



## PSYCHOPHYSIOLOGICAL BASIS OF PERSONALITY BEHAVIOR.

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### Abstract.

This article discusses the psychophysiological basis of personality behavior, a scientific study of the impact of psychological health on human behavior by scientists of psychophysiology, increasing number of young people with deviant behavior, as well as changes in mental health, analyzed the state of depression and its psychophysiological basis, problematic and urgent issues.

**Key words and expressions:** personality, psychophysiology, psycho-emotional movement, behavior, extreme state, deviant behavior, depression, frustration, emergency, internal, volitional states.

**Аннотация:** В этой статье рассматриваются психофизиологические основы поведения личности, научное исследование влияния психологического здоровья на поведение человека учеными-психофизиологами, растущее число молодых людей с девиантным поведением, а также изменения в психