings of individual words into one

meaningful whole. It is only when this association has taken place that a person begins to understand the meaning of the proposal. Not always, however, the process of understanding follows this path—first analysis, then synthesis. It often happens that a person, not yet knowing the meaning of some words, finds the general meaning of the sentence (synthetic activity of thinking) and only then begins to analytical work—distinguishes unknown words and sets their meanings.

Analysis and synthesis arise first in practical activities. In order to learn to mentally distinguish parts of a complex mechanism or mentally collect a whole mechanism from separate parts, it is necessary to have sufficient practice in the real dismantling and gathering of such mechanisms. A person who has never tried to actually disassemble and collect an alarm clock, certainly will not be able to do it “in the mind.” But, developing on the basis of practical activity, analysis and synthesis can then be carried out as purely thought operations. The creative activity of the designer, for example, is impossible without the ability to analyze in the mind complex mechanisms and carry out the mental synthesis of individual parts of them.

The processes of analysis and synthesis are based on the fundamental properties of the cerebral cortex. The large hemispheres are the body of the analysis of stimuli and the body of the formation of new connections, i.e. synthesis. Analysing and synthesizing brain activity determines the breadth and depth of fitness, balancing the body with the environment. Analysis and synthesis can, of course, be of all levels and complexity.

The specific feature of analysis and synthesis in humans is that a person may not directly refer to the subject to

highlight its certain properties and qualities or to combine them. This is achieved by the presence of two signal systems.

Analysis and synthesis, carried out in the cortex of large hemispheres in humans, cover by its action not only signals of the first signal system, but also signals of the second signal system in its interaction with the first.

§ 48. Thinking Processes when Solving Problems

The process of thinking usually begins with the fact that a person has a need to cope with some difficulty, to understand something, to solve a problem. In other words, thinking always starts with a question.

You can't call for active thought by simply recommending , for yourself or another, to "think." It is necessary that a person is faced with a question that needs to be resolved and that a person needs to resolve this issue.

Therefore, the first sign of a thinking person is the ability to see questions where they really exist. Only for those who are not used to thinking independently, there are no questions, and everything is taken for granted. Any expansion of knowledge opens up new problems for us where everything used to seem obvious, and thus awakens the thought, pushes it to independent work.

It is not enough, however, to "see" the question. It is necessary to understand with complete clarity what exactly this question is. Success in solving the problem primarily depends on how well the question is formulated. To understand the task - it first of all means to put the question

correctly, which sometimes requires a lot of thought work. But when this is done, the first step towards solving the problem has already been implemented.

Awareness of the issue is followed by the process of solving the problem. Depending on the nature of the task itself, the decision-making process can be carried out in a variety of ways. The most typical and common process of thought process in solving a problem is to make hypotheses, i.e. assumptions about how the problem should be solved, and in the verification of these hypotheses.

When I get home in the evening, I walk to the table and turn the table lamp switch. The light bulb doesn't light up. What's going on? Where's the reason? A task has arisen, and the work of thought begins to resolve it. Various hypotheses are put forward and tested. Maybe the cork went out? I turn the switch of the ceiling lamp: it lights up. So the traffic jam is fine. Maybe the light bulb went out? I screw the light bulb and examine it: no, the hairs are intact. The plug probably went bad.

Armed with a screwdriver, remove the socket, find that the fuse in the plug really burned out. The problem has been solved.

In this example, the hypothesis test was carried out through practical action, but based on thought processes. The hypothesis about the damage of the light bulb was tested in a direct way: by perception I became convinced of the wholeness of the hairs. The hypothesis that the cork had burned was checked indirectly, indirectly. Instead of unscrew the cork and examine it, I limited myself to turning the switch of another light bulb and by reasoning became convinced of the whole traffic jam: if the cork burned, could

not catch fire and the ceiling lamp. The conclusion made it much easier to carry out a practical check.

In other cases, the test of hypotheses is carried out in the whole way mentally, “in the mind.”

I have two hours at my disposal. During this time I have to visit several places located in different parts of the city. In what sequence to visit these places and what means of communication to use to keep up to the deadline? What is the plan of action? Such tasks have to be solved all the time. The solution here is reduced to a consistent outline of hypotheses, i.e. possible plans of action. But in the sense of the case in such tasks it is impossible to try in reality each of the planned plans and then to make a choice. Plans must be tested mentally.

In many tasks, the so-called mental experiment, i.e. the implementation of certain actions in the mind in order to determine what results they can lead to, plays a crucial role. The importance of a mental experiment in solving all kinds of technical, constructive tasks is very high. You can't mount a radio or make an electric call if you can't experiment mentally. The role of mental experiment in chess game is bright. Thinking about the move, the player is forced to check all the options in his mind: “If I go so-and-so, the opponent will go so-and-so, then I will do something...”

The implementation of the mental experiment involves the joint activity of imagination and thinking: on the one hand, it is necessary to imagine the situation more accurately and clearly, on the other hand, it is necessary to make a conclusion about what result should flow from this situation.

The condition for the successful solution of any problem is the availability of the necessary knowledge. In the absence of knowledge on electrical engineering, it would not have been possible in our first example to either map out the hypotheses or test them, just as in the second example it would not have been possible to do so without knowledge of the location of streets and tram routes.

But having knowledge alone is not enough. It is necessary to mobilize this knowledge at the right moment, the ability to apply them. It is possible to know the chapter on electricity in the physics textbook and still be completely helpless in solving such a problem, which is given in our example.

The presence of knowledge and the ability to own it are necessary prerequisites for the productive work of thought and the development of the mind.

§ 49. The Qualities of the Mind

Aiming for the development and upbringing of the mind, it is necessary to take into account its individual qualities. The most important of these are the following.

1. Criticalness of the mind, i.e. the ability to rigorously evaluate the work of thought, carefully weigh all the arguments for and against the proposed hypotheses and subject these hypotheses to a comprehensive test. A man with a non-critical mind is inclined to consider the first decision that came to his mind as the final one. An indicator of the criticality of the mind is the ability to look at their assumptions as hypotheses that need to be verified, to discard those that have failed this test, to refuse the actions that have been initiated if they are found to do not meet the

requirements and requirements of the task. A critical mind is a disciplined, “strict” mind.

People with a living and rich imagination should especially care about the upbringing of the true criticalness of the mind. The rich imagination in conjunction with strict and disciplined thought forms the basis of creative activity. Imagination, unmated by a critical mind, can make a person a fantasist, living impossible projects and impossible plans.

2. Flexibility of mind, under which of course freedom of thought from preconceived assumptions and formulaic ways of solving, the ability to find new solutions when changing the environment and conditions of the task.

Flexibility of mind is expressed not only in freedom from the constraining influence of stencils, but also in the ability to diversify attempts to solve, not to repeat those attempts, the wrongness of which has already been discovered. Many people do a poor job, mainly because they return to the way they first come to their mind in search of a solution, even though they are convinced that this method leads to nothing. Here there is a kind of “inertia” of thought: a person can not move his thought from the path that she once followed.

3. The breadth of thought, expressed in the ability to cover the whole issue, without losing sight of all the relevant particulars and details for the matter.

The success of a complex task always depends on how much it is possible to simultaneously cover all the data of this task, as far as it is possible, based on one group of data, not to forget about the requirements, conditions, limitations that flow from other data. Much of the difficulties

and errors observed in solving complex mathematical problems is determined by the insouciances to cover all these tasks at once.

The breadth of thought distinguishes large statesmen and military figures, as well as great scientists. All persons who had to talk to Comrade Stalin or observe his work are amazed by his absolutely exceptional ability to delve into the smallest, but essential details in the solution of the most difficult issues. "When a complex issue is discussed at meetings, Comrade Stalin listens with exceptional attention to the opinions of ordinary employees, who tell about the smallest details of his business. To these details and specific features Comrade Stalin always pays special attention" (Hero of the Soviet Union Yumashev). "Comrade Stalin asked such very special questions concerning aircraft construction that I often thought that reckless answer not to "mislead" ... I was amazed... from where a person engaged in matters of state importance knows the intricacies of aviation and flying" (Hero of the Soviet Union Baidukov).

4. Speed of thought. Different activities have different requirements for the speed of solving mental problems. It is enough to compare from this side the work of a scientist and a military leader. Sixteen years have passed between the birth of Newton's basic idea of the law of gravity and the moment when he was able to give decisive proof of this law. It took Darwin twenty years to prepare for the writing of "The Origins of Species." The warlord has a very different time frame to meet the challenges he faces. "One minute decides the outcome of the battle," Suvorov said. "I don't act for hours, I act in minutes."

Undoubtedly, for a scientist, the speed of thought is a very valuable quality, but still, under normal conditions, the

scientist has much more time than, for example, a pilot. Driving a plane in many cases does not allow for the slightest delay, and therefore a slow-thinking person can not be a good pilot.

The speed of thought is the result of the high development of other qualities of the mind, and this differs from the haste of thinking, which at first glance can be mixed with the true speed of thought, but which is essentially the property of the exact opposite.

The speed of thought depends on the ability to concentrate all the forces of the mind at the right moment, to show the greatest activity of thinking; it depends, further, on the breadth of thought, allowing you to see all sides of the question at once, and on the flexibility of the mind, which saves you time to re-return to the wrong ways of dealing; it assumes, at last, a high development of critical ability, allowing the rapid evaluation of hypotheses and immediately recline the unfit.

In contrast, the haste of the mind is a consequence of a kind of laziness of thought, forcing a person to grasp at any decision, just to stop the hard work of thought, and pushing to follow untested hypotheses and make decisions based only on a part of the data. Resolute struggle with haste of thinking is a necessary condition for the development of positive qualities of the mind.

The combination of exceptional quickness of thought with wise slowness in solving complex issues distinguished Lenin's brilliant mind. Comrade Stalin, emphasizing Lenin's ingenious foresight, "the ability to quickly grasp and unravel the inner meaning of impending events", says that he was wise and leisurely "in solving complex issues, where

comprehensive orientation and comprehensive consideration of all pros and cons are needed.”

§ 50. Speech culture

We already know that our thought achieves complete clarity and clarity only when it receives expression in external speech. We know that the inability to make one's thought clear to another shows that it has not fully understood for ourselves. It follows that the development of thinking is closely related to the development of speech. It is difficult to achieve a high culture of mind with a low culture of speech.

External speech can be oral or written. In addition, within the oral language we can distinguish between two kinds: dialogue speech (from the word “dialogue” - a conversation) taking the form of a conversation between two or more persons, and a monologue speech (from the word “monologue” - a speech of one, which is a story, a report, a lecture, etc., spoken by one person, while the rest are only listeners). Thus, we distinguish between three types of external speech: oral dialogue, oral monologue and written speech.

Every speech not only conveys a certain content, but also expresses the attitude of the speaker or writer to this content. In other words, it not only conveys thoughts, but also expresses feelings. This side of the speech is called the expressiveness of it. Speech, devoid of expressiveness, no matter how meaningful thoughts it conveys, gives the impression of dead, lifeless. In oral speech, the emotional tone of the speaker is expressed in intonation, expressions, gestures; in the written speech these means are absent, and the writer can make his speech expressive only by appropriate selection and alignment of words.

Owning speech means being able to convey your thought in a more perfect way, conveying not only the basic content, but also the subtlest shades of it. In other words, owning speech means being able to be completely clear to another.

This is achieved in various ways in oral dialogue, oral monologue and written speech. The psychological difference between these types of speech is very large; an example of this is the fact that many of the major writers were weak speakers and, conversely, many oral speakers are far from good writers.

Dialogue speech is sometimes called a speech supported. This means that in the conversation the speech of each participant is always supported by questions, answers, objections of interlocutors; if this support stops, either the speech will turn into a monologue, or the person will be silenced. In contrast, both monologue and written speech can be called unsupported speech.

Supported speech is easier than unsupported. This is explained by the fact that in the conversation the interlocutors are in the same situation, perceive the same thing and therefore can understand each other sometimes even from the floor. When a few people, standing at the stop, waiting for the tram, it is enough for one of them to say “go” or “fourth” for everyone else to understand it. Much, moreover, in the conversation is supplemented by gestures. In general, the dialogue has relatively few requirements for the ability to build a coherent and detailed speech.

A written speech is constructed in a very different way, in which everything must be said to the end. The reader can only understand from the speech itself what the author means, why he relates to a particular subject, to which

question he answers with his reasoning. One of the most common reasons for poor mastery of written speech is the inability to put yourself in the shoes of the future reader, to take into account the fact that the reader is not obliged and can not know in advance the situation, the question from which the writer comes. Therefore, the most difficult thing in writing your thoughts is the beginning. The writer himself, starting the statement, already knows the meaning of the whole composition, the reader, reading the first phrases, can not know it. Without this in mind, inept writers often start with phrases that can only make sense if they know more. Written speech should be fully deployed and coherent. Almost as much as the same applies to monologue speech. It is clear from this that these types of speech require a much higher level of speech culture and that it is impossible to develop a real skill to express their thoughts coherently, understandably and expressively, without mastering written and monologue speech (or at least one of them).

It should not be overlooked, however, that dialogue speech makes its own peculiar demands, the non-performance of which makes a person a heavy, boring and even unpleasant interlocutor. The most important of these requirements is the ability to listen to the interlocutor, understand his questions and objections and answer them, not their own thoughts.

In some people, the lack of interest in other people's words and inability to listen to appear in a very unpleasant habit - to interrupt the interlocutor, not allowing him to agree to the end. Awareness of these shortcomings and combating them are an important part of the work to improve the culture of speech.

Let's focus on another significant difference between written and spoken language.

When a person writes, he consciously and arbitrarily builds his speech, searches for suitable words, finds the best construction of a phrase, chooses the order of words, etc.

The greatest mistake is to think that a good mastery of writing saves a person from the need for such work. It's good to write - it doesn't mean writing quickly, easily, "automatically." It is not the one who really owns the written speech, who easily inhabits some expression of his thoughts, but the one who is looking for the best expression, who knows how to work to create such an expression.

A person who is content with the first expression who comes to mind and does not know how to work on improving it, can not be called mastering the skill of writing.

No one works so much on a word like a great master of words. "We must abandon the idea of writing without amendments forever. L. N. Tolstoy said in his youth. "Three, four times is not enough." He repeated the same idea in his old age: "I do not understand how it is possible to write and not remake everything many times" And the main purpose of this work on the word was for Tolstoy not to achieve beauty, artistic speech. The main difficulty is to express your thought quite accurately and understandably for others:

"To put in words what you understand, so that others understand you as you do, is the most difficult thing, and you always feel that far, far from reaching what should and can be achieved."

That's why Tolstoy reworked not only his works of art, but even letters that did not pursue any artistic purposes.

The manuscripts of Pushkin, Tolstoy and other great writers confirm these statements, clearly showing the “terrible”, in Tolstoy's words, the work of writers on the word.

Conscious work on the written expression of their thoughts does not always have the form of reworks on paper. You can mentally look for the right expression, finish and improve it “in the head”, and put on paper only the final result of this work. The essence of working on a word does not change from this, the other only becomes the form of it.

Oral speech in this regard is in stark contrast to writing. Good spoken language does not allow any unwrapped and long-term work on the word. It is impossible to think about building it for a long time before you say a phrase; the more it is impossible to pronounce the same phrase several times, gradually improving it.

It is impossible to do this in a monologue speech: in the report, lectures, etc. Oral speech should be showered freely and without delay. The right words must come to mind by themselves and they should fit into the correct and expressive phrases. This is only possible because spoken language, as we have seen, imposes less requirements for the cohesion and deployment of speech expression.

So, oral speech is easier, easier in structure, but it does not allow long-term work on the word in the process of speaking; written speech is more difficult, more complex in its design, but it allows you to work as carefully as possible on the verbal expression of thought. From this it is clear what an important place in the development of the common

speech culture should be occupied by written speech, which gives the greatest opportunities for conscious work on the word.

Issues to Repeat

1. What is called thinking?
2. What is the relationship between thinking and speech?
3. What is the difference between concept and representation?
4. What is the significance of perceptions in the thinking process?
- What do the terms “generalization” and “abstraction” mean?
6. Define the concepts of “analysis” and “synthesis.”
7. Identify the main steps in the thinking process when solving problems.
8. What is certainly critical of the mind?
9. What is the flexibility and breadth of thought?
10. What is the difference between quickness of thought and haste?
11. Give a comparative description of the psychological characteristics of spoken and written speech.

CHAPTER IX. FEELINGS

§ 51. General Concept of Feelings

Feeling, or emotion, is a person's experience of his attitude to what he cognizes and does: to things and phenomena of the world around him, to other people and their actions, to his work, to himself and his actions. Pleasure and displeasure, joy and sadness, love and hate, military excitement and fear, excitement and calmness - all these are examples of different feelings, or emotions.

It is necessary to fully understand the difference between feeling and sensation. In everyday speech, these words are often confused. They say, for example: "I smell", "I feel vague anxiety." Both of these expressions are inaccurate: smell is sensation, and vague anxiety is sensation. The sensations reflect the properties of things and phenomena that exist independently of man. In feelings, a person experiences his attitude to these things and phenomena. Sensations speak about the things themselves, and feelings - about how a person relates to these things, what state they cause in him.

I hear a sound, and it awakens a joyful feeling in me. The sound with its pitch, volume and timbre, which is the content of my sensation, exists independently of me; if I had not heard it, it would still exist, and nothing in it would have changed. But the joy that I feel exists only in me; if I had not heard the sound, then there could have been no joy for me about it.

Feelings are caused by certain objects and primarily depend on the properties of these objects. Therefore, we are talking about “pleasant” or “unpleasant” things, about “scary” or “funny” stories. However, feelings do not reflect the very properties of these objects, but our attitude towards them. Therefore, the same object can sometimes cause completely different feelings in different people.

Feeling is a person’s experience of his attitude to the reality in which he lives, to himself and his activities. But man lives in society, and his activity is social activity. Therefore, a person’s feelings are of a social nature, determined by his social being. Under any social conditions, a person is able to experience feelings such as pleasure or displeasure, love or hate, joy or anger. But what these feelings are aimed at, their nature, how they are experienced—all this is determined by the social being of a person.

It is impossible to separate feelings from human consciousness, to look at them as something independent of consciousness. A person’s consciousness is changing, his views, his beliefs, his worldview are changing—his feelings are changing.

Gorky showed the change in the whole system of feelings with a change in human life and activity, with a change in his views and beliefs with great depth and subtlety in the novel *Mother*. As Nilovna first becomes a witness, and then an active participant in the revolutionary work of her son, Pavel Vlasov, and his comrades, as she gets acquainted with the revolutionaries, people who sacrifice themselves for the happiness of the working class, as they open up to it great ideas in the name of which these

people go to fight the autocracy, the whole system of her feelings is changing.

Previously, her whole life was full of one feeling—fear; this fear left no room even for love for his son. "All my life I lived in fear,—my whole soul was overgrown with fear!" She says. "Beatings ... work ... she saw nothing but her husband, she knew nothing but fear! And how Pasha grew up - she didn't see, and whether she loved him when her husband was alive—I don't know! "

Now a world of new feelings has opened up for her. "Everything has become different! She says. "Woe is different, joy is different..." In place of fear, self-sacrificing love first came for the son, then for his comrades and, finally, for all working people for whose happiness they are fighting.

"All my life I was thinking about one thing - how to get around the day, live it quietly, so as not to touch me only! And now I'm thinking about everyone, - maybe I don't understand it, your affairs, but I'm all close, I feel sorry for everyone, I want everything good for everyone. "

Fear, since it remained, has also become different: before there was fear for oneself, now—for others. "All life is not like that and the fear is different—it's alarming for everyone." But this fear is more and more replaced by another feeling—hatred of the enemies of the cause for which the son and his comrades are fighting. During the first search of her house, she felt mostly fear. Her feelings during the second search were different: "Now she was not as scared as during the first search, she felt

more hatred for these grey night guests ... and hatred consumed anxiety.”

And when the opportunity opened up for her to engage in revolutionary work herself—to transfer proclamations to the factory—for the first time in her life she experienced great exciting joy: “And, feeling capable of completing the task, she trembled with joy.”

The richness of feelings is a necessary condition for the high and diversified development of inner life. Poverty and pallor of feelings impose a seal of dullness and boredom on life, make a person inactive and insignificant.

A person who is indifferent and dry cannot be a real fighter: in order to fight, one must love what one is fighting for and hate what one is fighting against. ”... You cannot defeat the enemy without learning how to hate him with all your might” (Stalin).

Love for the motherland and hatred of the enemy— these two great, sacred feelings led to the exploits of countless heroes of the Great Patriotic War, gave strength to the workers of the Soviet rear with selfless work to forge the weapon of victory.

An indifferent and dry person cannot be a creator. “... Without” human emotions “there never has been, is not and cannot be a human search for truth” (Lenin).

The great scientist I.P. Pavlov, in his letter to the Soviet youth, written shortly before his death, wrote: “Science requires man to exert great tension and great passion. Be passionate in your work and in your quest.” This applies

to any other area of human activity. Without a fiery love for one's work, there is never a creative attitude towards it. Without enthusiasm and "great passion" there can be no major successes and achievements in any case.

§ 52. The Physiological Basis of Feelings

In humans, as we know, all mental processes are based on nervous processes in the cerebral cortex. How, on the physiological side, does feeling differ from other mental processes?

Every mental process—sensation, perception, representation, thought—gets an emotional colouring, that is, it evokes a certain feeling when the corresponding nervous process spreads from the cortex to the subcortical centres: visual tubercles and other nerve centres. Here, by the way, there are centres that control the autonomic nervous system. When nervous excitement captures these last centres, numerous bodily changes occur, which, as we will see later, characterize any emotional process.

It should be emphasized that the autonomic nervous system, which affects the work of internal organs and endocrine glands, is subordinate to the activity of the cortex. Speaking about the role of the brain as the highest department of the central nervous system, I. P. Pavlov wrote: "... the higher department is in charge of all the phenomena occurring in the body."

Some cases of the occurrence and course of feelings are explained by the peculiarities of nervous processes in violation and, conversely, the maintenance of stable,

entrenched communication systems. So, considering the issue of installing and replacing a dynamic stereotype, I. P. Pavlov notes: "I think there are good reasons to accept that the described physiological processes in the cerebral hemispheres respond to what we subjectively call ourselves feelings ... Here is a feeling of difficulty and ease, vivacity and fatigue, satisfaction and grief, joy, triumph and despair, etc. "

A significant influence on the emergence and change of feelings is exerted by the connections of the second signalling system. Based on the activity of the second signalling system, which is inextricably linked with the work of the first signalling system and influencing the activity of the subcortex, a person is able to control his feelings.

§ 53. Expression of Feelings

One of the most important features of the senses is that they change the vital activity of the body and are expressed in a number of bodily symptoms.

Firstly, they cause changes in the functioning of the respiratory and circulatory organs. When excited, for example, the pulse accelerates, breathing becomes faster and deeper. With fear or sudden shock, the blood drains from the face, the person turns pale. From embarrassment or shame, people blush. In a state of anger, some turn pale, others blush. Of course, not always, of course, changes in blood circulation find an outward expression in blanching or redness, but these very changes with a strong feeling happen almost always. No wonder people have long associated feelings

with the heart and the word “heart” refers to the emotional side of the psyche. Such a meaning has the word “heart”, for example, in the following phrases: “The mind with the heart is not at odds” (Chatsky’s words from “Woe from Wit”); “From all that is sweet to the heart, then I tore off my heart ...” (“Eugene Onegin”, Onegin’s letter to Tatyana).

Secondly, feelings are manifested in facial expressions, i.e., expressive movements of the face, and pantomimics, i.e., expressive movements of the whole body.

Third, feelings are expressed in the intonation and timbre of the voice. One short word “What?” depending on the intonation with which it is pronounced, it can express a wide variety of feelings: indignation, and fright, and malevolent triumph, and confusion, and good-natured mockery. The timbre of the voice is no less expressive. According to how the voice of a person pronouncing, it would seem, quite calm words “trembles”, we sometimes notice how excited he is.

The most striking manifestations of feelings include laughter and crying.

Darwin showed that some of the expressive movements of man are the remnants of those actions that were once appropriate in the life of our animal ancestors. In intense anger, a person clenches his fists, clenches his teeth, breathes heavily through his nose, as a result of which the nostrils expand. All these manifestations, which are useless in modern man, originate from those times when the anger of our ancestor was a state preceding the

struggle, and this struggle was carried out with fists and teeth.

This does not mean, however, that all expressive movements in the life of a modern person are just a useless relic of instinctive actions. They acquired a new, very important function - they became a means of communication between people. By facial expressions, pantomime, by intonation and timbre of the voice we judge the state of mind of a person.

Of course, the most important means of communication between people is speech. But just feelings with all their subtlest nuances are not easily transmitted by means of ordinary prosaic speech. Each person knows for himself how difficult it is to describe his mood in words. In the course of historical development, mankind has created other means for transmitting feelings. The thinnest and most powerful of them is art, especially music and lyric poetry, which can be called a real "language of feelings." But in the process of everyday communication, people, of course, cannot use the means of music and poetry, and here gestures, facial expressions, especially the eyes, and intonation of the voice are of great importance. A simple frowning of the eyebrows, a slightly noticeable smile, a slight shrug of the shoulders sometimes help to understand a person's attitude to a fact.

What significance such a particular thing as eye expression can have in the process of communication is well shown by L. N. Tolstoy in the description of the first meeting of Hadji Murat, who passed to the Russians, with the governor of the Caucasus Vorontsov:

“After listening to the translator, Vorontsov looked at Hadji Murat, and Hadji Murat looked at Vorontsov’s face. The eyes of these two people, meeting, spoke to each other a lot, inexpressible with words, and not at all what the translator said. They directly, without words, expressed the whole truth about each other: Vorontsov’s eyes said that he did not believe a single word from all that Hadji Murat had said, that he knew that he, the enemy of everything Russian, would always remain so and now obey only because it is forced into it. And Hadji Murat understood this and still assured of his devotion. The eyes of Hadji Murat said that this old man should think about death, and not about war, but that he, although old, was cunning, and he had to be careful with him. And Vorontsov understood this and still said to Hadji Murat what he considered necessary for the success of the war. “

§ 54. Feelings and cognitive processes

The source of feelings is a variety of objects of reality, with which a person comes into contact in the process of his life and activity. It is clear, however, that any object can become a source of feelings only if a person either directly perceives it, or learns about it in some other way. In order to survive a certain attitude to the object, one must somehow know it. Therefore, feelings are always experienced in connection with certain cognitive processes: sensations, perceptions, images of memory or imagination, thoughts, etc.

Sometimes the source of feeling is those properties of objects (or those processes in our body) that we currently feel. Colours, sounds, smells, etc., can themselves evoke

in us certain feelings. This feeling, directly related to the sensation, is called the sensory, or emotional, tone of sensation.

Some types of sensations always have a sensual tone. These are, first of all, pain. By the word “pain” we usually mean not only the very sensations (stitching, cutting, tearing, burning, pulling, etc.), but also that unpleasant or even painful feeling that is associated with them. Constantly associated with sensual tone and organic sensations. Feelings of thirst, hunger, appetite, satiety, nausea, etc. are always either unpleasant or pleasant.

If not always, then for the most part olfactory sensations have a sensual tone. As we already know, most people rarely use olfactory sensations for practical purposes; usually we don't have to recognize or distinguish things by smell. But then the smells almost always have an emotional color, cause a pleasant or unpleasant feeling and therefore have a noticeable effect on the well-being of a person.

The sensual tone of the sensation strongly depends on the needs that the person is experiencing at the moment. The smell of food is pleasant for the hungry and indifferent or even disgusting for the well-fed. Ice cream is pleasant on a hot day and quite unpleasant in the cold.

In other cases, feelings do not depend on the most perceived properties of objects, but on the value that these objects have for us in this situation, on what these objects tell us. The same sound, for example, can cause a wide variety of feelings, depending on what it

matters. The sound of artillery fires caused a feeling of alarming tension when he talked about the raid of enemy aircraft, and he also evoked a sense of proud glee when it was the sound of salute, which the capital of the homeland greeted the valiant troops of the Soviet Army.

In some cases, individual objects acquire a very stable emotional colouring for a person due to the memories that are associated with this object. In these cases, the significance of the mechanism of temporary connections is clearly pronounced; any object connected in the past with this feeling can cause it again. Thus, many of the neutral properties of objects and phenomena become causative agents of feeling according to the general mechanism of the conditioned reflex. If in our past life any smell, color or sound was associated with a joyful or difficult event, then this connection can be so strong that the very smell, color or sound subsequently always seems to be painted with a joyful or heavy feeling. This often explains why a person especially loves or does not like any smell or color.

Sometimes, finally, the feelings that arise in us are not related, directly to what we currently feel and perceive, but entirely relate to what we think, remember and imagine.

Thus, emotional colouring can have not only sensations and perceptions, but also ideas and thoughts. Any cognitive process can cause these or other feelings.

The philosophers of antiquity Plato and Aristotle expressed one remarkable idea: the beginning of philosophy is surprise. This means that the active,

creative work of thinking begins when a person not only encounters something incomprehensible, giving rise to a question, but when he is “surprised,” that is, he will emotionally light up with this question when the incomprehensible will cause him to be surprised. This thought emphasizes the role in the process of cognition of intellectual feelings, that is, feelings directly related to thought processes.

The most important intellectual feelings include, along with a sense of surprise, or amazement, a sense of doubt and a sense of confidence.

A sense of doubt arising in the absence of solid evidence and not allowing you to calm down on any seemingly appropriate solution to the issue makes you complete the mental work, despite any difficulties that stand in its way.

A sense of confidence gives a person strength to fight for his convictions, firmly and courageously uphold the correctness of his views. The impartial knowledge that such and such thoughts are correct is not enough to become a genuine fighter for the idea.

A thought acquires all its strength and sharpness only when it is permeated with a deep feeling. It never happened that big thoughts were created by a person indifferent to the subject of his studies. Copernicus, the creator of one of the greatest upheavals in science, wrote that his astronomical reflections were born from the “incredible sense of uplift and inspiration” that he experienced “when contemplating and uncovering the wonders of the sky.” It is possible, however, and the opposite—negative—the influence of feelings on thought

processes. This happens when a thought submits to feeling, while losing its independence. Instead of weighing all the pros and cons of any hypothesis, a person begins to biasedly choose the arguments in favour of the decision on which the feeling pushes him. And thinking ceases to be a means of cognition,

In life, situations are always possible when the “arguments of the heart” are in conflict with the arguments of the mind, when, in Chatsky’s words, “the mind with the heart is not at odds.” The correct way out of such a situation can never be to drown out the “voice of reason.” In the final analysis, the solution of the question should always belong to the mind.

§ 55. Feelings and Activities

The strongest source of feelings is in human activity. Whichever of the main types of activity we take - work, study, play—we will always see how many diverse feelings arise in the course of this activity. In relation to the game, this is completely obvious: no one will, on their own hunt, take up any game if it leaves him completely indifferent. It is easy to understand, however, that even deeper, stronger and more diverse feelings should be associated with labour and educational activities, which constitute the main content of human life and which largely determine the life fate of a person.

The very process of activity - labour, educational, gaming - can be a pleasure. Doing what you love is always a source of joy.

This is evidenced, for example, by an excerpt from the biography of A. G. Stakhanov, depicting his emotional state while working in the mine on August 31, 1935, on the night when he first broke the established norms, giving instead of 13-14 tons of coal 102 t. "Stakhanov did not feel tension. Extraordinary gaiety swept over him. He wanted to sing, it seemed to him that his hammer was laughing with joy and lightness. "

"Suddenly - someone screams through the roar that the shift is over. This Stakhanov least expected. He was just getting into work. It seems that no more than an hour has passed, nothing said about fatigue - neither muscles nor a hammer, and suddenly - six hours have passed! "

In many types of activity there are some crucial points on which the result of all previous preparatory work depends. Passing exams for the student, the first performance in a new role for the actor, conducting a responsible, long and carefully prepared operation for a novice surgeon are examples of such crucial moments. Approaching these moments is characterized by the experience of a peculiar feeling of tension, more and more increasing and changing, when the decisive moment passes, a sense of resolution, release from tension. In some activities, a very sharp change in feelings of tension and resolution can be observed over short periods of time. Nowhere does this manifest itself so vividly as in a combat situation, when such short and seemingly simple moments in activity,

Sholokhov in one of the chapters of the novel "They Fought for the Homeland" will give a beautiful image of the change of tension and resolution, telling about how a

fighter Lopakhin shot down a fascist plane in repelling the attack of dive bombers.

“Slightly paled Lopakhin with his gun out and firmly resting his foot on the lower ledge of the trench, carefully aimed ... No, this time Lopakhin could not, had no right to miss! It was all petrified, as it were, only his hands, of an iron fortress, the hands of the slaughterer, merged together with a gun, moved to the left, and the narrowed eyes, bloodshot and blazing with hatred, glided in front of the plane pulled upward, taking the necessary lead. “After two misses, Lopakhin managed to get on the enemy plane and shoot him down, “and only then Lopakhin sighed with enormous and joyful relief, sighed with all his chest ...

- Here's how to beat them! ”He said, fanning his whitened nostrils, no longer hiding his triumph.”

He “with trembling hands hastily folded the cigarette, tired and somehow limp, sat down at the bottom of the trench, several times in a row eagerly dragged on.

- I thought that he would leave, damned! He said more calmly, but his excitement was still slowing down his speech. “

The source of diverse and very strong feelings are those difficulties without which not a single activity can do.

Attitude to difficulties can be very different. They can cause a feeling of uncertainty, confusion, helplessness, frustration, but they can also be a source of directly opposite feelings: self-confidence, self-awareness of

one's strength, peculiar experiences of vivacity and arousal. The very process of overcoming difficulties can be associated with a joyful upsurge and give pleasure unknown to people who are accustomed to avoiding difficulties and evading the struggle against them. "Remember, comrades," said Comrade Stalin at the graduation of the academicians of the Red Army, "that only those cadres are good who are not afraid of difficulties, who are not hiding from difficulties, but rather who meet difficulties in order to overcome and eliminate them." The life of prominent figures of the Bolshevik party, and above all of Lenin and Stalin,

Failure, failure to achieve the set goal can be experienced very differently. In some people, failure gives rise to despondency, sadness, a depressed and depressed mood, while in others it causes a rise in a sense of tension and a characteristic feeling of anger at oneself, at one's ineptitude, a feeling that forces one to mobilize all one's strength and at all costs achieve one's own. A person who is "angry" after failure can sometimes achieve a result that was stubbornly not given to him while he was in a calm state.

No less vivid feelings are caused by success, by the consciousness of the goal achieved. Feelings of joyful satisfaction, glee, legitimate pride, relief after strenuous efforts usually accompany the completion of a large and difficult work.

§ 56. Emotional Memory

Emotional memory is expressed in remembering and reproducing feelings.

Remembering the past events of our lives, we not only reproduce the visual images of people and environments, the words spoken by our interlocutors, the thoughts evoked in us by these words; sometimes with such recollections feelings experienced earlier come to life in us. A meeting with a person who is not indifferent to us, but who is associated with a memory of a very joyful event in our lives, can color the whole day in a joyful mood. We can turn pale at one memory of a long-held fear or blush at a simple mention of an act that at one time caused an acute sense of shame.

The great Russian artist and director Konstantin Stanislavsky writes in his book “The Work of an Actor on Yourself”: “Since you are able to turn pale, blush at the same memory of what you experienced, since you are afraid to think about a long-lived misfortune, you have a memory for feelings, or emotional memory. “

A.I. Herzen, as an epigraph to the first part of his famous book, *The Past and Thoughts*, took the following lines of N. Ogarev:

*When we, in our memory, Pass the old road,
In the soul, all the feelings of the old days
Come back to life a little,
And the sadness and joy are the same in her,
And she knows the alarm ...*

Emotional mumble is an important condition for a person's mental growth. Anyone who would have completely forgotten the feeling of joy and satisfaction that accompanied the fulfillment of a noble deed, as well as the feeling of shame caused by a bad deed, that

person would have a weak impulse for a new deed of noble deeds and abstinence from evil deeds.

The significance of emotional memory lies, moreover, in the fact that it increases the richness and diversity of emotional life: not only the present, but also the past becomes a source of feelings.

§ 57. The Basic Qualities of Feelings

Feelings are distinguished by a huge variety of qualities and shades. In this case, one feature that distinguishes feelings from other mental processes can be noted. Most feelings can be easily grouped into pairs with opposite qualities: pleasure - displeasure, joy - sadness, fun - sadness, love - hate, excitement - calmness, etc. This feature is called the polarity of feelings. Opposite emotional qualities form, as it were, poles, between which all sorts of intermediate shades of feelings are located. These very opposite qualities are called polar qualities.

Of the greatest importance are two pairs of such polar qualities that characterize feelings.

The first of these pairs is pleasure and displeasure. Almost every feeling is pleasant or unpleasant, associated with pleasure or displeasure. Feeling, as we know, is called a person's experience of his attitude to what this feeling is aimed at. The attitude is always positive or negative. Therefore, feelings are positive or negative. In feelings of pleasure, joy, happiness, fun, glee, love, a positive attitude is experienced, while in feelings of displeasure, suffering,

sadness, grief, sadness, despair, hatred, disgust—a negative attitude.

It is very important to note that a person's experiences often combine both positive and negative attitudes, so that the same experience includes both pleasure and displeasure. Remembering the past happiness is pleasant, because it makes it possible to relive this happiness at least mentally, but it also contains sadness from the knowledge that this happiness is no longer there. Feelings associated with overcoming difficulties also usually include both positive and negative sides. After all, one can't call an overcoming of difficulties such an action that does not contain anything unpleasant, heavy, which gives only pleasure. To overcome this difficulty, one has to go through a lot of unpleasant, and maybe even painful moments. However for a person

Another, no less important opposite, or polarity, of emotional qualities is the opposite between the active and passive character of feeling. Feelings of excitement, tension, uplift, vivacity are active; feelings of peace, carelessness, depression, despondency have a passive character. A striking example of the polarity between the active and passive character of a feeling is the change of a sense of tension by a feeling of resolution, of relief, which accompanies the execution of a decisive action in the course of some responsible activity.

From this point of view, sthenic feelings are distinguished (from the Greek word "stenos"—strength), which increase vital activity, increase strength and energy, and asthenic

feelings (from the Greek word “asthenes”—weak, powerless), lower vital activity and reduce strength and energy. There is a stormy, excited joy that causes a surge of strength and a thirst for activity - this feeling is sthenic, but there is a quiet joy associated with liberation from cares and work and causing a thirst for peace; such joy can be called asthenic feeling. Grief can act on a person oppressively, overwhelmingly, lead to dull apathy and inaction; but there may be courageous and deep sorrow, causing not relaxation, but the tension of all human forces.

The contrast between sthenic, active, and asthenic, passive, feelings in those emotions that arouses danger in a person is very clearly revealed. Faced with danger can cause a person a severe, depressing sense of asthenic nature; this feeling is called fear. Fear makes a person helpless, weakens his physical and mental strengths, and suppresses his mental life. However, a collision with danger does not always cause fear. A directly opposite reaction to danger is also possible—a sthenic feeling, which can be called a feeling of military excitement. It increases the physical and mental strength of a person, aggravates his quick wit and resourcefulness, increases the speed and accuracy of actions.

“A Soviet pilot,” writes A. Tolstoy, “will never shy away from battle, and the closer the danger is to him, the angrier his heart, the more calculated his movement, the faster his reflexes. This is the intense, calculated delight of the battle.”

Feelings of fear and military excitement are polar in terms of the antithesis between passive and active feelings. But they are also polar in terms of the antithesis between displeasure and pleasure. Fear is definitely a negative feeling; it is always unpleasant, and with severe degrees it is painful. The feeling of military excitement includes positive experiences: the joy of struggle, the proud consciousness of one's strength, etc.

There are people who, in the fight against danger, find the greatest joy of life. Such, for example, was the great Russian commander Suvorov, about whom one of his biographers writes: "Whenever he had to spend several years outside the combat situation, he literally began to grow weak. Figuratively speaking, he slept well only under the roar of guns. So it was with him all his life until his very old age. "

A remarkable Russian revolutionary, one of the best associates of Lenin and Stalin, Yakov Mikhailovich Sverdlov says in one of his letters: "... The struggle of people with external conditions and with each other for the dominance of new beginnings of life is full of exciting interest. To take part in this struggle is a great pleasure. "

Marx answered the question of what his idea of happiness was, in one word: "Fight".

§ 58. Affects

Affects are called emotional processes that swiftly and violently seize a person and have the character of relatively short-term outbreaks. Such, for example, explosions of anger, despair, fear.

An example of an affective outburst of anger is the reaction of Kutuzov described by L.N. Tolstoy during the Battle of Borodino to a progress report on the left flank brought to him by the adjutant wing Volzogen. The foreigner Volzogen, a man deeply alien to the Russian army and the great patriotic upsurge that animated it, completely falsely understood the meaning of the unfolding military operations. Being dismissive of the Russian troops and their commander in chief, he reported to Kutuzov with a half-mocking smile that all points of position were in the hands of the enemy and that there was nothing to repel them, since the troops were in complete frustration and could not be stopped.

—“You saw? Did you see? ..—Kutuzov shouted frowning, quickly getting up and stepping on Volzogen. ”How do you ... how dare you! ..” he cried out, making threatening gestures with shaking hands and choking. ”How dare you, gracious sovereign, say this to me.” You don’t know anything ... The enemy was hit on the left and hit on the right flank. If you have not seen well, gracious sovereign, do not allow yourself to say what you do not know...

Everyone was silent, and one heavy breath was heard of the breathless old general.”

A variety of feelings can have an affective character. For example, an affective outburst of joy is quite possible, the picture of which is painted by L. Tolstoy in War and Peace, depicting Nikolai Rostov’s arrival from the theatre of operations home: “he didn’t have time to reach the living room, like something swiftly, like a storm , flew out of the side door and hugged and began to kiss him. Another, third, the same creature jumped out of

another, third door; more hugs, more kisses, more screams, tears of joy. He could not make out where and who was dad, who was Natasha, who was Petya. Everyone shouted, talked and kissed him at the same time. ““ Natasha ... jumped like a goat, everything was in one place and screeched shrilly. “

Every feeling, as we know, changes the vital activity of the body and is expressed in a variety of bodily symptoms. With affects, this outward, bodily expression of feeling is especially vivid. Usually it has the character of motor overexcitation in affect, manifesting itself in many violent movements, words, actions. But sometimes affect has exactly the opposite external expression - the delay of all movements, the complete cessation of all activity. A person may be “numb” from fear, anger, or despair.

In the 55th and 56th chapters of Volume IV of War and Peace, two affective experiences of grief are depicted: Mount Natasha after the death of Prince Andrei and Mount Old Countess Rostova after the news of the death of her youngest son Petya. A sharp contrast to the violent reaction of the old countess (she beats, screams, rushes about) is Natasha’s “stupor”. “Natasha spent most of her time, alone in her room, with her legs in the corner of the sofa and, tearing something apart or crushing something with her thin, strained fingers, stubbornly motionless gaze looked at what his eyes stopped.”

It is often said that in a state of affect a person “loses his head”, “doesn’t remember himself”, “doesn’t realize what he is doing.” This is not true. Only a mentally ill person can, in a fit of furious anger or rage, really be

unconscious and subsequently not remember what he did at that time. A healthy person never loses consciousness and memory from anger or any other affect. An example is the hero of one of the works of L. N. Tolstoy, who committed the murder in a state of frenzied anger. He says, talking about his crime: "When people say that in a fit of rage they don't remember what they are doing, this is nonsense, not true. I remembered everything and did not stop remembering for a second. " "Every second I knew what I was doing."

It is equally wrong to think that in a state of affect a person cannot control himself and therefore should not be held responsible for the actions that he performed at that time. Indeed, with a strong affect, a person sometimes loses power over himself and commits actions in which he subsequently bitterly repents. However, the reason for this is not so much the affect itself as a lack of will, a lack of self-control. Affects do not have irresistible power over a person.

Having given free rein to affect, "surrendering to it", it is really difficult to pull yourself together and take control of yourself. But "difficult" does not mean "impossible". A person with a strong will be able to overcome this difficulty. Much easier, however, is another: do not give vent to affect, do not allow yourself to "surrender to it." To prevent an affective flash, you must prevent it from starting. There is an old everyday rule: before surrendering to a flash of anger, you must mentally count to ten. (One of Chekhov's heroes, a very quick-tempered person, counted up to a hundred in such cases.) Turgenev advised a person who was overly heated in a dispute and began to lose power over himself to hold ten

times with his tongue inside his mouth before uttering a word.

The psychological meaning of these very useful tips is to delay the onset of the outbreak and thereby get time to pull yourself together; in addition, distraction of extraneous mechanical operation can be cooling.

§ 59. Mood

Feelings are usually directed at some object: a person is happy about something, sad about something, angry at something, afraid of something, loves someone. But along with such feelings relating to certain objects, we notice another kind of emotional state. We say that a person is in a joyful, cheerful mood. This means that he is not happy with just one fact; this means that at this time he is generally inclined to joyful, cheerful feelings that he can be glad of such a thing that at another time would leave him indifferent. When a person has an angry, irritated, "bad" mood, everything is angry with him: both the tram - because it does not come to a stop in a timely manner, and the neighbor on the tram - because he inadvertently pushed him, and the newspaper - because he didn't easy to fold.

We call a mood a general emotional state that stains for some time all behaviour and all human experiences. The mood can be joyful or sad, angry or good-natured, peppy or lethargic, upbeat or dull, etc. Very often the mood is based on a certain feeling caused by some event that has significant significance for a given person. Bad news received in the morning can spoil a person all day, creating an alarming or sad mood. Serious success in

work can cause a joyful, high spirits for several days. Feeling has the ability to spread or spread from the object to which it is caused, to other objects associated with it. As a result, we get that general emotional state called mood.

This process of “spreading” feelings, creating a mood, is well shown by L. N. Tolstoy in the story “After the Ball”. Captured by love for Varenka B., the hero of the story during the ball, especially significant and happy for him, has a loving, enthusiastic feeling for everything that he sees: “I hugged the whole world at that time with my love. I loved the mistress ... and her husband, and her guests, and her lackeys ... But to her father (that is, to Father Varenka. - B.T.), with his boots and with a gentle smile that looked like her, I felt at that time some kind of enthusiastic, tender feeling. “After the ball, he can’t sleep, because he feels too happy. He goes outside, and the feeling of happiness with which he is full again colours the whole world for him.”And horses swaying evenly under wet arches under glossy arches,

Not always a person is aware of what caused his mood. The event that caused the initial feeling could be outwardly not very noticeable: a remark thrown by one of the interlocutors, a frown, a smile that seemed mocking. The very fact was soon forgotten, but the feeling evoked by him remained and created an alarming, dissatisfied mood, which may seem unreasonable.

To a certain extent, the mood depends on the physical well-being of a person. Strong fatigue, lack of sleep, and malaise “lower” mood, while healthy rest, good sleep, and physical alertness contribute to “raising” the mood.

The mood of some people is greatly influenced by nature, season, weather. Of all the seasons of the year, Pushkin was fond of autumn most of all, when he was especially easily able to create an elevated, vigorous mood, causing a surge of creative forces.

One should not think that mood is a passive reflection of the external conditions in which a person is. People with a rich content of mental life and with a strong character can in the most difficult conditions maintain a cheerful, elated and even joyful mood. To a certain extent, the man himself is the “master of his mood.”

Read, for example, the following passage from a letter from Yakov Mikhailovich Sverdlov. Sverdlov wrote this letter to his wife from the remote Ostyak village Maksimkin Yar, where he was in exile: “Imagine my position. In a miserable shack, which is difficult to call a room ... with a small seven-linear light bulb, without the slightest hint of any friendly environment ... almost without books, without newspapers, without letters. And at the same time, I am not discouraged, not miserable ... I have not lost my usual vivacity, but, perhaps, my cheerfulness. It seems to you a contradiction. Meanwhile, it is the way I write ... “

§ 60. A Sense of Duty

A sense of duty is the most important, central in that group of feelings, which are called moral feelings and which are associated with a person's experience of his attitude to other people and especially to certain social groups: his people, the party, the Komsomol, his collective farm, his factory, my school, my family.

The basis of a sense of duty is a person's consciousness of the interests of the social group to which he belongs, and his obligations towards it. But knowledge of these interests and obligations is not enough. A purely rational, dry knowledge of how to act, what should be done, cannot be the basis for the development of duty. It must turn into a strong and deep experience. If a person experiences the misfortunes of his homeland as acutely as his own misfortunes, the production success of his plant, as his own success, the success of his class, as his luck, then he becomes able to survive his duty, and not just know it. Therefore, we are talking about a sense of duty, and not about simply knowing it.

Out of the consciousness of duty, an assessment of human actions as good or bad arises. Such an assessment is always associated with the recognition of the social significance of these actions and this essentially differs from the assessment of actions as pleasant or unpleasant.

Evaluation of their own actions as good or bad, and the assessment is not only rational, but also emotional, is called conscience. Consciousness of the correctness of one's actions - "a calm conscience" - can bring a person the greatest joy and satisfaction, give self-confidence and strength to resist slander and unfair accusations. Consciousness that a bad deed was committed causes "remorse", "pangs of conscience", a feeling of remorse. The voice of conscience in these cases requires an effective correction of the committed act. If a person does not reveal his repentance at all, he shies away not only from correction, but also from an open admission of his mistake, he creates that long state

of severe internal anxiety, which is characterized by the words “unclean conscience.”

And a sense of duty and a sensitive conscience arising from it suggest a person’s high consciousness. But they also suggest the presence of deep and effective feelings: love for the homeland, devotion to the party, a sense of organic connection with your team, etc. Under this condition, performance of a duty ceases to be a heavy duty. It becomes a joyful affair, happiness in life.

§ 61. Individual Differences in the Field of Feelings

Differences in the emotional side of the psyche are crucial for the psychological characteristics of a person. To understand a person, one must know not only how he thinks, how he acts, but also how he feels.

What are the features of feelings with which people differ from each other?

1) The Direction of the Senses

The most important differences in the emotional field are determined by what the feelings of the person are directed at, what is the content of these feelings. In the poem “Duma” Lermontov wrote: “And we hate, and we love by chance.” If feelings are sprayed onto random objects and arise on random occasions, they cannot serve as a powerful engine in creative work and life struggle. Moreover, they can become an obstacle,

constantly distracting a person from the main task of his life, knocking him off his chosen path.

To understand the emotional life of a person, you must first understand how connected the feelings that play the greatest role in his life, with his worldview, the main goals that he sets himself. You need to understand whether he loves, hates, inspired, rejoices, upsets, fundamentally or accidentally; to understand whether his feelings flow from beliefs expressing the main focus of his personality, or whether they are caused by the impressions of the moment.

A feeling of hatred, for example, can be both high and shallow, depending on what it is aimed at. Hatred of the enemies of the motherland is a high feeling that inspires a person to exploits and gives birth to heroes. An evil, envious feeling for a person who is ahead of me in the competition is a shallow feeling, causing squabbles and pushing to commit unworthy acts. Among the remarkable Russian people of the past, Vissarion Grigorievich Belinsky was distinguished by his great principle of feelings. It was a man with a fiery soul. The contemporaries were particularly struck and created by his exceptional moral authority that the fiery feelings of him always had a fundamental character, was absolutely disinterested. "Belinsky was ... truly passionate and truly sincere man ... who knew how to love and hate disinterestedly. I have never met a man like him, either before or after "(Turgenev). In one of his private letters, Belinsky said of himself: "Nature has given me little ability to hate for the injustices that have personally been done to me; I'm rather able to hate a person for a difference of

beliefs or for shortcomings and vices, which are completely harmless to me. “

A remarkable document, breathing deeply fundamental indignation, anger and even hatred, is his famous letter to Gogol, provoked by the reactionary and harmful book of the latter, “Selected Places from Correspondence with Friends”: “If you found an attempt on my life,” wrote Belinsky,—and then I would no more hate you as for these shameful lines... This is not about my or your personality, but about an object that is much higher not only me, but even you: here it is about the truth, about Russian society, about Russia. “

2) Depth of Feelings

Of great importance for the characterization of emotional life is the depth of feelings. Deep is called a feeling that affects the most essential aspects of a person’s life, which has numerous connections with his thoughts, aspirations and desires and is reflected in his whole spiritual life.

Not every strong feeling, characterized by rapid flow and bright external expression, is a deep feeling. Passion is a shallow feeling, although it can be strong.

True love differs from passion primarily in its depth. All affects are strong feelings, but many of them are very shallow. A violent but short-lived outburst of anger is an example of a strong but shallow feeling. Fundamental hatred stemming from a person’s beliefs and determining the path of his life’s struggle is an example of a deep feeling.

The depth of feeling is not necessarily associated with violent experiences, nor - even more so - with violent manifestations. "Calmness is often a sign of great, albeit latent power; the fullness and depth of feelings and thoughts does not allow furious impulses" (Lermontov, "Hero of our time").

A rare depth and strength of feelings with extreme restraint of their external expression is a characteristic feature of the psychic appearance of Uli Gromova (The Young Guard). Repeatedly showing "a huge world of feelings and thoughts", "the whole secretive world of genuine passions" that lived in this wonderful Soviet girl, A. A. Fadeev, however, emphasizes: "Ulya was closed and only revealed herself in moments of a special state of mind". An internal storm and external calm - this is how we see her, for example, from the moment she was forced to return to Krasnodon after an unsuccessful attempt to evacuate: "She walked all the way next to the cart, silent, as if calm, and only these features of gloomy power that were visible in her eyes, "nostrils, lips, betrayed, what storms the waves went in her soul.

The wealth and richness of a person's emotional life depends not so much on strength as on the depth of his feelings. There are people who tend to get very involved in people and business. But any strong hobby only then gets vital importance when it turns into deep love. People who are able to get involved, but not able to love, inevitably remain superficial and empty.

3) Sustainability of Feelings

In the closest connection with the depth of feelings is their stability. A deep feeling is stable and lasting, while a shallow, albeit strong, feeling is short-lived and transient.

The instability of feelings can take two different forms.

In some people, instability of feelings is expressed in the form of capricious variability of mood. Such people easily catch up with feeling for any reason, but since their feeling is not deep, it is just as easily replaced by a new one, even if just the opposite. They are alarmed at any hint of danger, but they need only one calming news to change their anxious mood into a carefree one. They greatly experience grief, but forget about it at the first joyful impression. Their mood depends on any accidental exposure.

In other cases, instability of feelings is expressed in the form of rapid emotional dullness. Many feelings with the frequent repetition of the effects that cause them weaken and, finally, completely disappear. The sounds of artillery fire, frightening a person who first got into a combat situation, do not have such an effect on experienced, seasoned fighters.

But it would be completely erroneous to think that all feelings weaken as one gets used to the influences that cause them. The feeling deeply affecting a person's personality, connected with various interests, does not weaken from repetition. Such feelings are not dulled. If a person truly loves a business, if it is his true vocation, then, constantly engaged in this business, he not only

does not grow cold towards him, but, on the contrary, begins to love him even more. The pleasure delivered by good music is enhanced by listening to it again. Whoever loves and understands fiction, he constantly re-reads the best works, and as a result they do not cease to please him and make an impression.

People who do not have deep and persistent interests, who seek only entertainment in life, quickly cool off to everything, since any feeling affects them very superficially. Such people develop severe emotional dullness, and its consequence is boredom. This category of people includes, for example, Onegin and Pechorin. The latter himself admits that rapid dullness is the main misfortune of his life. "Everything is not enough for me: I get used to sorrow as easily as to pleasure, and my life becomes emptier day by day."

4) The Effectiveness of Feelings

By the validity of feeling is meant the ability to induce a person to act. In this regard, people's emotional experiences can be very different. In some people, feelings are a powerful incentive; in others, they have little effect on behaviour. People of the latter category may very strongly experience some feeling, but this experience does not affect their actions in any way. Differences between people in the degree of effectiveness of feelings are of great importance, since feelings are important mainly because they are the driving force in human behaviour.

A persistent and deep feeling, possessing a very large effective force, directing all thoughts of a person and

leaving an imprint on all his activities, is called passion. Passion captures a person and therefore is a great power. Love for the motherland, for one's people, love for science or art, becoming a passion, leads to the achievement of feats and the creation of great works. But passion, aimed at small and unworthy goals, becomes fatal to humans. A remarkable depiction of the disastrous power of the "evil passions" enslaving a person was given by Pushkin in a number of works: "The Queen of Spades" (passion for enrichment), "The Mean Knight" (avarice), "Mozart for Salieri" (envy that became passion).

When they talk about "passionate love", "passionate hatred", "passionate attitude to business", they mean a deep, persistent and very effective feeling.

The extreme opposites in terms of the effectiveness of feelings are, on the one hand, sentimental people, on the other - passionate people. The former passively admire and enjoy their feelings, talk a lot about them, but have little interest in bringing them to life. The latter do not talk about their feelings, but live by them, trying to translate them into action.

In this respect, the following words of N.K. Krupskaya, said by her at the II Congress of Soviets of the USSR, in the coming days after the death of Lenin, are of deep interest:

"Comrades, these days, when I stood at the tomb of Vladimir Ilyich, I changed my mind all his life, and that's what I want to tell you. His heart was beating with passionate love for all working people, for all oppressed. He never said this himself, and I probably

would not have said it at a different, less solemn moment ... This feeling made him passionately, eagerly seek an answer to the question - what should be the ways to free the workers? “

Questions to Repeat

1. What is called feeling or emotion?
2. What is the difference between feeling and sensation?
3. What is the social character of feelings expressed in?
4. What is the physiological basis of feelings?
5. In what bodily symptoms are feelings expressed?
6. What is the relationship of feelings with cognitive processes?
7. Describe the intellectual feelings.
8. What is the relationship of feelings with human activity?
9. What is emotional memory?
10. List the basic qualities of feelings.
11. Give a definition of concepts: “affect”, “mood”, “passion”.
12. What feelings are called moral feelings?
13. What is the basis for the development of a sense of duty?
14. List the most important features of the feelings that can characterize a person.

CHAPTER X. WILL

§ 62. Motives and Goals

The term “will” refers to the side of mental life that receives its expression in the conscious purposeful actions of a person.

Human actions are based on certain motives and are aimed at certain purposes. Motive is what motivates a person to act; the goal is what a person seeks to achieve as a result of this action.

By setting a goal for himself, a person is always guided by certain motives, certain motives. Setting a goal cannot be done for no reason. Something should encourage a person to direct his activities towards this goal. Motives are what motivates a person to set certain goals. Without knowing the motives, it is impossible to understand why a person aspires to one goal and not to another, therefore, it is impossible to understand the true meaning of his actions.

The initial impulse to work is the need, i.e. the need for something by the person. It is possible to distinguish between the needs of material - the need for food, clothing, housing, etc. - and spiritual, or cultural, - the need to communicate with people, the need for education, the book, music, etc.

Spiritual needs have historically arisen in the process of social work as the initial material needs are met and further developed and refined. The work itself was born

out of the need to meet these basic material needs. But in the future it became a source of new needs, the most important of which is the need for the work itself, which is based, on the one hand, the organic need for activity, characteristic of any healthy organism, on the other - the need to communicate with people, the main and the original form of which is labour, industrial communication. Full development of this need for work could get only in the socialist society, when labour, becoming really free, turned “from a shameful and heavy burden, as it was considered before, in the matter of honor, in the cause of glory, in the cause of valor and heroism” (Stalin).

The need evokes the desire to satisfy it, the desire can be expressed in attraction or desire.

Attraction is a vague aspiration, not related to a clear representation of the goal. The peculiarity of attraction is perfectly conveyed in Pushkin’s famous words: “When it would not be a vague attraction of something thirsty soul...”

Desire is called a conscious desire for a certain object, for a certain purpose.

The transformation of vague desires into conscious desires is a prerequisite for conscious and purposeful activity in which the will of man manifests itself.

Not all desire leads, however, to action. A person may wish that he is not in his power at all, which does not depend on his actions: a person may wish that tomorrow was good weather, that the book he needed was in the library unoccupied, that the play involved the performer of

interest, and so on, there is a conscious focus to a certain goal, but there is no desire to act to achieve this goal. because there is no consciousness that achieving it depends on the person who wants it.

Such desires can be called ineffective desires as opposed to effective desires, which are connected with the idea not only of the goal, but also of the means to achieve it, with the awareness of the possibility to achieve this goal and with the desire to act in this direction.

Effective desires and are the basis of strong-willed human activity.

Needs are the premise on which the motives of human activity are formed. On the basis of the needs in the process of public life develop the feelings of the person and in particular his public feelings, create his interests, formed views and beliefs, finally formed his worldview. In feelings, in interests, in beliefs, and in the worldview of a person, as they become a source of effective desires, the motives of his activity are.

§ 63. Involuntary and Arbitrary Movements

In previous chapters, by studying individual mental processes, we have noted many times that these processes may be involuntary or arbitrary, unintentional or intentional. We distinguished unintentional and intentional memorization and reproduction; we talked about involuntary and arbitrary attention. In the simplest and most original form, this difference is found in the field of movements.

A typical example of involuntary movements are unconditional reflexes: coughing, sneezing, blinking, pulling back the hand at a sudden prick, shuddering at a sharp and unexpected sound, etc. Involuntary character have usually expressive movements in which feelings are manifested: with strong anger a person involuntarily sticks his teeth or clenches his fists; sincere laughter or smile are involuntary.

Let's take some simple cases of arbitrary movements. I want to raise my right hand and raise it. I want to take a pencil off the table, reach out and take it. What are the characteristics that distinguish these movements and give reason to call them arbitrary?

First, the consciousness of the goal and the desire to achieve it. Secondly, the past experience of the ability to make this movement. Both of these signs are necessary signs of any arbitrary movement. At first glance, it may seem that there are "aimless" arbitrary movements. "I can," they sometimes say, "raise my hand arbitrarily without any purpose. Now, I'll pick it up, even though I don't need it for anything." And to prove the rightness of his words, the man really raises his hand. In fact, the person who thinks so proves exactly the opposite: he raises his hand in order to show that he can arbitrarily make a "aimless" movement. Arbitrary movement is a movement focused.

Man is not born with the power to make arbitrary movements: this skill he gradually masters. Already in the first years of life the child learns most of the most important movements, and first he makes them involuntarily. We can only make the movements we have learned arbitrarily. The arbitrary exercise of many movements is not available to us simply because such movements have never been seen in our experience.

Arbitrary movements, as I.P. Pavlov points out, have a conditional reflex nature.

Arbitrary movements occur on the basis of previously formed temporary connections in the cortex of the large hemispheres. Special experiments have shown that the motor analyser, as well as other analysers, is able to enter into a temporary, conditional relationship with a variety of stimuli. Irritants, becoming the beginning, the jolt of movement, can be very distant and indirect, but their action is a prerequisite for movement.

The specific feature of arbitrary movements lies in the special role of the word as an irritant. It is the words spoken in the internal speech that are the “trigger signals” that cause deliberate movements. Thus, arbitrary human movements are inextricably linked to the operation of the second signal system, which has a regulatory effect on the first signal system.

Arbitrary movements are the simplest manifestation of will. The development of children’s will begins with the fact that the child learns to manage his movements. The manifestation of will, in particular, is when inhibiting a movement caused directly by an external irritant. At the same time, the delay of the response, as well as the beginning of deliberate movements, is the result of the second signal system (when verbal instruction or acceptance of a certain intention).

Thus, the implementation of movements in accordance with the task, as well as arbitrary braking of movements, is the result of interaction of the second signal system with the first.

§ 64. Types of Action

The activity of an adult consists not of individual independent movements, but of more or less complex actions, which are carried out through a number of movements.

Actions are called separate acts of behaviour, which are based on certain motives and are aimed at a certain purpose. Therefore, it is impossible to talk about completely involuntary actions. A person can make involuntary movements - waving his hands while walking, making during the conversation “machine” movements with his hands, involuntarily smiling, listening to a cheerful story, and involuntarily frowning eyebrows, hearing the annoying news, but these movements in themselves do not constitute action, as they are not aimed at any purpose. Some of them can become “action” but only when they become arbitrary. A smile becomes an “action” when a person consciously wants to show his attitude to any news with this smile.

Every action of a person is arbitrary, but the degree of this arbitrariness can be different.

We can distinguish, on the one hand, actions that are quite conscious, reasonable and, on the other hand, impulsive actions characterized by a relatively small degree of conscious control. Impulsive actions include actions committed under the influence of strong feelings, most often affect.

An example of impulsive action is the behaviour of Pavel Korchagin in a collision with Filo (“How steel tempered”). At the party court, Korchagin described his act as follows: “Everything that is at stake here happened because I could

not resist... There was an accident, and before I knew it, Filo got hit in the skull.”

It would be wrong to think that in a state of affect a person is not at all aware of what he is doing, and that therefore impulsive actions are completely devoid of consciousness (see above q 58). The peculiarity of impulsive actions lies not in their complete unconsciousness, but only in the fact that, first, there is no clear consciousness of the purpose of action and, secondly, it is difficult to consciously control their actions.

In the examples given, the actors could not explain exactly what their goals were. You can tell why, but you can't say why they did it. It is equally clear that they did not have sufficient control over their behaviour at the time of these acts, i.e. they did not have enough self-control. It is necessary, however, to recall what we have already said when we study the question of affectations: from the fact that under the influence of affect a person sometimes loses power over himself, it is impossible to conclude that in such a state he and can not own himself. An example of the impostor's behaviour in the scene at the fountain very clearly shows the ability to regain temporarily lost under the influence of an affective flash power over himself.

Impulsive actions are rash actions, and therefore they are opposed to deliberate, reasonable actions.

Since an adult does not have actions completely involuntary, so much in each action to some extent there is a will, and the higher the arbitrariness, i.e. conscious purposefulness of action, the stronger the manifestation of will.

It should be taken into account that strong-willed actions are not spontaneous, they are caused by the influence of the conditions in which a person grew and developed. I.M. Sechenov and I.P. Pavlov constantly pointed out that the strong-willed act has its causal explanation. Vole-by-action is the result of education and self-education; they reflect the living conditions and demands of society.

§ 65. The Concept of Will

Will is the side of the psyche, which manifests itself in conscious and purposeful actions. Vole-action in its own sense is an action that is associated with overcoming internal or external obstacles.

And in everyday life, manifestations of will are spoken only when it is necessary to overcome obstacles. Let's take two simple cases:

1) I need to write a note; I look for a pencil on the table with my eyes, I find it, I reach out and take it.

2) I have a free evening and I want to go to the theatre; I go to the ticket office and buy a ticket.

In both of these cases, the actions are quite conscious and focused, but usually no one sees such actions as a manifestation of will, and precisely because they are not related to overcoming any obstacles. In fact, in these actions there is a will, but the requirements for it here are so insignificant that a healthy person does not even notice them. However, in some neuropsychias, when due to deep disorders of the strong-willed sphere develops a state of "aboulia", i.e. painful indifference, a person may "not have

the will” even to take from the table the desired object, and even more so in order to go somewhere.

Internal obstacles to the commission of action arise in cases where there is a conflict, a clash of contradictory motives: you want to sleep, but you need to get out of bed, so as not to be late; I want to continue a fun and exciting conversation, but you realize that you have to go and sit down at work. Will manifests itself in the ability to force yourself to do what you recognize fit, to suppress those desires and desires that prevent it. The will is first of all power over oneself, management of one’s actions, conscious regulation of one’s behaviour.

On the other hand, the will is manifested in overcoming external obstacles: difficulties of work, all sorts of obstacles, resistance of other people, etc.

A remarkable example of a strong-willed Soviet man is described in “The Tale of a Real Man” by B. Field. Meresiev with broken legs after the crash with the plane moves to his, despite unbearable pain in his legs. The desire to reach its own overcomes everything. “All his will, all his obscure thoughts, as in focus, were concentrated at one small point: to crawl, to move, to move forward at all costs.” “He rose into the snowdrift, tightly clutched his teeth, and went forward, setting small targets in front of him, focusing on them, from pine to pine, from hemp to stump, from snowdrift to snowdrift.”

After the amputation of both legs, he again sets a goal, seemingly impossible. “Even in the hospital he gave his word to return to aviation. He set a goal and stubbornly sought it through grief, pain, fatigue and disappointment.” And he achieves his goal, this real Soviet man.

Will is closely connected with other aspects of mental life. The mighty engine of the will are the senses; a man, indifferent to everything, cannot be a man of great will. But at the same time, the will assumes the awareness of their feelings, their appreciation and the power over them. "Slaves of their passions" are always unwitting people. The "mind of passion to subjugate" is a necessary condition for a strong will.

The greatest feats of will, the samples of which showed the heroes of the Great Patriotic War, are characterized from the psychological side by a combination of the strongest feeling - selfless love for the homeland, fiery hatred of the enemy, mighty combat arousal - with extreme self-control, endurance, strict calculation. The labour exploits of the Heroes of Socialist Labour are also caused by a life of passionate love for the homeland and at the same time the businesslike wisdom of the true specialists of their business.

From all this it is clear how deep the connection of the will with thinking is. A willful action is a deliberate action. Before forcing himself to do the right thing, a person must understand, realize, think about what to do in this case. Before overcoming the external obstacles that stand in the way of the goal, we need to find the best ways and means to do so, we need to think about the idea of action and make a plan for it.

§ 66. The Analysis of Volitional Action

The willful action, as we know, involves a tentative awareness of the purpose of action and the means leading to that goal. This means that a person, before starting to act, outlines mentally what and how he will act - before acting in fact, he acts mentally.

On the other hand, a willful action is an action in difficult conditions, an action associated with overcoming any obstacles. It follows that the “thought action” preceding the actual action cannot be limited to mere consciousness of the purpose and means to achieve it, but involves a complex process of discussing various possibilities: to act or to refrain from action, in what direction to act, in what path and in what ways to act. This process ends with a decision being made.

The decision is followed by a shift from “mental action” to actual, i.e. enforcement of this decision.

Thus, we can identify two main stages of willful action: 1) the preparatory stage, the “thought action” that ends with the decision, and the final stage, the “actual action” - that is in the execution of the decision.

In cases where action must be taken immediately, the decision and execution directly follow each other, the decision is directly implemented.

An example of this type of willful action is an episode in N. Ostrovsky’s novel “How Steel Tempered”, when Korchagin, a battalion soldier, on manoeuvres of territorial units receives from the chief of staff of the regiment orders to get off the horse and participate in manoeuvres on foot. The order is given in a very sharp form with a touch of mockery of Korchagin’s disability.

“Korchagina seemed to be whipped with a whip. He rushed his horse with his way...” For a few minutes, he “struggled with two feelings: resentment and endurance.” The second one won: “Korchagin was a soldier of the battalion, this battalion was behind him. What example of discipline he

would show him by his behaviour!.." The decision to unquestioningly obey the order, despite the injustice and sharpness of it, immediately goes into execution: "He freed his legs from the aspiring, tears from the horse, and, overcoming acute pain in the joints, went to the right flank."

In other cases, the decision is not about individual and immediate action, but about the direction and nature of activities that sometimes stretch for a very long time and consist of many individual actions, not behaviours at the moment, but programs of future behaviour, not of what to do now, but of what to do in certain situations in the future. A person can decide to graduate from school as an excellent student, not to smoke, to hold himself in a certain way with one or another person, etc.

An example of a solution of this type may be another episode from the same book by N. Ostrovsky, when Korchagin, having fully understood the terrible course of his illness, began to ask: "What should he do with himself now, after the defeat, when there is no hope of returning to service?.. What to do?.." Two directions of feelings and thoughts struggle in it. One leads to suicide: "Why live when he has already lost the most precious - the ability to fight?.. He was able to live well, know how to finish in time." The other leads to finding an opportunity to make your life useful despite the disease; suicide is "the most cowardly and easy way out of the situation... Be able to live when life becomes unbearable. Make it useful."

During the long hours spent in the old park of the seaside town, Korchagin, in his words, "arranged a meeting of the "Politburo" and made a huge decision" - to break out of the iron ring and return to service with a new weapon in his hands.

In such cases, the decision-making does not directly lead to execution, but to the appearance of an intention, which is an internal mood to act in the future in a certain direction.

But intentions are not matters on their own. They are only needed as preparation for action. The person armed with the best intentions, but not realizing them in the activity, is a man of weak, not strong will. Will manifests itself in decision-making, but much more manifests itself in the execution of these decisions. Many people make a decision and are armed with the intention to quit smoking, but will find a strong will in this matter only those who will be able to implement this decision.

The decision and intention are necessary links of willful action, but the most important, central point of it is the execution of the decision.

The first preparatory stage of willful action, which ends with a decision, may be different. In the presence of internal obstacles, the initial stage of willful action sometimes takes on the nature of the struggle of motives.

Internal obstacles, as we know, are expressed in a conflict of contradictory motives. This conflict is deployed in the struggle of motives, which includes weighing, discussing, assessing conflicting desires, aspirations, feelings. In both of the episodes in Pavel Korchagin's life, we see this kind of struggle of motives: in the first case, the struggle between feelings of resentment and endurance, discipline, in the second case - between despair and craving for "paper heroism" on the one hand, and the desire to fight, iron perseverance and a sense of duty of the genuine Bolshevik - on the other.

When fighting motives, it's about the goal and direction of the action, not the way it's done. The decision is about what to do, not how to do it. Before Korchagin in the first episode is the question of whether to execute unquestioningly unfair order, and not about how to execute it.

The struggle of motives in a truly strong-willed action is a struggle between the consciousness of duty, the sense of duty and any contrary to duty motives.

In the episode, Korchagin has a struggle between a sense of resentment, ready to go into an affective flash ("Broke the horse with a retribution.."), and the consciousness that he must show his battalion an example of discipline. The essence of Korchagin's inner struggle during his long reflections in the old park boils down to the question: what should he do? What does the Bolshevik's duty require of him?

In other cases, in the preparatory stage of willful action, the first choice of the method of action is put first. This is most often the case when the difficulty lies in overcoming external rather than internal obstacles: there is no conflict of motives, the purpose of the action is clear, but it is not clear how to achieve this goal, how to overcome the difficulties standing on the way to it. In these cases, you need to make a choice between different ways of doing things, you need, in other words, to draw up an action plan. The solution here should not be a question of purpose, but of the means and ways to achieve it.

Let's take again an example from Ostrovsky's book *How Steel Tempered*. Pavel Korchagin meets on the highway Petlurovets, leading the arrested Shchuhraya. "Korchagin's heart was stabbed with terrible force Of thought ran one

after another, they could not be captured and formalized. The deadline for a decision was too short. One thing was clear: Juhrai was dead. And looking at the approach, Paul got lost in the swarm of feelings that gripped him. "What to do?" at the last minute remembered: in the pocket of the revolver. As soon as they pass by, shoot in the back with this one, with a rifle, and then Fedor is free. And from the instant decision the dance of thoughts ceased." He's levelled with Juhray, there's a moment when we have to act. "But the head drilled a disturbing thought: "If I shoot him and miss, the bullet can hit The Yukhraya..." How was it possible to think when petlurovets were already there? And it happened so: Paul was equal to the red-haired escort; Korchagin suddenly rushed towards him and, grasping the rifle, bent to the ground in a sharp motion."

There is no question of any struggle of motives here. The huge tension of all mental forces is directed in one direction: to find a way of action, a plan of action. Despite the very short term, in Paul's soul unfolds a complex series of processes. First, confusion, bewilderment, "swarm" of successive feelings and thoughts. Then the first decision arises instantly, and the "dance of thoughts" stops. But when the time is right to act, when it would seem that there is no time to think, it turns out the unsatisfactory of this decision, and literally in the last moments it is replaced by a new one: not to shoot, but to snatch the rifle from the hands of the escort. The appearance of this last decision is so closely merged in time with the execution that Korchagin himself his actions seem "unexpected". In fact, even in this case, the "actual action" was preceded by a "mental" execution preceded by a decision, although they were separated from each other by only a small fraction of a second.

Choosing the mode of action requires the work of thought and sometimes very difficult work (Korchagin “thoughts ran one after another,” “the dance of thoughts ceased,” “the head drilled ... “How could one think?..” etc.). However, the drawing up of a plan that is part of a willful action is not only a thought process, but also a willful process, since the plan is not drawn up as a “plan at all”, not as a plan of action, theoretically possible in this situation, but as a mental pre-emption of real action, as an obligation for execution. Each of us can mentally take Korchagin’s place to solve the problem for him, looking for the best way of action in his position. But our mental activity in this case will be only thoughtative, while he had it at the same time and thought and strong-willed.

When overcoming both internal and external obstacles, the will is manifested in the ability to force oneself to do what a sense of duty requires.

Developed sense of duty—the most valuable quality of the person and the most important condition for the formation of morally mannered will. Growing up in the strongest motive of human actions, the sense of duty leads to the commission of feats, makes a person a hero.

On the day of the anniversary of the Red Army, on February 23, 1943, the Komsomol assembly of the battalion of the 254th Guards Rifle Regiment took place at the halt. Discussed how best to fulfill the military order - to take the village of Chernushka.

At the meeting, Komsomolets Sasha Matrosov - a young blond guy with a machine gun on his chest. Looking around his comrades, he said solemnly and imperiously:

"We will follow the order! I'm going to fight the Germans while my hands hold my arms while my heart beats. I will fight for our land, despising death!

All night long the battalion went off-road, through the forest. At the stops Sasha Matrosov repeatedly said this night to his friends:

"Well, bro, remember our persuasion: to fight, so to fight. You have to die, and do it.

The approaches to the village of Chernushka were blocked by three enemy bunkers; two flanks managed to block, but the central bunker was fiercely lit and prevented from crossing the clearing separating the battalion position from the village. Groups of machine-gunners sent to eliminate the bunker died as soon as they crawled out into the clearing. It was impossible to break through to the village without stopping, at least temporarily, the fire of the enemy machine gun.

Sasha Matrosov secretly crawled from the side to the bunker and gave a turn on the embrasure. His bullets hit the embrasure; machine gun fell silent, but after a few seconds he came to life again. Then the sailors jumped to his feet, rushed forward and closed the embrasure with his body. The fire stopped instantly. The warriors rushed forward, and the bunker was taken.

So Komsomolets Sasha Matrosov kept his word and really to the end did his duty. Determined to sacrifice his life, he earned a high right to immortality. Guards Private Hero of the Soviet Union Alexander Matrosov is forever enrolled in the lists of the company with which he went to battle under Chernushka (see. "Truth" of September 12, 1943).

§ 67. Human Volitions

Characterizing the willful qualities of the person, we will highlight, firstly, those that relate to the motivation of the willful action, secondly, those that appear in the decision-making, and, thirdly, those that are associated with the execution of the decision.

1. Conscious decisions and actions.

A person who can be called conscious in his actions does so, not otherwise because he is convinced of the correctness and importance of his goals. It is guided by conscious desires that reflect more or less strong views and beliefs. He unquestioningly obeys discipline because he understands the necessity of this subordination.

Genuine consciousness, which is a sign of developed will, is opposed to such properties as suggestion and negativity, which speak of the shortcomings of the will.

Suggestion is the slight susceptibility of other people's influences.

The conscious person follows other people's advice, when he is sure of their correctness, understands that they correspond to his views and beliefs. An indoctrinated person succumbs to any advice; with some effort, he can be persuaded to do an act that is in no way consistent with his views or with his intentions.

The external opposite of suggestion forms negativity, i.e. an unmotivated desire to act against others. Negativism is expressed in the desire to do whatever it is in its own way

and in the internal opposition to obey any advice or guidance coming from another person.

Negativism, as well as suggestibility, is a sign of weakness, not willpower. In both cases, the person is deprived of genuine consciousness of actions and is guided not by an assessment of the merits of the advice and instructions he receives, but by a blind tendency to obey them - if suggestive - or contradict them - with negativity.

2. Decisiveness, under which of course the ability to make sustainable decisions in a timely manner.

Decisiveness should not be mixed with a tendency to "quickly decide." Rushing to make a decision without sufficient evidence when circumstances do not require immediate action is a sign of weakness, not willpower. Such haste is often observed in people indecisive; for them to make a decision - an excruciating operation, from which they seek to get rid of perhaps rather. Genuine determination involves the ability to delay a decision, if circumstances permit, until it can be rendered with the greatest knowledge and certainty.

But, on the other hand, determination involves the ability to make a decision immediately when it is impossible to wait. It requires risk when you need to take risks. "The pilot," Stalin said, "is a concentrated will, a character, a risk-taking ability."

Being at the heart of its strong-willed quality, determination is closely related to certain qualities of the mind: it implies greater criticalness and at the same time the courage of thought.

Decisive we will name a person who at the right moment is able to eliminate unnecessary doubts and fluctuations. But we will not name a determined person who is incapable of experiencing any doubts due to his limited horizons and lack of thoughtfulness. It is not possible to say about such a person that he acts decisively, but it can be said that he acts recklessly.

The consequence of deliberateness and validity of decisions is the sustainability of them. The decisive person is firm in his decisions, while the indecisive person constantly hesitates - both before and after the decision. Fear of any final step causes the indecisive person to first postpone the decision, and then endlessly revise and cancel it.

3. Owning yourself. This side of the will manifests itself in two directions.

First, in the ability to force yourself to fulfill the decision, the struggles for this counteracting motives: fear, laziness, shyness, etc. In life it is this willful quality is most often called willpower. Without it, not only outstanding feats of courage are impossible, but also the most common manifestations of conscientiousness and diligence.

Secondly, self-possession is manifested in the ability to contain unwanted detections of feelings and affect and to prevent impulsive actions. In this sense, they talk about the endurance and self-control of man.

A remarkable example of both willpower and endurance represents the life of N. Ostrovsky. Blinded and deprived of the ability to move, he heroically forced himself to master a new weapon—an artistic word, not only suppressing all

manifestations of despair, but even “banning” himself, in his own expression, such “simple human feelings” as sadness, “having the right to life for almost everyone, but not for him.” To imagine what a feat of will was the creation of his two novels, it is enough to take into account one thing: “Everything he wrote, he had to remember word for word”; “in the process, he had to read entire pages, sometimes even chapters, from memory.” And such work should have been done not by an experienced professional writer, but by a person who was first trying strength in this field and also experiencing continuous agonizing suffering.

4. Energy and perseverance in overcoming external obstacles that stand in the way of the goal.

These qualities are not always combined in one person. Some people are extremely energetic in their way, but they will soon be “exhaled”; they can only be on a short-term onslaught; they lack perseverance in overcoming any long series of difficulties. In contrast, people of genuine will are capable of a long and unrelenting strain of energy; the strength of their willful onslaught not only continues unabated, but even increases when faced with difficulties and obstacles.

Perseverance is manifested in the implementation of the plan. In any case, there are two sides to distinguish between the two sides:

1) The wording of a goal or task: what exactly should be accomplished? how much should be done? by what time should the work be completed? This is the quantitative side of the plan.

2) Mapping the ways, paths and means to which the task should be solved: how exactly, what methods and in what sequence should the goal be implemented? This is a quality side of the plan.

Perseverance implies the continued implementation of the quantitative side of the plan, with the most flexible attitude to the way of execution. The goal must be achieved at all costs, but the means outlined at the outset can and should change depending on the changing situation. The intended mode of action should not constrain a person. It is performed as long as it is the best possible, but is replaced by another as soon as it is found that this latter leads to the goal better.

§ 68. Raising the Will

The will is expressed in overcoming difficulties, and a person can overcome difficulties only if he knows why he is doing it. Therefore, the first and decisive condition for the education of the will is the formation of a worldview, the development of public feelings and on this basis - the education of a sense of duty.

The second condition of nurturing the will is mastering the ability to want. As long as man's aspirations are shaped like sluggish, vague and inactive desires, there can be no question of developing a strong will. In the notebook of G. I. Kotovsky, a civil war hero and combat commander of the red cavalry, there is a record: "Wanting means to be able." For people of great will to which Kotovsky belonged, the desire is a mighty force for which there are no insurmountable obstacles. But this can only be a desire arising from the basic attitudes of life, and not from fleeting impressions and changing moods. This is the "passionate

Bolshevik desire” that Comrade Stalin spoke of, emphasizing his crucial importance for success (a speech at a meeting of businessmen in 1931).

The third condition of nurturing the will is not to make decisions of the unenforceable and not to arm yourself with intentions that will not be implemented. No one makes decisions so often and has as many good intentions as weak-willed people. A person who seeks to cultivate a strong will in himself, must treat each of his decisions and intentions as a responsible person, remembering that the failure to implement the decision corrupts the will.

The fourth condition of instilling will is the formation of the habit to evaluate their actions, to be aware of their consequences, to look at them from the outside. Without developing a critical attitude to yourself and to his actions, it is impossible to cultivate a strong will. Great self-demand is one of the characteristic features of a person’s strong will.

Finally, the last condition of nurturing the will is constant self-training in overcoming internal and external obstacles, a constant exercise of willpower. That peculiar state of internal tension and activity, which is called “willful force”, is a characteristic feature of any willful action. Where no effort is required, there is no reason to talk about a serious willful task. But the “ability to force willful effort” and, consequently, the ability to overcome obstacles develop as a result of practice. “A small victory over himself,” Gorky wrote. “Makes a person much stronger.” The will is formed in action. Only he is able to show strong will in big things, who long exercise hardened her on hundreds of small things.

The possibility of a person’s upbringing of his will is limitless. Each student should consciously work on nurturing

his will. Courage and perseverance in work, discipline, high sense of duty—these are the requirements that our country imposes on young people.

Soviet schoolchildren bring up their will not in the order of individual self-improvement, but as members of a collective striving together with the entire Soviet people for a common great goal.

Issues to Repeat

1. What is the difference between motive and purpose?
2. What is the difference between attraction and desire?
3. What are the signs of arbitrary movements from involuntary movements?
4. Give a characterization of impulsive actions.
5. What is called will?
6. What is the connection of the will with feelings and with thinking?
7. What is the difference between “solution” and “intention.”
8. Under what condition does the struggle of motives become a truly willful process?
When does a willful action require a plan?
10. Give a characteristic of a person’s strong-willed qualities.
11. List the most important conditions for the upbringing of the will.

CHAPTER XI. PSYCHOLOGICAL ANALYSIS OF ACTIVITIES

§ 69. Tasks and Motives of Activity

All activities—labour, learning, play—are aimed at specific goals or tasks: for example, working out a set norm, increasing daily output to three or four norms, learning to read light books in English without a dictionary, passing all exams for the top five, and winning your team superiority in sports, etc.

The reason for setting these or other goals, as we have already indicated (see p. 182), is certain motives. However, in the course of an activity, the relationship between motives and goals or tasks can change: the very fulfillment of a task can become a motive for activity. Certain motives prompted the tenth grader to set himself the task of graduating from school with a medal. In the future, the desire to accomplish this task itself becomes an incentive force, the motive of its activity. This always happens when a person really seeks to fulfill the tasks facing him, really lives his activity, and is not an indifferent and indifferent performer of it.

In any activity, a person is guided not by any one task, but by a whole system of tasks subordinate to each other. The student is engaged in English. At the moment, he faces the immediate, immediate task - to understand the meaning of a difficult sentence. According to her, there is a more general task - to translate a whole

passage, which must be prepared for tomorrow's lesson. This task through a series of intermediate tasks is part of the big task—to master the English languages, which in turn is a condition for solving an even wider task—to develop a full-fledged specialist in a certain field. According to this last task, it is subordinate to that central, highest task - serving the Soviet motherland and the struggle for communism.

A person's attitude to activity, and consequently, how he performs it, is largely determined by how far he sees the prospect of his tasks. If the motives of human activity are determined not only by the immediate, but also by more distant, larger, principled tasks, we are talking about the distant motivation of activity; in relation to a person who is prompted to work only by immediate tasks that are not included in the system of broad fundamental tasks, we are talking about short motivation. The latter creates an attitude towards activities that is characterized by a lack of perspective, narrow horizons and insufficient integrity.

Only distant motivation gives a person the desire and strength to deal with difficulties and overcome them, because it makes you see in a separate link of activity the necessary stage to achieve the ultimate goal, the stage that needs to be overcome at all costs, since otherwise the achievement of this goal is impossible. If a person does not see prospects beyond the next stage, in the name of what will he overcome the difficulties associated with this stage?

The range of motivation also affects a person's attitude to success, to victories and achievements. For a person of short motivation, success in resolving a particular

problem is experienced as ultimate success, as the end of the matter, and therefore demobilizes him, causing a feeling of calmness. With distant motivation, success in solving one problem is experienced only as a climb by one step, beyond which the prospect of the next steps immediately opens; a sense of success therefore mobilizes a person, turning into a desire for new achievements, for which you need to work and fight. This is how Comrade Stalin describes Lenin's attitude to defeats and victories: "I met Lenin for the second time in 1906 at the Stockholm Congress of our party. It is known that at this congress the Bolsheviks remained in the minority and were defeated. I first saw then Lenin in the role of the vanquished. He was not one iota like those leaders who whimper and lose heart after defeat. On the contrary, the defeat turned Lenin into a bunch of energy, inspiring his supporters for new battles, for future victory."

"At the next congress in 1907 in London, the Bolsheviks were victorious. I first saw then Lenin as a winner. Usually victory dizzy other leaders, making them arrogant and puffy. Most often in such cases, victory begins to triumph, rest on its laurels. But Lenin was not one iota like such leaders. On the contrary, it was after the victory that he became especially vigilant and wary."

Human activity always has one or another social significance. Even if a person sets himself only personal goals, his activity with his objective results will inevitably have any - positive or negative - value for society. Human consciousness is characterized primarily by the extent to which he is able to recognize this social significance of his activities. The level, or the height of motivation, of human activity is characterized by the extent to which

social tasks (well-being of the motherland, class interests, tasks facing the production or training team) become the personal goals of a person, the motives of his activity. The greater the place in the motives that motivate a person, is the consciousness of public duty, the higher his level of motivation.

The main activity of man is social labour. "The spiritual image of today's Soviet people," said Comrade Molotov in a report on the thirtieth anniversary of the Great October Socialist Revolution, "is visible, first of all, in a conscious attitude to his work, as a matter of public importance and as a holy duty to the Soviet state."

A great influence on a person's activity is exerted by the assessment that he receives from other people, and an essential manifestation of consciousness is the ability to distinguish whose assessment should be guided by. Despising the opinion of "high society", that "cold crowd" for which the inner meaning of his work was unavailable, Pushkin highly valued a truly popular assessment:

*Hearing about me will pass through the whole of Great Russia,
And everyone who speaks her language will call me...
And for a long time I will be so kind to the people...
("Monument").*

The famous tractor driver Pasha Angelina writes in her autobiography: "This is a good feeling when you know that everyone needs your work, that people wish you success!"

The assessment of those people who embody a public conscience, the voice of the people, is crucial for human activity, directing it and giving the highest award to human achievements.

The great Russian scientist And V. Michurin, receiving on the day of his 80th birthday a comrade Stalin's telegram containing a high assessment of his work, wrote in his reply: "The telegram on your behalf was the highest award for me for all 80 years of my life. She is more dear to me than any rewards. "

The mere thought of such an assessment can sometimes inspire a person to exploits. "The English truck driver John, on the battlefield in Spain, under the hurricane fire of the enemy, delivered water to the soldiers who were exhausted from thirst; mortally wounded, he said: "If Comrade Stalin had seen this, he would have patted me on the shoulder and said:" You behaved well, you are a wonderful comrade, John".

§ 70. Consciousness and Activity

In the previous chapter, we established that every human action is conscious, although the degree of this consciousness is different. This applies all the more to complex activities consisting of a series of actions. Human activity under normal conditions is a conscious activity.

However, it is equally inevitable that not all components of the activity, i.e., not all its constituent elements, are realized consciously. Any complex activity of any kind includes individual processes, movements, etc., which

proceed automatically, that is, without their full awareness. This is a necessary consequence of the feature of the brain, which is manifested in the phenomena of attention. As we know, the presence of a region with optimal excitability in the cerebral cortex is associated with inhibition of other parts of the cortex. This means that consciousness, heading towards a specific object or complex of objects, thereby inevitably distracts from other objects. Naturally, in the process of performing complex activities, consciousness can be directed only to individual components or sides of it.

Speaking about the awareness of certain acts of human activity, we must first of all keep in mind what consciousness is aimed at, what exactly is realized by man.

One of the heroes of “Dead Souls”, Petrushka’s servant Chichikov, had a great tendency to read books, and this reading had a peculiar character: “He didn’t care whether the hero in love was just a primer or a prayer book: - he read everything with equal attention; if they had turned up chemistry, he would not have refused it. He didn’t like what he was reading about, but rather the reading itself, or rather, the reading process itself, that some words always come out of letters, which sometimes the devil knows what it means. “

Reading Parsley is a typical example of “unconscious” reading, but this does not mean that it proceeds without the participation of consciousness. In this case, “unconsciousness” is expressed in the fact that consciousness is not aimed at what it should be directed

at—not at the content of what is read, but at the process of reading.

Conscious performance of an activity presupposes the fullest possible awareness of the content that it is aimed at, its tasks, expected results and possible consequences, and, finally, as we saw in the previous paragraph, its social significance. But this can only be if the largest possible number of components of the activity process itself is carried out automatically. Only those with readings can automatically fully focus on what they read, without requiring awareness. The better a person knows the technique of this activity, the less he pays attention to the very process of performing this activity. And this makes it possible for the pillars of consciousness to focus on the content and tasks of the activity, on finding the best ways and means of resolving these problems.

In other words: the better a person possesses the skills associated with this activity, the more creativity he can bring into its implementation. In order to creatively perform music, one must have good playing skills on musical instruments; without this, the consciousness of the player will be entirely confined to the technique of performing movements, reading notes, etc. The writer's creativity is possible only if the writing skills are well mastered; otherwise all his attention and all his spiritual powers will be directed towards avoiding spelling, syntactic and stylistic errors.

Skill and creativity are the two most important aspects of any complex activity. The skill consists in the most perfect, easy and automatic execution of those constant stable operations that make up the technique of this

activity. Creativity is manifested in taking into account the uniqueness of these conditions, in finding methods of action that meet these conditions, in comprehending new tasks that have not been encountered before, and in finding ways to solve them, finally, in any manifestation of initiative and overcoming patterns.

In the proper sense, we call creative activity an activity that produces new, original products of high social value. Creativity is shown by scientists, artists, inventors, Stakhanovites of industry and agriculture, who find a way to increase labour productivity. "We think every day," said A. Kh. Busygin, initiator of the Stakhanov movement in the machine-building industry, "how to organize a better workplace, every day we come up with something new and move forward."

In other activities, which are not usually called creative, the creative moment, however, can also be represented quite clearly. Even a student who manages to find a solution to a mathematical problem of a type unfamiliar to him shows creativity from a psychological point of view, although the technique he uses is not new in mathematics.

And in all cases, the condition for the manifestation of creativity is the possession of appropriate skills, which enables the consciousness to fully concentrate on the main, decisive points on which the success of the activity depends.

§ 71. Skills

From what was said in the previous paragraph, it follows that skills are understood to mean such components of complex activity—that is, separate systems of movements, processes that are part of the activity - that proceed automatically, that is, without the participation of consciousness. However, unlike those movements that occur automatically from the very beginning, such as, for example, unconditioned reflexes, skills become automatic as a result of a more or less prolonged exercise. Therefore, they should be called automated, that is, “turned into automatic”, and not just “automatic” components of activity.

Skills are automated components of conscious activity that are developed in the process of doing it.

You should never forget that when developing skills, it is not the activity as a whole that is automated, but only its individual components. Reading, writing, shooting, playing the piano, etc., always remain conscious activity, only the operations by which this activity is carried out are automated, only the ways of its implementation. Every skill is a system of conditioned reflex connections; in particular, motor skill is a system of temporary connections in the motor analyser. In the formation and restructuring of skills all the laws of education, changes and inhibition of conditioned reflexes are valid.

1) Formation of Skills

We indicate some of the most important points characterizing the formation of skills.

1. Combining a number of private actions in one holistic action. According to some experts in flight training, during a training flight along a rectangular route (“in a circle”), lasting 5-6 minutes, the pilot must perform about 200 actions. It is easy to understand that in such a short period it is impossible to successfully complete 200 independent conscious actions. One of the most important moments in the formation of flight skills is the combination of individual groups of such initially independent actions into one holistic action, subordinate to one task. What used to be a separate conscious action is now becoming an automated operation that is part of a new complex action.

Thus, as you master the skills a person begins to work more and more “large units.” Learning to read, the student reads first in letters, then in syllables and, finally, in whole words. In the first steps of teaching writing, the image of each element of the letter (stick, circle, etc.) is in the mind of the student as a special task; the next step is the holistic spelling of individual letters; with full knowledge of writing skills, writing a whole word, and sometimes a whole phrase, becomes a single action, which is carried out by a smooth and continuous movement.

2. Elimination of excessive movements and tension. A characteristic sign of the inept performance of any activity is a large number of unnecessary movements. A child who begins to write, in most cases, cannot produce movement only with his hand; he “helps” himself with his tongue, face muscles, body movements, and sometimes legs. As you master the writing technique, these excessive movements are eliminated. Another

manifestation of the lack of skill is the tension accompanying the first attempts to perform an unusual action. When an inept person (especially if he is not at all accustomed to delicate manual work) tries to put a thread into a needle, he can observe such tension in the muscles of his whole body that the energy consumption caused by him is no less than during hard physical work.

The loss of unnecessary movements is the result of differentiation of movements, which are not supported by a successful result, are gradually slowed down, and the movements leading to the desired result are more and more fixed during repetitions.

3. The weakening of the role of visual and the increasing role of motor control. An inept person, trying to work on a typewriter, searches with his eyes for each letter on the keyboard; looking away from the keyboard, he cannot type a single word. In contrast, an experienced typist almost does not look at the keyboard, and typists who have passed the correct school can work completely blind. This happens because their movements are controlled not by visual, but by motor sensations. The same holds true for most motor skills; as a person masters the skill, his eyes are less and less riveted to movements, because the ability to finely control movements with the help of motor sensations is developed.

One of the main signs of the automation of movements is that each movement is directly caused by a motor sensation from the previous one.

4. The ability to carry out activities in various ways, or by methods. Having mastered skills, a person develops some permanent, stable, entrenched ways of performing certain actions. This is a prerequisite for automating these methods. Running differently each time, of course, they could not be executed automatically.

However, complete immutability in the methods of performing this activity is not desirable. Genuine skill requires a flexible change in the way an activity is performed when changing tasks and the conditions in which it occurs. A good master differs from a person who only knows how to carry out this business in that he owns many techniques and can use any of them depending on the given circumstances. And this means that he owns not one, but many skills of this activity and, in addition, owns skills to use them flexibly.

Let's take the most elementary example. Every person has walking skills, but not every person has these skills are quite diverse and their use is flexible enough. Some people cause a lot of trouble to others because they do not know how to change, when necessary, a heavy walk to a light and silent, and in the patient's room they walk in such a step that is appropriate when passing a ceremonial march. Many people quickly get tired with long crossings, because they go in such a walk that is advisable only on short walks. Mastering walking less, which is an important task of physical training, involves the development of sufficient flexibility in the use of walking methods.

Another example is reading skills. One of the conditions for good reading mastery is the ability to read quickly; you

need to be able to, when necessary, read as quickly as possible. However, there are people who cannot read otherwise than very quickly. Possessing the skill of fast reading, they do not possess the skill of slow reading, and this skill is no less important. For example, reading fiction should generally be a slow reading; otherwise, the work of the recreating imagination cannot develop without which, as we have seen, a full-fledged perception of a work of art is impossible. This circumstance is no less harmful when reading scientific literature. To be able to read means to be able to read in different ways, depending on what you are reading and why.

The possibility of carrying out the same activity in different ways, or by methods, implies one indispensable condition. Developing automated ways of performing actions, a person should not lose opportunities at any time when it is needed, be aware of these methods; he must maintain the possibility of conscious control over them.

From this it is clear what great importance in the formation of a skill the second signalling system has in its interaction with the first. The second signal system has a regulatory effect on the operation of the first signal system. The use of signals of the second signalling system (verbal instructions, directions) can lead to the unification of movements accumulated in past experience, and thereby makes it possible to solve a new problem in changing conditions; verbal signals can also achieve the desired inhibition of activity. The formation of a skill with the participation of the second signalling system, that is, the use of the work of consciousness, is therefore of paramount importance. Mastery involves the

ability to consciously use automated operations and, when necessary, to consciously control them.

2) Exercise

Skills are formed during the exercise, i.e., the repeated implementation of this activity in order to improve the way it is performed. In order to acquire shooting skills, one has to practice shooting more or less continuously; to acquire swimming skills, one must swim.

However, not every repetition of the same activity can be called an exercise. People with poor handwriting write their whole lives - and some of them write a lot - but their handwriting does not improve on this; there is a constant repetition, but there is no exercise.

We indicate the two most essential conditions without which the repeated fulfillment of an activity cannot become a genuine exercise.

1. The student needs to have the clearest possible knowledge of what he must do, what he must achieve.

To obtain such knowledge, in some cases, theoretical acquaintance with this activity and analysis of the methods by which it is carried out can be of great benefit (teacher's explanations). Even more important is the direct observation of how this activity is performed by a good master (teacher's show).

But both this and the other methods can bring real benefit only if the student, when trying to perform this action

himself, tries to clearly keep the pattern shown and explained to him in consciousness.

2. The student must know the result of each individual exercise. After each repeated execution of this action, he must be aware of what he achieved, what are the shortcomings of his performance, what mistakes he made, and the next repetition should be aimed at eliminating these shortcomings and errors. Special experiments show that if the student does not know his results, improvement does not occur even with an infinitely large number of repetitions.

The conditioned-reflex nature of skills is clearly reflected in this: the need for reinforcements to form temporary connections. It was noted above that the development of motor skill is a differentiation process based on the inhibition of non-reinforced movements, on the one hand, and the strengthening of reinforced conditional connections in the motor analyser, on the other. At the same time, the role of the second signalling system is great: verbal indications of an error or indications of correctness act as those inhibitory and reinforcing stimuli that replace immediate (unconditional) stimuli.

Of great importance in this regard are the instructions of the teacher who evaluates the results achieved. However, you should get used to it as early as possible so that, based on the assessments of the teacher, you should be able to evaluate your own achievements and shortcomings yourself. Only he can achieve high mastery in any activity who learns to be his own critic. The ability to see your mistakes and

shortcomings is the most important condition for a successful exercise.

§ 72. Habits

Habits, like skills, are automated behaviours. They differ from skills in the following: a skill involves only the ability to perform certain operations automatically, that is, without special control of consciousness, the habit is associated with a tendency or need to perform certain automated acts.

We say that the child has the ability to wash his hands, if he knows how to complete this process quite deftly and automatically. But we will say that he developed the habit of washing his hands before eating, if he had a need to perform this act, so before sitting at the table, he almost automatically goes to the washbasin or water sink and doesn't have to specifically "remember" that you should wash your hands before eating.

Every skill is either useful, or at least indifferent; habits can be both good and bad. A skill, that is, skill, to whistle cannot be harmful in itself; on the contrary, in known life situations it can be very useful. The habit of whistling is certainly harmful, expressed in that a person begins to whistle involuntarily, it makes the owner of this habit unpleasant for others. At first glance, "innocent" habits, such as the habit of turning objects in the hands during a conversation or the habit of inserting some obsessive words into a speech ("say so", "means", "know", etc.), are actually if not harmful, then still unpleasant and uncomfortable traits. The first of these habits often leads to that when the owner appears, people who know him

begin to hastily hide from the tables all sorts of fragile and valuable objects. The second habit—to insert “parasite words” into speech—makes a person’s speech obsessively monotonous, and sometimes funny in the most inappropriate situations for this.

One of the heroes of Chekhov’s vaudeville “Proposal”, the landowner Chubukov, has the habit of inserting the words: “that’s it”, “and the like”, “and so on”, he expresses his joy at the arrival of the groom, who is married to his daughter: “My darling ... I’m so happy and so on ... That’s exactly what’s like that ... I’ll go, call Natasha and the like...” In a heated argument, he expresses his indignation with these phrases: “That’s it, young man, I’m not used to talking to me in that tone and stuff. Your grandfather drank heavily, and the youngest aunt, namely, Nastasya Mikhailovna, fled with the architect and so on ... “Fussing around a man who fainted, and trying to give him water, he exclaims:” Drink! .. No, don’t drink ... So he died and the like...”

The speech of people who are accustomed to using such “parasite words” can easily become comically meaningless.

On the other hand, good habits are very valuable in human life. They even more than skills liberate consciousness, providing automation not only of the technique for performing certain necessary acts in life, but also of the fact of their commission. It is useful to be able to maintain order in your workplace, but it is even more useful to turn the maintenance of this order into a habit, by virtue of which a person involuntarily - without thinking or caring about it - puts objects in a certain

place. It is necessary to have hygiene skills, that is, to be able to wash hands, brush teeth, but this is not enough; one must also have the appropriate habits, that is, develop a need for these actions to be developed, not be able to do without them, without experiencing an unpleasant feeling.

The remarkable Soviet teacher A. S. Makarenko wrote: "Our task is not only to cultivate the right, reasonable attitude to issues of behaviour, but also to cultivate the right habits, that is, such habits when we would act correctly not because sat down and thought, but because otherwise we cannot, because we are so used to it. "

From the foregoing, it is clear how important the development of good habits and the fight against bad, bad habits are of great importance.

Habits are a particularly striking example of the formation of a dynamic stereotype in the cerebral cortex. As we know, a well-fixed dynamic stereotype is characterized by the fact that the entire given sequence of conditioned reflexes can be reproduced only by one "trigger" signal. So the usual actions are carried out "by themselves", automatically, in the presence of a certain situation, which is a "trigger" signal for them.

One of the important differences between habits and skills is that skills are developed, as a rule, as a result of a conscious exercise, while habits very often arise unintentionally, without any conscious exercise. From the physiological point of view, this is explained by the fact that the formation of new temporary connections and systems of these connections, for example, dynamic

stereotypes, can occur not only in areas with optimal excitability, but also in parts of the hemispheres that have a certain degree of inhibition. On this kind of unconscious formation of new temporary connections, I.P. Pavlov wrote: "Let this act not be recognized then, but it happened, and under favourable conditions it can appear ready in the mind and be presented as having arisen is unknown how." Indeed, many habits appear to a person to have arisen in him "unknown how."

However, from the fact that habits can be formed unintentionally and without control of consciousness, it does not follow that they cannot be developed consciously. On the contrary, from the laws of higher nervous activity it follows that most quickly and firmly temporary connections are formed in areas with optimal excitability. Therefore, a person can always consciously and deliberately develop desirable habits and eradicate undesirable ones.

In order to consciously develop a desirable habit in oneself, one must steadily, never deviating from the decision made, act in a certain direction. Even more stringently, this rule must be respected in the eradication of unwanted habits. Only a person who is able to arm himself with irrevocable determination and consistently enforce it, without giving himself any indulgences, can learn to manage his habits and, therefore, manage his behaviour.

Conscious education of habits requires a strong will, but it is also the best means of educating the will.

§ 73. Creative Activity

In the proper sense, creative activity is called, as we have said, an activity that provides new, original products of high social value. Scientific research or invention, creation of an artwork, finding by a Stakhanovite worker a way to increase labour productivity or a collective farmer innovator of a new method of increasing productivity are typical examples of creative activity.

The processes of creativity can proceed very differently, depending on the content of the activity itself and on the individual characteristics of the personality and talent of the creator. However, you can specify some points that are characteristic of most cases of creative activity.

1) Inspiration

The first thing that always attracts attention when analysing the process of creativity is that state of special tension and uplift of all forces and abilities, of a person, which is indicated by the word inspiration. It is usually associated with the most important, decisive moments of creative activity - with the emergence of a concept and idea of a work, with finding a solution to a scientific problem, the principle of an invention or an idea of an operational plan, with the creation of central images of a work of art and its most penetrating and exciting moments.

The state of inspiration is characterized primarily by a full focus on the subject of creativity and a distraction from everything else.

One of the fellow countrymen M.A. Sholokhov, his fishing companion, told such a case. "Having abandoned fishing rods, Sholokhov crouched on the bank of the Don with a pipe in his teeth. He sat like that, not moving, looking at one point, for more than an hour. In vain did the companion speak to him - he did not receive an answer. The tense pose, the motionless gaze fixed on the water, the complete indifference to the surroundings frightened the comrade. He decided to follow every step Sholokhov. Finally, as if waking up from oblivion, Sholokhov began to collect gear and ran home. All day and all night he then sat at the table and wrote. "

The result of such an exceptional focus is the maximum aggravation of consciousness, its maximum clarity. "Inspiration, according to Pushkin, is the disposition of the soul to the liveliest acceptance of impressions and consideration of concepts, and, consequently, an explanation of these." This is the reason for the extraordinary productivity of the work in a state of inspiration.

But just because consciousness is entirely focused on the subject of creativity, the very process of creativity is very little understood in a state of inspiration. An artist usually cannot answer the question of how the most inspirational images were born in him, a scientist cannot say how the decisive idea of his discovery came to mind at the moment of "insight". In a state of inspiration, a person is less than ever able to monitor how his processes of thinking and imagination proceed. Therefore, in a state of inspiration, creative processes are little conscious. But this does not mean that creativity itself, in a state of inspiration, is sometimes

thought to be “unconscious”. Just the opposite. The unconsciousness of creative processes is a consequence of the maximum consciousness of creativity itself.

Inspiration is characterized not only by focusing on the subject of creativity, but also by emotional immersion in it, by a deep capture of those feelings that are excited by the subject of creativity.

We gave examples related here in § 42 and 54. Inspiration is a state of great emotional uplift, in which, however, an exceptional clarity of consciousness is maintained.

One of the most important psychological features of a truly productive creative process, most clearly manifested in a state of inspiration, is the joint work of imagination and thinking. Creativity is equally impossible without imagination, and without strict critical thought. According to the figurative expression of Leo Tolstoy, “a thinker, artist and critic must act simultaneously in a writer”.

2) Preparatory Stages of the Creative Process

It often happens that the main ideas that provide a solution to a scientific problem, or the central moments of a work of art, are created during relatively short periods of a great upsurge of inspiration. But this does not mean that the whole process of creativity is exhausted by such “flashes of inspiration”. Short periods of exceptional creative productivity always represent only the result of tremendous preliminary work. If the solution to a complicated scientific problem sometimes comes to the scientist’s head as if suddenly, without any effort, at the

most unexpected moment - on a walk, in a tram, in a theatre, in bed before falling asleep or after waking up, then in fact, of course, not this moment gives a decision; it is only the end point of a long process of creative work. Preliminary work serving as the preparation of a creative solution to a problem, consists in studying, thinking over this task and in collecting the necessary materials. Such preparation takes place not only in the work of a scientist, but also in the work of a writer, artist. From the materials that Tolstoy used when writing "War and Peace", he, in his own words, "formed a whole library".

However, the preparatory work is not limited to collecting materials specifically for the implementation of this plan. No less important is what can be called a collection of materials "for future use", which is the necessary moment in the creative activity of both a scientist and an artist. Every good specialist is constantly busy collecting evidence in the field of his specialty and pondering, comprehending them. Therefore, faced with a new problem, he already has a significant supply of preparatory material, facts and ideas. The ability to give quick solutions to new issues is the result of such general preparation in a certain field of creative activity.

In some specialties, this kind of "preparing oneself" for solving creative problems is even more important than lengthy preliminary work specifically on this problem. This is the case, for example, in the activities of a military leader, who is often deprived of the opportunity to study and ponder the problem that confronts him for a long time, and therefore must prepare himself and his mind in

advance in order to quickly give a creative solution to new, unexpected, unforeseen problems.

In the field of art, creative activity is completely impossible without “collecting material for the future.” Let us recall the words of Gorky that we quoted: “It is necessary to look very closely at one hundred, another priests, shopkeepers, workers, in order to approximately correctly write the portrait of one worker, priest, shopkeeper.” If a writer first began to “look closely” at a certain category of people only when he begins to work on a work, it would take him several years to create each individual image. The artist’s creative work presupposes a sufficiently large supply of life observations. The continuous replenishment of this stock is affected by that artist’s observation, which is a necessary condition for artistic creation.

Studying the qualities of the mind and the volitional qualities of a person, we noted that the true speed of thought, as well as genuine decisiveness, has nothing to do with haste. The negative value of haste should be remembered in the analysis of creative processes. Every major work should not only be carefully prepared, but also “worn out”. In the words of Alexei Nikolayevich Tolstoy, “impatience must be restrained.” Great figures of art and science were able to carry out their creative ideas for years, and as a result of this they created truly significant works.

Darwin’s work on the Origin of Species is very instructive from this point of view.

In 1837, for the first time, separate sketches of ideas related to the theory of evolution appeared in his notebook. There are reasons to think that in 1839 the general outlines of the theory were already outlined. However, only three years later, in 1842, Darwin wrote on paper the first, still relatively brief, outline of his theory. This “Essay of 1842” already contains all the main sections, all the basic ideas of the “Origin of Species,” but it is 12 times shorter than the famous book and has the character of draft, unformed sketches. Two years later, Darwin wrote four times more detailed and much more finished “Essay on 1844.” However, another 15 years passed before Darwin considered it possible to begin writing the book itself. These 15 years were entirely devoted to the further collection of materials and the finding of new evidence for the basic principles of the theory.

It is easy to understand that after such preparatory work the writing of the book could be done in a very short time: Darwin began to write *The Origin of Species* in July 1858, and in April 1859 the book began to be published.

3) Labour and Creativity

Creativity is, above all, great, constant and intense work. Only he can do, who knows how to work, who is capable of hard work, tireless, sometimes painstaking work, of “terrible work”, as L.N. Tolstoy called the creative work of the writer. Gorky argued that his success was primarily due to “the ability to work, love of work.”

The main condition for the productivity of creative activity is consistency in work and systematic, regular work.

The fact that the most important moments of creativity are related to the state of inspiration can, with a superficial approach to the question, create the impression that creative work is carried out mainly by short flashes and does not require diligent and regular work. This impression, however, is deeply mistaken. Firstly, as we have already seen, rich creative products at the moments of inspiration are created not only by these moments, but by all the long previous work. Secondly, the very state of inspiration is for the most part the result of systematic, regular work. You need to be able to force yourself to work regularly and in the absence of inspiration; only under this condition can one count on any frequent appearance of inspiration itself.

It is extremely instructive to get acquainted with the attitude to this issue of Tchaikovsky, which can serve as an example of a truly inspired artist. "You always need to work," he wrote, "and a true honest artist cannot sit idly by under the pretext that he is not located. Inspiration is such a guest who does not like to visit the lazy. She appears to those who call upon her. The whole secret is that I worked daily and carefully. In this regard, I have an iron will over myself, and when there is no particular desire for classes, I always know how to force myself to overcome the disagreement and get carried away. "I put myself at all costs to do something every morning and achieve a favourable state of mind for work."

Turgenev had the same attitude to creative work when he wrote to a young writer: "There is nothing to wait for the so-called gracious minutes of inspiration: it will come - all the better, but no - still work."

Inspiration is the most favourable condition for creative work. But it itself comes as a result of this work. "It seems to me," Gorky wrote, "that inspiration is mistakenly considered the causative agent of work, probably it is already in the process of successful work, as a consequence of it."

Questions to Repeat

1. What is the relationship between the motives and objectives of the activity?
2. What is called the "height of motivation"?
3. What is called a skill?
4. What is the relationship between skills and creativity?
5. List the most important points characterizing the formation of skills.
6. What is the difference between genuine craftsmanship and simple skill?
7. Under what conditions does repetition become an exercise?
8. What is a habit called and what is its difference from a skill?
9. What are the characteristics of the state of inspiration?
10. What forms are the preparatory stages of the creative process in various activities?
11. What conditions contribute to the productivity of creative work and, in particular, the emergence of a state of inspiration?

CHAPTER XII. PSYCHOLOGICAL PERSONALITY CHARACTERISTIC

§ 74. Mental Properties of Personality

Psychology studies not only individual mental processes and those peculiar combinations of them, which are observed in complex human activity, but also mental properties that characterize each human personality: its interests and inclinations, its abilities, its temperament and character.

You can't find two people who are exactly the same mentally. Each person differs from other people by a number of features, the totality of which forms his individuality.

Speaking of the mental properties of the individual, we mean the significant, more or less stable, permanent features of it. Every person happens to forget something; but not for every person "forgetfulness" is a characteristic feature. Everyone has experienced an exasperated mood, but "irritability" is typical only for some people.

The mental properties of a person are not something that a person receives in the ready form and keeps unchanged for the rest of his days. The mental properties of man - his abilities, his character, his interests and inclinations - are developed, formed in the course of life. These features are more or less stable, but not unchanged. There are no completely unchanging properties in the human personality. As long as a person

lives, he develops and, therefore, changes in one way or another.

No psychic feature can be innate. A person is not born, already having certain abilities or traits. Only some anatomical and physiological features of the body, some features of the nervous system, sensory organs and - most importantly—the brain can be innate. These anatomical and physiological features, which form innate differences between people, are called makings. The makings are important in the process of forming a person's personality, but they never predetermine it, i.e. they are not the only and the main condition on which this individuality depends. The makings, in terms of the development of the mental characteristics of a person, are significant, i.e. on the basis of certain makings can develop different mental properties depending on how the life of a person will proceed.

Pavlov's I.P. found that there are significant individual differences in the types of nervous system, or, what is the same, types of higher neural activity. Thus, the question of the natural preconditions of individual differences, the so-called "makings", received in the works of I.P. Pavlov its truly scientific basis.

Different types of higher neural activity differ from each other on the following three characteristics: 1) the strength of the main neural processes - arousal and inhibition; This trait characterizes the functioning of cortex cells; 2) balance between arousal and braking; 3) the mobility of these processes, i.e. the ability to quickly replace each other. These are the main properties of the nervous system. Different types of higher neural activity

differ from each other by a different combination, combining these properties.

The type of higher neural activity is the main characteristic of the individual characteristics of the nervous system of this person. As an innate feature, the type of higher nervous activity does not remain, however, unchanged. It changes under the influence of human living conditions and activities, under the influence of “constant education or learning in the broadest sense of these words” (Pavlov). “And that’s because,” he explained, “that next to the above properties of the nervous system continuously protrudes and its most important property - the highest plasticity.” Plasticity of the nervous system, i.e. the ability to change its properties under the influence of external conditions, is the reason that the properties of the nervous system that determine its type—the strength, balance and mobility of the nervous processes—do not remain unchanged throughout human life.

Thus, it is necessary to distinguish between the congenital type of higher nervous activity and the type of higher nervous activity formed as a result of living conditions and, first of all, education.

The individuality of a person—his character, his interests and abilities—always in one way or another reflects his biography, the way in life he has passed. In overcoming difficulties, will and character are formed and hardened, and appropriate interests and abilities develop in the occupations of certain activities. But since a person’s personal life path depends on the social conditions in which a person lives, the possibility of forming certain

mental properties depends on these social conditions. "Whether an individual like Raphael will be able to develop his talent," Marx and Engels wrote, "is entirely dependent on demand, which in turn depends on the division of labour and the conditions of education he has generated." Only the socialist system creates conditions for full and comprehensive personal development. Indeed, such a huge flourish of talents and talents, as in the Soviet Union, has not happened in any country and in any era.

The central importance for the formation of the individuality of a person, his interests and inclinations, his character is a worldview, i.e. a system of views on all the phenomena of nature and society surrounding man. But the worldview of any individual person is a reflection in his individual consciousness of the public worldview, public ideas, theories, views. Never before has the history of mankind seen such mass heroism, such feats of courage, such selfless love for the homeland, as in the Soviet people in the days of world war II and in the days of peaceful labour. The decisive condition for the development of all these qualities was the worldview of Lenin's party- Stalin, in whose spirit the consciousness of the advanced Soviet man grew, was brought up and developed.

Human consciousness is a product of social conditions. Recall Marx's words, which we cited earlier. «... Consciousness is a social product from the very beginning and remains it as long as there are people.»

However: "Public ideas and theories vary. There are old ideas and theories that have outlived their time and serve

the interests of the surviving forces of society... There are new, advanced ideas and theories that serve the interests of the advanced forces of society” (Stalin). The human assimilation of advanced worldview, advanced views and ideas is not carried out automatically, of course. First of all, it requires the ability to distinguish these advanced views from the old, outdated views, which pull a person back and hinder the full development of his personality. In addition, a simple “knowledge” of advanced ideas and views is not enough. It is necessary that they were deeply “experienced” by a person, to become his beliefs, on which the motives of his actions and actions depend.

Conditioned by a person’s personal life path, his beliefs in turn influence the course of this path, directing the actions of a person, his way of life and activities.

In childhood, education and training are crucial for the formation of a person’s mental characteristics. As the human personality is formed, self-education becomes increasingly important, i.e. the conscious work of man to develop his worldview and beliefs, to form desirable mental properties and to eradicate unwanted ones. Every person is to a large extent the creator of his own personality.

§ 75. Interests and Inclinations

The first thing that characterizes from the mental side of a person is his interests and inclinations, which express the direction of the person. The very fact of the direction of our consciousness at the moment on a certain object is called, as we already know, attention. Under the interests

of us we understand such attitude to the subject, which creates a tendency to pay attention to it. If we, characterizing a person, note his “interest in the theatre”, then we understand that he tends to be in the theatre more often, reads books about the theatre, does not miss in the newspapers messages, notes and articles concerning the theatre, that, participating in the conversation or listening to radio programs, he pays attention to everything, one way or another referring to the theatre, that, finally, his thoughts are often directed to the theatre.

There is some difference between “interest” and “inclination.” Under the interest of course, the focus on a certain subject, under the tendency of the same—the focus on the occupation of a certain activity. Interest is a tendency to familiarize yourself with a subject, to study it, to perceive it, to think about it. Inclination is a tendency to engage in certain activities.

Often the interest in the subject is associated with a propensity for relevant activities. Interest in chess almost always arises along with the tendency to play chess. But interest can exist regardless of propensity. Not all people interested in theatre have a penchant for theatrical activities. You can have a lively and sustained interest in history and no inclination to the activities of a historian.

Needs are at the heart of interests and inclinations. However, not every need generates a sustained interest that characterizes the direction of the person. The need for food is one of the basic needs of every human being. When this need is not sufficiently satisfied, i.e. when a person is hungry, he has an “interest in food”; his

thoughts focus on food. But such “interest” is temporary and passes as soon as a person is satiable; it does not express the steady direction of the person, he is not a characteristic feature of the person.

Interests are the most important motivating force to acquire knowledge, to broaden a person’s horizons, to enrich the content of his mental life. Lack of interests or poverty, insignificance of them make a person’s life grey and meaningless. For such a person the most characteristic experience is boredom. He always needs something external to entertain, to amuse him. Granted to himself, such a person inevitably begins to get bored, because there is no such subject, such a case, which in itself, regardless of external entertainment, would attract him, fill his thoughts, light up his feelings. A man with rich and deep interests does not know boredom.

Characterizing the direction of a person, we first of all pay attention to the content and breadth of his interests. If the direction of a person is limited by an isolated interest, which has no support neither in the worldview nor in the true love of life in all the richness of its manifestations, then no matter how significant the object of this interest is, neither normal development nor full life of the individual is possible.

Full development of the personality implies a greater breadth of interests, without which it is impossible to rich content of mental life. The abundance of knowledge that strikes us, which distinguishes many outstanding people, has at the heart of its breadth of interests.

When his daughters asked Marx to state his favourite saying, he wrote an old Latin saying, "Nothing human is alien to me."

A. M. Gorky in his conversations with young writers relentlessly called for the expansion of interests and knowledge. "There is nothing in our world," he said, "that there is nothing that is instructive." "Recently," Gorky said, "one novice writer wrote to me, 'I don't have to know everything, and no one knows everything.' I believe that nothing good will come out of this writer." A man who, in his younger years, puts limits on his interests and his curiosity, who says to himself in advance, "I don't have to know everything," is such a person, according to Gorky, can not achieve anything significant.

The breadth of interests does not, however, preclude any one major, central interest. Moreover, diversity of interests is only a valuable quality of personality if these interests are united by some basic life core.

In the same answers to his daughters, where Marx, as his favourite saying, wrote a call for boundless responsiveness to all human interests, he called the unity of purpose as his hallmark. Indeed, his whole life was aimed at achieving the common goal of liberating the working class.

M.I. Kalinin, speaking about the life path of Stalin, noted a single line of all life and activities of the great leader: "A seventeen-year-old young man set the task of his life to liberate the oppressed from the chains of capitalism, from all kinds of oppression. And he gave himself up to this idea without a trace. His whole life was subject to this

idea, and only to her.” The greatest example of conscious purposefulness can be the words of Comrade Stalin: “If every step in my work to elevate the working class and strengthen the socialist state of this class was not aimed at strengthening and improving the situation of the working class, I would consider my life aimless.” The unity of the goal of life, which is expressed in the central interest of life, is the core around which all other human interests are grouped.

Everyone should be interested, at least many, but one particular.

Suvorov can serve as an example of a person with an exceptionally wide range of interests subordinated, however, to one sharply expressed central interest. From an early age, he found an interest and a penchant for military affairs, which turned into a true passion. As a teenager, while still in the village, in his father’s house, he subordinated all his life preparation for military activities: read all the books available to him on military history and equipment, spent most of his time in solving tactical problems, trained his body to endure the hardships and hardships of combat life. And throughout his life, devoted entirely to military work, Suvorov never missed an opportunity to enrich his knowledge in any of the military specialties; at the age of 60, he was specifically involved in the study of marine affairs and passed the midshipman exam.

But at the same time Suvorov was interested in literally all areas of knowledge, all his free time until old age he read and studied and as a result he was one of the most educated people of his time. He knew mathematics,

geography, philosophy, history. He devoted a lot of time to learning languages. He knew languages: German, French, Italian, Polish, Finnish, Turkish, Arabic, Persian. Fiction occupied a particularly large place in his circle of interests. He not only constantly read the works of the best writers and closely followed the current literature, but also wrote poetry himself. Exceptional breadth of interests and boundless curiosity belonged to one of the most characteristic features of the great Russian commander.

Equally important is the sustainability of interests. There are people interested in a variety of subjects, but for a short time, one interest quickly gives way to another. For some people, these short-income interests are very strong and emotionally exciting; such people are usually called “fascinated” people. Becoming a permanent and characteristic of the person, the impermanence and instability of interests turn into a disadvantage. A person who is unable to have sustainable interests cannot achieve significant success in any field of activity.

Interests have another feature: their effectiveness, or strength.

Interest can be passive, to put it only in the fact that a person willingly stops his attention on a subject, if this object falls into his field of vision. This kind of interest is sufficient for the student to listen carefully in the lesson to the story, the teacher and willingly, even “with pleasure” prepared a lesson on the subject, but he can not encourage the student to actively, on his own initiative to look for sources to expand knowledge in the field. The extreme degree of passivity of interest is expressed in the

fact that a person in relation to the subject of interest is limited to the intentions to deal with it: “it will be necessary to start reading historical books”, “it would be good to go to the museum”. For some people, this kind of intention remains permanently unfulfilled, despite the absence of any external obstacles.

In contrast, a truly effective interest encourages a person to actively seek satisfaction and becomes the strongest motive for the activity. Driven by such interest, a person can overcome all sorts of obstacles and make any sacrifices.

Interest in military affairs, which reached Suvorov’s exceptional effective strength in childhood, won and physical weakness of the body, and categorical reluctance of the father to prepare the boy for military service, and the lack of any assistance in the study of martial arts. Lomonosov’s life is a continuous feat, the main driving force of which was an extraordinary force of interest and love for science.

§ 76. Ability and Talent

Abilities are called mental properties, which are the conditions for the successful performance of any one or more activities.

We call ability, for example, observation, which is of great importance in the work of a writer, scientist, teacher. We call visual memory, which is directly related to the work of the artist-painter; emotional memory and emotional imagination, which play a big role in the writer’s work; The technical imagination required in the work of an

engineer or technician; musical ear. We can call the abilities of the qualities of the mind that are a condition for the successful execution of many activities.

The combination of those deposits, which form the natural prerequisite for the development of abilities, is called giftedness.

The most important among the deposits are those that underlie the differential of the types of higher neural activity: strength, balance and mobility of the processes of arousal and inhibition. Therefore, a person's gift is closely related to his innate type of higher nervous activity.

However, as indicated earlier, the congenital type of nervous activity does not remain unchanged, and during life develops, changes, so it is necessary to distinguish between the congenital type of higher nervous activity and the type of higher nervous activity that has developed in the conditions of life. The properties of neural processes, which characterize the type of neural activity that has developed as a result, are essential for understanding the physiological basis of abilities. The speed and strength of the formation of different types of temporary communication systems depends on the strength, balance and mobility of the processes of arousal and inhibition.

Therefore, these properties of neural processes are essential for the success of a person's performance of a particular activity.

The success of a person's performance of any activity depends not only on his abilities. First of all, and most of all, it depends on the knowledge, skills and skills he has, i.e. what systems of temporary communication he has. Hence, it is clear the importance of learning for a person's fitness to do something.

But the abilities themselves, as mentioned above, although dependent on natural makings, are always the result of development. The development of abilities is carried out in the very activity for which these abilities are required, and above all in the process of training these activities. In the process of training, first, new systems of temporary communication are developed, i.e. new knowledge, skills are formed, and secondly, the basic properties of the neural processes are improved, i.e. the corresponding abilities are developed. At the same time, the second process - the development of abilities - is much slower than the first - the formation of knowledge and skills.

One of the characteristic signs of good deposits to the development of some ability is the early and at the same time independent, i.e. not requiring special pedagogical measures, manifestation of this ability. It is known that some children, long before the beginning of systematic learning of drawing or music, pay attention to their abilities to these subjects. For example, the Roman-Korsakov's musical ear was clearly manifested by the age of four. Repin, Surikov, Serov, ages 3-4, began to show their ability to work in fine.

In such cases, they often talk about "innate, or "natural, abilities." However, even in these cases, only the

makings, i.e. some anatomical and physiological features conducive to the development of abilities, can be innate. Even the most musically capable children must learn how to sing or learn melodies properly; even the most gifted children should learn how to draw. The peculiarity of these children lies only in the fact that the process of this teaching takes place in them at such an early age, so quickly and easily, in most cases during the course of the game, which eludes the attention of parents and teachers.

However, it is not always possible to observe such an early manifestation of ability and talent. Very often they first begin to appear relatively late, but in the future reach exceptionally high development. In these cases, the development of abilities is made possible only by a systematic study of the activity and systematic occupation of it. Therefore, the absence of an early manifestation of any ability should never be a basis for concluding that there are no makings for this ability; it is only by the results of training that the gift can be judged.

It should not be confused with the skill of any activity with skill in this activity. Gift is the natural premise of ability; mastery is a combination of knowledge, skills and skills, i.e. the most complex systems of temporal connections that arise in the brain during life as a result of learning in the broad sense of the word. And ability is not the same as knowledge, skill, skills. Many aspiring writers can be said to discover great abilities, but they are not yet to be said to have great writing skills.

While distinguishing between talent, ability and skill, we must at the same time emphasize the close bond

between them. The development of abilities depends on talent and at the same time the ease and speed of acquiring mastery depends. Acquisition of skill, in turn, contributes to the further development of abilities, while the lack of necessary knowledge and skills inhibits the development of the respective abilities.

No single ability can ensure successful performance. Observation alone, no matter how perfect, or just an emotional imagination, no matter how much it may be, does not make a good writer. The presence of the most beautiful musical ear does not mean that the owner of it can become a good musician, as the presence of a technical imagination alone does not say that a person can become a good design engineer. The success of any activity always depends on a range of abilities. For example, for the work of a writer, observation, figurative memory, and a number of qualities of mind, and abilities associated with writing, and the ability to concentrate a lot of attention, and a number of other abilities are of paramount importance.

That peculiar combination of abilities, which provides the possibility of creative performance of any activity, is called talent for this activity.

If the presence of one pronounced ability does not yet indicate a high talent in this area, then the weakness of any one ability can never be a reason to declare themselves unfit for this activity. You can become a great writer, having in his youth a bad verbal memory, or a great artist, having a bad visual memory. If other abilities required for this activity are quite pronounced, the person gets the opportunity to engage in this activity a lot and

relatively successfully, and this creates favourable conditions for the development of lagging capacity. As a result, it can “level out” so much that there will be no trace of its original weakness.

A very strong, effective and persistent propensity for a business, a penchant for genuine love for the cause usually indicates the existence of the most important abilities associated with this case. At the same time, such love for business is the most important factor in the development of talent. “Talent develops out of a sense of love for the cause,” Gorky wrote, “it is even possible that talent is , in essence, it is only love for business, for the process of work.” These words do not need to be understood literally - talent includes much more than love for the cause - but they express a very deep and true thought. In the absence of some basic core of abilities, a great, passionate love for business and can not arise, and if it arose, a person will always be able to overcome their weaknesses - to “fit” lagging abilities and achieve a full development of their talent.

The biography of the greatest of the speakers of antiquity, Demosthenes, is very instructive on this side. At a young age, he had the opportunity to hear a distinguished speaker speak. He was shocked by the enormous impact on people by the art of eloquence, and decided to succeed in it at all costs. After careful training under the guidance of the best teachers, he made attempts to speak publicly, but failed completely and was ridiculed by the people. He realized that this failure was perfectly legitimate and that he had a number of shortcomings that were unacceptable to the speaker: weak voice, mispronunciation, short breath, forcing him to

take frequent pauses, disrupting the meaning of phrases, awkward movements, confusing speech construction, etc. Otherwise, Demosthenes did. With unparalleled energy and perseverance, he set about overcoming his shortcomings. To strengthen his voice and achieve deeper breathing, he practiced making long speeches on the run or when climbing the mountain. To eliminate the shortcomings of pronunciation, he took small pebbles in his mouth and ensured that, and under this condition, his speech was clean and clear. He arranged a special dungeon in which he could practice exercises in the oratory for a long time. Sometimes he stayed in this dungeon for two or three months; not to allow himself to get out of there, he shaved his hair off half of his head, giving himself a look that made it difficult to appear in public.

Passionate love for work, faith in his talent and exceptional willpower gave Demosthenes the opportunity to overcome the insufficiency of a number of essential abilities. His name is surrounded by the glory of one of the greatest speakers of all time. One of the most important features of the human psyche is the possibility of very broad compensation of some properties by others, so that the missing ability can be very widely replaced by others, highly developed in this person. In other words, the same success may be based on very different combinations of abilities. This fact opens up really limitless possibilities of human development.

A striking example is the life of the deaf-blind Olga Skorokhodova. She lost her eyesight and hearing at an age when it had the same consequences as congenital deafness: she lost her speech. Thus, it was deprived not

only of the basic ways of perception of the outside world, but also of normal ways of communicating with people. The further life of Skorokhodova is a wonderful example of the conditions for the boundless development of talents and abilities created in our Soviet Union. A few years after her vision and hearing loss, she was placed in a special clinic; she not only learned to speak, read and write, but also became a highly developed person, an active Komsomol, leading public work. Moreover, Skorokhodova proved herself as a poet and as a scientist. Peru Skorokhodova owns one scientific book of outstanding interest, a number of essays and poems.

Skorokhodova has undoubted literary abilities in the absence of such seemingly necessary prerequisites for this as vision and hearing. Oli Skorokhodova's literary abilities were highly valued by Gorky, who had corresponded with her for several years. Here are excerpts from Skorokhodova's poem, in which she answers the question of how it is possible to write poetry to someone who does not see or hear:

Think others—those who hear sounds, Those who see the sun, stars and the moon:

*“How will it describe beauty without ripening,
How will it realize without hearing sounds and spring!?”*

*I will hear the smell and dew coolness,
the light rustling of leaves with my fingers catching,
Drowning in the dusk, I will walk through the garden,
and dream ready, and say love ...*

*I will see with my mind, I will hear with feelings,
and I will put on a dream of the free world...
Will each of the sighted beauty describe,
Smile a clear bright beam?*

*I have no hearing, I have no vision,
but I have more—feelings of living space:
Flexible and obedient, burning inspiration
I weaved life colourful pattern ...*

The remarkable development of Skorokhodova's literary abilities is a consequence, on the one hand, of the care shown by the party and the Soviet government, and on the other hand, the tireless work on herself by Skorokhodova herself and her passionate love of poetry. "Poetry is my soul," she writes in one of her articles. Passionate love for business and tireless work gave the opportunity to Skorokhodova to compensate her absent abilities of others and achieve full development of their giftedness.

It follows from all this that the lack of one of any private ability should never stop a person, if inclinations, interests and other abilities seriously encourage him to engage in this activity.

When we consider the issue of creative activity, we saw that creativity is always a big and hard work. But the more gifted, the more talented a person is, the more creativity he brings to his work and the more intense this work should be. Therefore, it is necessary to strongly reject the prejudice that arose in the conditions of the exploitative system, according to which good abilities supposedly save a person from the need to work, talent

allegedly replaces work. In contrast, we can say that talent is “love for the process of work, love for work. Inclination and ability to work are the most important components of true talent.

Creative attitude to work, which has become a characteristic feature of the advanced Soviet man, is one of the most important conditions of mass flourishing of talents in the USSR. Every work becomes creative work, and because of this in all kinds of activities we can observe manifestations of high talent, talent.

To consciously build your life, it is very important to be able to properly assess their abilities. But the attention should be directed not at how great my abilities are, how high my talent for one or another activity, but at what I am more gifted to, what abilities I have more vividly manifest. The height of giftedness is revealed only by the results of a person's life, and it is impossible to know these results in advance. The nature and direction of giftedness are manifested earlier: in stable interests and inclinations, in the comparative success of different activities, in the comparative ease of assimilation of different subjects.

The famous Russian writer Sergei Timofeevich Aksakov wrote his first book when he was 56 years old, and the works in which his literary talent—“Family Chronicle” and “Children of Bagrov's Grandson”—were written by him at the age of 65-67. Who could have predicted the height of his talent in his younger years? But the nature of his abilities was revealed very early: in childhood he was distinguished by extraordinary observation, passionate and steady love for literature, a penchant for literary pursuits.

Important for the question of giftedness and abilities is the indication of I.P. Pavlov about specially human types of higher nervous activity: the relative predominance of the first or second signalling system in certain manifestations of the higher nervous activity of man gave the reason to I.P. Pavlov to single out “artistic” and “thoughtful” types. Features of interaction between the two signal systems are most strongly detected in the extreme representatives of these types. The “artistic” type is characterized by increased sensitivity to arousal through the first signalling system: the richness and brightness of direct impressions delivered by the senses distinguishes representatives of this type. On the contrary, the “thoughtful” type is characterized by the ability and propensity for abstract thinking. As noted in the presentation of memory types, many people should be classified as a medium type that harmonically combines the action of both signalling systems.

The originality of giftedness, which distinguishes each person, is the key to the value of man for society. There are no people who are not capable of anything. Each person has a certain, characteristic of him talent, which provides the opportunity to successfully carry out certain activities. The breadth of interests and concern for the comprehensive development of abilities are the most important conditions for this gift to be manifested as early and more definite as possible.

In the Soviet Union, young people are given the widest opportunities for education and for choosing a specialty according to their inclinations and abilities. Our life opens up to every person the immense prospects for the use of his forces and abilities. Under these conditions, it makes

no sense to divide people into “capable” and “incapable.” Nikolai Ostrovsky rightly said: “We are not talented only lazy. They don’t want to be them. And nothing is born from nothing, the water does not flow under the recumbent stone.”

But the more sense we have the question: what is the most capable of this person, what are his abilities and his talent?

§ 77. Temperament

Since antiquity, it is customary to distinguish between four main temperaments: cholera, sanguine, melancholic and phlegmatic. Temperament is called individual features of a person, expressed: 1) in emotional excitability (the speed of the emergence of feelings and the strength of them), 2) in a greater or less tendency to strong expression of feelings outside (in movements, speech, facial expressions, etc.), 3) in the speed of movements, general mobility of the person.

Cholera temperament is characterized by fast-emerging and strong feelings, sanguine - quickly arising, but weak feelings, melancholic - slowly emerging, but strong feelings, phlegmatic - slowly emerging and weak feelings. Cholera and sanguine temperaments are characterized by: 1) rapidity of movements, general mobility and 2) the tendency to express feelings outside. For melancholic and phlegmatic temperaments, on the contrary, are typical: 1) slowness of movements and 2) weak expression of feelings.

Typical representatives of each of the temperaments can be described as follows.

Choleric is a person fast, sometimes choppy, with strong, fast-burning feelings, vividly reflected in speech, miki, gestures; often—short-tempered, prone to violent emotional outbursts.

Sangvinik—a person fast, mobile, giving an emotional response to all impressions; feelings of his directly are reflected in the external behaviour, but they are not strong and easily change.

Melancholic is a person who has a relatively small variety of emotional experiences, but a great strength and duration of them; he responds not to everything, but when he responds, he worries strongly, though he expresses little outwardly his feelings.

Phlegmatic is a slow, balanced and calm person who is not easy to emotionally hurt and impossible to infuriate; his feelings are almost in no way manifested outwardly.

Characteristic representatives of the four temperaments can serve four actors of Turgenev's novel "The Day before": Insarov (cholera temperament), Shubin (sanguine), Bersenev (melancholic), Uvar Ivanovich (phlegmatic). Bright representatives of cholera temperament - the old prince Bolkonsky ("War and Peace") and Chertopkhanov, the hero of two stories from Turgenev's "The Huntsman's Notes" ("Chertopkhanov and Nedopyuskin" and "The End of Chertopkhanov"). The finished type of sanguine is Stepan Arkadyevich Oblonsky ("Anna Karenina").

The contrast between sanguine and phlegmatic temperaments is vividly shown by Gogol in the images of Kochkarev and Podkoloxin ("Marriage"). The contrast between sanguine and melancholic temperaments is clearly stark when comparing two female images in War and Peace: Lisa, the wife of Prince Andrew ("little princess"), and Princess Mary.

Characteristic features of temperaments are explained by those properties of higher neural activity, which are the basis of the division of types of higher nervous activity: 1) by the power of nervous processes, 2) the poise or unbalanced processes of arousal and inhibition, 3) the mobility of nervous processes. For example, the temperance of choleric, its propensity for violent affective outbursts is explained by the lack of balance between the processes of arousal and inhibition, the predominance of arousal over inhibition. This type of nervous system is called "excitable," or "unbridled," type. The difference between emotional liveliness and overall sanguine mobility, on the one hand, and emotional calmness and general slowness of phlegmatic—on the other, is explained by differences in the degree of mobility of the nervous processes.

We know that the type of nervous system is not something completely unchanged. Not unchanged and temperament. Often the temperament changes with age; it can also change "under the influence of life education." But in any case, temperament is a fairly stable property, which is among the characteristic mental properties of the person.

It would be a mistake to think that all people can be divided by four basic temperaments. Few are pure representatives of the types of choleric, sanguine, melancholic or phlegmatic; in most, we see a combination of individual traits of one temperament with some features of the other. The same person in different situations and in relation to different areas of life and activity can detect traits of different temperaments.

For example, Pierre Bezukhov (“War and Peace”) in most ordinary everyday manifestations striking features of phlegmatic temperament: slowness, good-natured calmness, unflappability. But in rare, extraordinary circumstances, he discovers typical cholera temper and not only gives violent emotional outbursts, but also commits under the influence of their extraordinary actions. At the same time, we may notice his traits characteristic of melancholic temperament: slow-emerging, but strong, stable and almost non-external feelings.

Each of the temperaments has its positive and negative sides. Passion, activity, energy choleric, mobility, liveliness and responsiveness of sanguine, depth and stability of feelings of melancholic, calmness and lack of haste phlegmatic—these are examples of those valuable properties of personality, inclination to which is associated with individual temperaments. But not all choleric is energetic and not every sanguine is responsive. These properties need to be developed in themselves, and temperament only facilitates or complicates this task. Choleric is easier than phlegmatic to develop the speed and energy of action, while phlegmatic is easier to develop aging and composure.

To use the valuable sides of his temperament, a person must learn to own it, to subjugate it to himself. If, on the contrary, the temperament will own a person, manage his behaviour, then at any of the temperaments there is a danger of developing unwanted personality traits. Cholera temperament can make a person intemperate, sharp, prone to constant “explosions.” Sanguine temperament can lead a person to frivolity, propensity to scatter, insufficient depth and stability of feelings. With melancholic temperament in a person can develop excessive isolation, inclination to completely immerse themselves in their own experiences, excessive shyness. Flegmatic temperament can make a person sluggish, inert, often indifferent to all impressions of life.

Awareness of the positive and negative aspects of one’s temperament and the development of the ability to own and manage them is one of the most important tasks of educating a person’s character.

§ 78. Character

The word “character” refers to the combination of the core mental properties of a person, which impose an imprint on all his actions and actions, those properties on which first of all depends, how a person behaves in different life situations. Knowing the character of a person, we can foresee what he will do in such circumstances and what to expect from him. If a person’s individuality is devoid of internal certainty, if his actions depend not so much on himself as on external circumstances, we are talking about an “characterless” person.

The mental properties of the personality, from which the character is composed and which allow to predict the behaviour of a person under certain conditions, are called traits. Courage, honesty, initiative, hard work, conscientiousness, cowardice, laziness, stealth are examples of different character traits. Considering that one person has courage and the other is cowardly, we say that we should expect both when faced with danger. Pointing to the initiative of the person, we want to say what attitude to the new business should be expected from him.

Temperament alone cannot be bad or good; can be only a good or bad ability to own his temperament, to use it. In relation to character, we constantly use the expression “good character” and “bad character.” This shows that the word “character” we refer to those characteristics of a person that are directly reflected in his behaviour, on which his actions depend, which are therefore of direct vitality. Many of the character traits we always value as positive—courage, honesty, honesty, modesty, others - as negative—cowardice, deceit, irresponsibility, bragging, etc.

Character manifests itself both in the purposes that a person sets himself, and in the means or methods in which he carries out these goals. The personality of a person, according to Engels, is characterized not only by what he does, but also by the way he does it.

Two people can do the same thing and pursue the same goal. But one will work with enthusiasm, “burn” what he does, while the other will work in good faith, but indifferently, guided only by a cold consciousness of duty.

And this difference in how two people do the same thing often has a profound characteristic, reflecting the stable characteristics of the individuality of the two people.

The character of a person is primarily determined by his attitude to the world, to other people, to his work and, finally, to himself. This attitude finds its conscious expression in the person's worldview, in his beliefs and views and is experienced by man in his feelings.

Hence, it is clear that the nature is closely related to the worldview and beliefs of the person. From firm beliefs, clarity of the goals that a person sets himself is born, and clarity of goals is a prerequisite for consistency of action.

People without strong convictions can never have a firm character; their behaviour will be determined mainly by external circumstances and random influences. Comrade Stalin gave a vivid characterization of such people: "There are people about whom it is not said, who he is, whether he is good, whether he is bad, whether he is courageous, or cowardly, whether he is for the people to the end, or he is for the enemies of the people ... the great Russian writer Gogol said about people of such an uncertain, unformed type quite aptly: "People, he says, are uncertain, neither of these, nor you will understand what kind of people, neither in the city of Bogdan, nor in the village of Selifan." About such undecided people and figures are also quite aptly said in our people: "so-so man —no fish, no meat," "no god candle, no damn poker.""

Character is connected to all aspects of mental life. Character traits can be individual characteristics and cognitive processes, and feelings, and will, if only they

become essential in the mental warehouse of the person, if they affect his line of conduct, determine his characteristic method of action.

Signs such as observation or criticality of the mind are often not just features of the processes of perception or thinking in the person, but significant features of his personality. The criticality of Onegin's or Andrei Bolkonsky's mind is undoubtedly a character trait.

It is even more obvious that personality traits can be individual characteristics in the field of feelings. Manilov's sentimentality, the rapid dullness of Onegin and Pechorin's feelings are all distinct character traits.

However, the predominant characteristic of the character are the features of the will, as the side of the psyche, which is directly expressed in actions and actions. All the strong-willed qualities that we have disassembled in q 67, acquire the importance of character traits, if they constitute the stable properties of the individual. It is possible, of course, to show in a separate case determination or perseverance, without being either a determined or persistent person. But as soon as determination becomes a constant sign of the willful actions of the person, it thus becomes a trait of character.

A large part of the character traits has a complex nature and includes features of both cognitive, emotional and willful spheres. This applies to, for example, traits such as courage, hard work, initiative, modesty and others.

Analysing individual character traits and classifying them is one of the most difficult tasks of psychology. Here we

point out some of the most important groups of character traits.

First, the most common character traits that form the mental identity. These are, for example, the following important features: principle, consistency, courage, honesty, discipline, activity.

Secondly, the traits in which the person's attitude to other people is expressed. This includes such traits as sociability (and the opposite trait—isolation), frankness (and the opposite—stealth), sensitivity, ability to be friendly (the trait that is meant when they say “he is a good comrade”), politeness and a number of others.

Third, traits that express a person's attitude to himself. These are: self-esteem, modesty (and the opposite of it - conceit, arrogance), touchiness, shyness (which is sometimes the result of great modesty, and sometimes - the result of great self-love), egocentrism (i.e. inclination to constantly have in the centre of attention of themselves and their experiences), selfishness (i.e. inclination to care on the advantage of their personal good) and others.

Fourth, traits that express a person's attitude to work, to their work. This includes: initiative, perseverance, hard work (and the opposite trait—laziness), love to overcome difficulties (and the opposite trait—fear of difficulties), conscientiousness, accuracy and others.

Character is even less than any other personality quality, is an innate and unchanging property. Character traits are not only manifested in actions and actions, they are formed, formed in them. To become careful, you need to

systematically act carefully to become polite, you need to constantly behave politely. Courage is formed in the process of committing courageous acts, and the trait of character it becomes when such actions cease to be random episodes in the life of a person and turn into a habitual, normal for him way of action.

A person's worldview and beliefs create a desire, a tendency to develop certain traits of character. But these trends can be realized only if the person will constantly and steadily act accordingly. The only way to make yourself disciplined is to be disciplined all the time.

There is no character that cannot be remade. It was therefore pointless to invoke any ill-deed as a lack of character. Man is responsible for his own character.

§ 79. The Character Traits of the Soviet Man

The most important character traits are determined by the social conditions in which a person lives, and his worldview, his beliefs. Therefore, we can talk about typical characters, which are products of certain socio-historical conditions.

In the images of Pavel Petrovich and Nikolai Petrovich Kirsanov ("Fathers and Children" of Turgenev), Oblomov, Rudin, we see typical character traits of Russian landowners of the mid-19th century. Typical character traits of an advanced revolutionary worker are given with great force by Gorky in the image of Pavel Vlasov ("Mother").

In class society, it is impossible to speak of characters typical of the whole nation. The characteristics of the mental warehouse characteristic of this nation are receding to the differences in the class of a person. As it is impossible to talk about the worldview, general for the landowner and the peasant, for the capitalist and the worker, so it is impossible to talk about the commonality of their characters. Careful analysis can distinguish the traits that characterize the mental warehouse of a given nation; but these traits do not define the character of a person in a class society, nor are they central, decisive traits.

In the Soviet Union, in the country of victorious socialism, there are no antagonistic classes. All exploitative classes—the class of landlords, the class of capitalists—have been completely eliminated from us. We have a working class, a class of peasants, remained intelligentsia. But there are no antagonistic contradictions between these social groups: their interests are not only not hostile, but, on the contrary, friendly. The very difference between them is gradually being erased; “... the distance between these social groups is shrinking more and more” (Stalin).

The common vital interests that unite all workers of the Soviet state are immeasurably more important, more important, than the interests of individual social groups. The struggle for lasting peace in the world, the construction of communism in our country make up the meaning of the life of all Soviet people. The unified worldview - the communist worldview, the worldview of the great party of Lenin - Stalin - unites the entire Soviet people. The Great Patriotic War showed the monolithic unity of the entire Soviet people, led by the Communist

Party and the great leader of nations Comrade Stalin. This same unity is at the heart of the labour feats that Soviet people perform at all parts of the work during the post-war Stalin's five-year period.

On the basis of the unity of vital interests and worldview in the character of the Soviet people stand out common features typical of any advanced Soviet man, as a man of socialist society, as a fighter for communism. The new spiritual image, which distinguishes the Soviet people of our days, also affects new character traits. The most important task currently facing the psychological science is the study of typical traits of the character of the Soviet man.

It should not be overlooked, however, that in the character of a person, along with the traits of the general, typical for all members of the historical group, there are also features of the individual, distinguishing each person from other representatives of the same group. This is especially important to emphasize by studying the characters of the Soviet people. Under the socialist system, for the first time in the history of mankind, conditions are created for truly comprehensive development of the individual. This means that the socialist system creates the most favourable conditions for the unfolding of all the infinite variety of individual characters of people.

The unity of the worldview does not exclude the diversity of characters. It excludes only certain traits that are contrary to the principles of this worldview. For example, cowardice, laziness, irresponsibility are at odds with our worldview and therefore incompatible with the image of

the advanced Soviet man. So, when studying the characters of the Soviet people should be guided by the following two provisions: 1) There are character traits common to all advanced Soviet people and reflecting the commonality of their vital interests and worldview. 2) The presence of these common character traits does not preclude an infinite variety of individual characters.

A vivid illustration of this can be seen, for example, in Fadeev's novel "Young Guard". All the heroes-young Guards are united by common features, characterizing their mental appearance as the best representatives of the advanced Soviet youth. But at the same time, their individual characters are sharply different. The individual character traits of Uli Gromova and Luba Shevtsova, Seryozhi Tyulenin and Vanya Semnukhov are in many ways the opposite. Let's focus on some of the most important character traits typical of the advanced Soviet man.

1) Ideological orientation and purposefulness. There is nothing more alien to the psychology of the Soviet man, but the indimentation and consciousness of the aimlessness of his existence, his activities.

We know that in the past, the "tragedy of life" of many intelligent and gifted people, not satisfied with the social conditions in which they lived, was the lack of a guiding life idea, the lack of a goal for which it would be worth living and fighting. Such people were aware of themselves, in Herzen's apt expression, "smart irrelevances." Let us recall the entry in Pechorin's diary, made by him the night before the duel: "I run through all

my past and ask myself involuntarily: why did I live? for what purpose was I born?"

In Soviet reality, "extra people" or "smart irrelevances" are impossible. The great goal facing the entire Soviet people - the construction of communism, the struggle for communism - puts forward an enormous number of subordinate goals and more private tasks that define the activities of every Soviet citizen. It is impossible to imagine a Soviet man - a worker, a peasant, an intellectual - who would suffer from the aimlessness of his activities. It can only be about how clearly a person is aware of the purpose of his activity and how much he subordinates all his strength and abilities to that goal. This willingness to give all his strength and ability to achieve the goal is called purposefulness, characteristic of the advanced Soviet man. The idea of the Soviet people lies in the realization of the connection between the private goals and tasks that each person faces in his work, and the great ultimate goal - the construction of communism, to which the Soviet people lead the party led by Stalin's genius. Knowing how to see in every small business the necessary step to achieve the ultimate goal is the best indicator of human ideology. The wonderful life of Nikolai Ostrovsky was possible only because all of it was the service of the great idea of communism. To the question of one foreign correspondent: "Tell me, if it were not for communism, could you also carry your position?"

2) Soviet patriotism. "Patriotism," Lenin said, "is one of the deepest feelings enshrined in centuries and millennia of isolated homelands." And in the past, the peoples of the USSR put forward many wonderful patriots who gave their forces to the interests of the homeland, fought

against all sorts of oppressors and enslavers of their people.

Soviet patriotism is patriotism of a new, higher type. "For Soviet patriots, Homeland and communism are united in one inseparable whole" (Molotov). The Soviet people see in their homeland the country of victorious socialism, the country making the transition to communism, a country that is a beacon for all progressive humanity. The struggle for communism is inseparable for the Soviet people from the struggle for the interests of their socialist homeland.

The basis of Soviet patriotism is not racial or national prejudices, but love for the Soviet homeland, which is a fraternal community of workers of all nations of our country. "Soviet patriotism does not divide, but, on the contrary, unites all the nations and nationalities of our country into a single brotherly family" (Stalin).

The love for the homeland of the Soviet people has an active, effective character. This is a hot, passionate love, not stopping before any victims, if they are required by the interests of the homeland. It is love, inextricably linked with the same passionate hatred for all enemies of the homeland, love, knowing no mercy to enemies. Soviet patriotism includes the selfless devotion of the Communist Party, leading the peoples of our country to communism, leading all the grandiose work to build a new, socialist society. Soviet patriotism is inseparable from boundless love, respect and devotion to the great leader of nations Comrade Stalin, who live in the hearts of all Soviet citizens. "For the homeland, for Stalin!" - with these words went into battle hundreds of thousands of

heroes who covered themselves with immortal glory during the Great Patriotic War. And now, in the years of post-war peaceful construction, Stalin's name inspires Soviet patriots working in factories and factories, on collective farm fields, in scientific laboratories, in schools, in hospitals, in distant expeditions.

A remarkable manifestation of Soviet patriotism is the national concern for the great constructions of communism. The construction of grandiose canals and hydroelectric power plants, forest plantations, transforming the nature of our homeland, became a blood business of millions of Soviet people. Soviet patriotism is a great driving force for the development of Soviet society on the way to communism.

3) Collectivism. There can be no personality outside the collective in Soviet society. The Soviet man can not set himself vital goals, which would be contrary to the goals of the collective, the Soviet man does not consider his personal destiny, his personal success is detached from the fate of the collective, from the success of the general, collective cause. Consciousness of its inseparable connection with the collective, of which this person is a member, and in the end with the entire Soviet people, the consciousness that the common interests, the interests of the collective, are above narrowly personal interests, is the basis of the collectivism of the Soviet people.

In a class society based on the principle of private property, the morality of individualism prevails. "The old society," Lenin said in a speech at the 3rd Congress of the Komsomol, "was based on the principle that either you rob another, or you rob you, or you work for another,

or it is for you, or you are a slave owner, or you are a slave.” And it is clear that people brought up in this society “with the mother’s milk” perceive the psychology of a person “who cares only about having his own, and he does not care about the other.”

Destruction of private property for means of production, transition to a new, socialist system destroyed the material basis of individualistic psychology and created the foundations of a new, collectivistic psychology. The psychology of individualism is very pronounced, for example, in the image of Pechorin. The story “Taman”, which is an excerpt from Pechorin’s notes, ends with the following words: “I don’t know what happened to the old woman and the poor blind. And what do I care about the joys and calamities of men, me, the errant officer, and even with the roadside on the treasury need!..”

The attitude towards people reflected in these words is absolutely impossible for an advanced Soviet man. A characteristic feature of the psychology of the Soviet man is the destruction of the gap between personal and public interests, between their personal “joys and disasters” and “joys and disasters” of other people. True collectivism is expressed in the fact that the common interests, the interests of the collective, become personal interests, that the person “lives” collective interests, experiences them as acutely as their personal interests.

The sense of collectivism of the Soviet man is vividly shown in Pavlenko’s novel “Happiness”, in the image of Voropaev. Retired colonel, four times wounded, lost a leg, sick with tuberculosis, Voropayev after demobilization comes to Crimea with a dream to find

happiness in a quiet life together with a young son. Reality overturns these dreams and shows that for Voropayev, a communist, a truly advanced Soviet man, not this path leads to happiness. He finds his happiness in working with people, with the people, first as a district propagandist, and then as secretary of the party's district committee. In this work he found that "excitement, contentment and confidence that make a person happy." "Twenty years I've been in the party," says Voropayev, "an old man who has lived a great life, and, believe me, has rejuvenated my work with you. Not consciously, but with my shoulder, my body, my breath, I feel that I am a people, in the people, with the people, that I am his voice." Voropayev's image shows the type of advanced Soviet leader, who is characterized by a connection with the people, care for people, an organic need to help people. "It's nice to have people who want to help," Voropayev said. The most significant feature of Voropayev's character is expressed in the following words, said about him by one of the actors of the novel: "Voropayev is a man for all."

4) Socialist humanism. The collectivism of the Soviet people is inextricably linked with the humanistic, humane attitude to people, care for people, love for children, which is the essence of socialist humanism.

In one of his speeches, M.I. Kalinin, answering the question about what the best human qualities should be brought up among the Soviet youth, put in the first place "love, love for their people, love for the working masses." "Man," said M.I. Kalinin, "must love people. If he loves people, he will live better, life will be more fun, for no one

lives so poorly in the world, as a misanthrope—a misogynist.”

The ideal of humane attitude to man Soviet people see in Comrade Stalin. “Stalin’s care for people” we call a sensitive, careful, caring attitude to every person, the builder of the socialist society.

In the novel “Happiness” along with Voropayev, whose characteristic feature is the care of people, a remarkable ability to grow the frames, is shown another leader, Korytov, who, despite his undoubted devotion to the party and ardent love for his district, can not be recognized as a real communist leader. Korytov’s weak side is first of all the lack of genuine attention and interest in man, the lack of Stalin’s care for people, and therefore the inability to find or grow personnel. “I am not interested in your individual person, brother,” says Korytov Voropaeva. I’m interested in people. I like to generalize.” The result is Korytov’s separation from the masses, from the people, his transformation into a “single leader” (as Voropayev characterizes him).

The traits of genuinely socialist humanism are vividly displayed in the image of Commissioner Sparrow from “The Tale of the Real Man” field. His attentiveness to people, to their thoughts, concerns, interests is so great that he - in the words of his neighbor on the hospital ward of the Hero of the Soviet Union, Siberian collective farmer Stepan Ivanovich - as if “the sorcerer” “guesses” to “other people’s thoughts” is able to “everyone to pick up his special key”.

Being himself terminally ill, he takes rare sensitivity to make it easier for Meresyev to survive the greatest misfortune for him—amputation of legs. “Anticipating the events, the commissioner hid some of his letters to make it a terrible day for Meresyev, passing friendly greetings and news from his native airfield, to soften the heavy blow for him.” He managed to prepare a decisive turn in the mood of Meresyev, who thought about suicide after the amputation, showing him a note in the newspaper about the Russian pilot, who learned to fly with an amputated foot.

Socialist humanism has nothing to do with sentimental love for all people indiscriminately. He not only admits, but also demands along with great love and great hatred. From the effective love for people, for the people, for all workers, an irreconcilable hatred is born to the enemies of workers, to those who fight against the interests of the people, who block the way to a happy future.

5) Communist attitude to labour. One of the most important traits of the character of the Soviet man is the new attitude to work. For the Soviet people, work is the main thing of their lives, the main form of personality, the centre of the most important interests, the source of the greatest joys. For Soviet people, there is no gap between work and personal life; on the contrary, work is the main content of a person's personal life. At the same time, the Soviet man is characterized by a “conscious attitude to his work, as a matter of public importance and as a holy duty to the Soviet state” (Molotov). “Under capitalism, work is private and personal. Have worked out more, get more and live for yourself as you know” (Stalin). Our work of each person has a public significance. The work

achievements of every employee are considered as a matter of public, state importance. Therefore, our work becomes a matter of honour and glory.

In relation to work, the most important feature of the psychology of the Soviet person - the fusion of personal and social: as the consciousness of the social importance of work increases, the place occupied by work in the personal life of the person increases. Socialist competition, which is the main form of the socialist organization of labour, is radically different from capitalist competition. In capitalist competition, personal success is achieved by defeating others. In a socialist competition, every single employee strives to achieve the best results in the interests of the common cause. "The principle of socialist competition: friendly assistance to the lag behind the front-runners in order to achieve a common uplift" (Stalin). Envy of someone else's success, the desire to move forward at the expense of the lag of others - alien psychology of the advanced Soviet man.

The characteristic feature of the Soviet worker is the creative attitude to work, which is the basis of those remarkable labour achievements that our workers, collective farmers, representatives of the Soviet intelligentsia give. In our Soviet reality, every work becomes creative work.

6) Consciousness of duty and responsibility. High ideology and principle, distinguishing the advanced Soviet man, suggest and highly developed consciousness of duty, a sense of duty. And the consciousness of his civic duty, duty to the motherland, to the party, to the collective is the basis of the responsible

attitude of the person to the task entrusted to him, to his duties, to all his actions and actions. The Soviet man has a sense of responsibility not only for his personal work and for his actions, but also for the work of others, for their behaviour. Hence the great demands for themselves and for others.

This trait clearly speaks to all the best, advanced representatives of the Soviet people, whose images are given in our fiction. Let's remember Pavel Korchagin ("How steel tempered" N. Ostrovsky), Commissioner Vorobyev ("A Tale of a Real Man" Field), Colonel Voropayev ("Happiness" Pavlenko). The heightened sense of responsibility for the success of all the heroic activities of the "Young Guard" is an integral feature of Oleg Koshevoy's character. "He increasingly confessed," we read in Fadeev's novel, "that the success or failure of their activities largely depends on how much he, Oleg, among all his comrades will be able to foresee or make a mistake." Hence his remarkable concentration, inner "tightening", unsolicited demands on himself and others.

7) Ready to overcome difficulties. Strong-willed personality qualities are of paramount importance in character, and will, as we know, is expressed in overcoming difficulties. Often the will is called the "character ridge." The "character ridge" can therefore be called the ability to overcome difficulties.

In relation to difficulties, the strength of character, its firmness, resilience, and without these qualities it is impossible to imagine the spiritual image of the Soviet man. The Soviet man is primarily a fighter for communism and a builder of communism. For the

wrestler and builder, the firmness of character, the willingness to overcome any difficulties, to break any obstacles - one of the most necessary mental qualities. Comrade Stalin teaches the Soviet people not to be afraid of difficulties, not to turn a blind eye to them, but to boldly go to meet difficulties, fight them and overcome them. "Have you seen fishermen before the storm on a big river like Yenisei? Comrade Stalin said in one of his speeches. "I've seen them more than once. It happens that one group of fishermen in the face of the storm mobilizes all their forces, inspires his people and boldly leads the boat towards the storm: "Hold on, guys, tighter behind the wheel, cut the waves, our will take!" maybe one day it will bring to the shore." The faint-hearted desire to hide from the storm, to retreat before difficulties is unworthy of the Soviet man. "The difficulties exist to fight them and overcome them" (Stalin).

8) Courage. Courage is a complex character trait, which includes bravery, courage in direct confrontation with danger, readiness, without stopping at nothing, to fight for the great idea of communism, resilience, endurance, self-control.

In his radio speech on July 3, 1941, Comrade Stalin said: "The great Lenin, who created our State, said that the main quality of the Soviet people should be courage, courage, ignorance of fear in the struggle, readiness to fight together with the people against the enemies of our Motherland." Soviet people responded to these words of the leader with military feats on the battlefields, selfless struggle in the enemy's rear, heroic deeds on the labour front. Samples of unparalleled in the history of courage showed the Soviet youth - Kosmodemyanskaya,

Alexander Matrosov, Komsomols of Krasnodon. The courage of the Soviet man stems from the end of a conscious sense of duty, to the end of conscious responsibility. Manly man is not distinguished by the fact that he never feels fear, but by the fact that he, despite fear, does what he should. Different people experience danger in different ways, but every person worthy of the name of a Soviet citizen should behave courageously at any danger. Not the coward who feels fear, but the one who, out of fear, can change his cause. "Coward," Nikolai Ostrovsky rightly said, "is almost a traitor today and certainly a traitor in the struggle." That's why "coward in our country is a despicable creature." An illustration to these words can serve as a terrible story of Stakhovich, betrayed the heroes-young guards.

9) Initiative. Creative attitude to work, willingness to overcome difficulties require as a necessary condition of initiative. The initiative person does not expect a "hint" from the outside; he is capable of personal repair, not afraid of creative risk.

The initiative of the Soviet people is inextricably linked with creative energy, the ability to dare, with the "sense of new" without which an advanced figure of socialist society is impossible. The innovation of our Stakhanov workers, advanced collective farmers, our scientists, technology and the arts shows that initiative is a hallmark of the spiritual image of the Soviet man.

Initiative is the most important quality of the Soviet youth. Addressing the Komsomol workers, M.I. Kalinin said: "In your speeches, creative thought and initiative should be beaten with the key... Your energy should boil, and if it

does not boil, then what kind of young people are you, what kind of Soviet patriots are you?" Describing Oleg Koshev, Fadeev notes that "the basis of his nature" was "an exceptional thirst for activity, a desire to express himself, a desire to interfere in people's lives, in their activities, in order to bring into it something more perfect, faster turning and filled with new content." Let us recall Oleg's first meeting with Tyulein, even before the organization of the Young Guard, and their conversation, in which Oleg outlined his plan of clandestine work, a plan that reflected the remarkable initiative of this 16-year-old boy: "Oleg developed before his comrade his plan of action: to look at the youth, to take on the sign of the most vedering, persistent, fit for business; to find out who is arrested in the city and in the area where they are sitting, to find an opportunity to help them and to continuously scout among German soldiers about all military and civilian activities of the command."

The exceptional initiative of Sergei Tyulenin was already manifested in the fact that he immediately after the occupation of the Germans Krasnodon, one, on his own initiative and without anyone's help, set fire first to the building of the trust, which housed the German headquarters, and then a bath, equipped by the Germans under the barracks. On his own initiative, on the eve of the German occupation of Krasnodon, some of the wounded left in the hospital were mixed up in private apartments and thus saved from death.

10) Modesty. Such traits of the character of the Soviet people, such as ideological, collectivism, high demands on themselves, are at odds with excessive appreciation of their personality, the desire to highlight their personal

merits, with all sorts of conceit and arrogance. Modesty is one of the typical traits of a Soviet man.

“Modesty adorns a fighter,” said Nikolai Ostrovsky, “the puffiness, the cognition is the capitalist old, it’s from individualism. The more modest the fighter, the more beautiful he is.” Characterizing one of the best commanders of the Red Army, a hero of the Civil War, T. Kotovsky, Comrade Stalin brought to the fore two features of his character: bravery and modesty. “The bravest among our humble commanders and the most modest among the brave - so I remember T. Kotovsky.”

It is very instructive from this point of view the parallel between the two senior employees of the youth underground organization Simferopol: the secretary of the Komsomol organization and the commissioner - Boris Khokhlov, subsequently arrested by the Germans and tortured in the Gestapo, and the commander of the organization—Anatoly (“In the Crimean Underground” I. Kozlov).

Describing his meetings with Boris Khokhlov, the head of the Simferopol underground I. Kozlov says: “From the first meeting this young man made an unusually bright, charming impression on me. He was... unlike Toli, so to speak... organically modest. He was genuinely embarrassed, even blushing, when one day, speaking of their activities in the German rear, I uttered the word “heroic”. Everything they did seemed to him perfectly natural, for granted. It was joyful and strange for me to hear how this young man, yesterday’s schoolboy, simply and naturally calls “work” heroic, without exaggeration, feats of Komsomols.”

I. Kozlov Anatoly gives the opposite characteristic: ““Kostya” (the guerrilla nickname of Anatoly. B.T.) Was. brave, proactive guy, but he was sick of excessive ambition and arrogance, which really disturbed me. It was unpleasant to hear when in conversations with me he tried his best to diminish the role and merits of Boris Khokhlov in the creation of the Komsomol organization.” This seemingly inconsequential flaw has had very serious consequences. After Boris’s arrest, when Anatoly actually found himself at the head of the Komsomol organization, he began to show extreme frivolity and indiscipline. Seeking to personally advance, he made without coordination with the party leadership of the Simferopol underground risky and in fact useless operations that threatened to destroy the whole affair. Eventually I had to suspend him from his job.

11) Cheerfulness, self-confidence, optimism. The spiritual image of the Soviet people is imbued with vivacity and optimism. The source of them are the grandiose successes of our homeland in all areas of socialist construction and deep confidence in the victory of communism. And confidence in the rightness of the idea, in the rightness of his business gives rise to confidence in their abilities. Modern bourgeois culture is riddled with decade and pessimism. “The sense of doom is a feeling that is understandable to the public consciousness of an endangered group” (Yudanov). In contrast, the joy of life and optimism triumph in Soviet culture. There is no such dire situation, there is no misfortune that could defeat the great love of life, distinguishing fighters for a better future of mankind, builders of new life.

One of the best sons of Lenin's great party—Stalin, Nikolai Ostrovsky, paralyzed, blinded, experiencing severe physical suffering, until the last day did not lose the joy of life. His letters to family and friends are invariably imbued with love of life and a sense of happiness: "I never thought that life would bring me such great happiness... All life is filled with the all-conquering joy of creativity. And who knows when I was happier - a young man with blossoming health or now?.." "Life for my perseverance has brought me joy immeasurable, marvellous, beautiful..."

"It is joyful to live and fight in a country where the great wisdom of the party and the iron will of its leader Joseph Stalin forever frees man from the cursed skills and prejudices of the past," Gorky wrote. The Soviet people were very happy to be the first in the history of mankind to build a communist society.

Questions to Repeat

1. What determines the formation of mental properties of a person?
2. Define interest.
Describe the main features of interests.
4. What is the difference between interest and inclination?
5. What is the difference between "gift" and "ability"?
6. What is the relationship between giftedness and skill?
7. What is temperament?
8. What is character?
9. What is the relationship between a person's character and worldview?
10. Which groups can be divided into character traits?

11. List the most important character traits of the Soviet man.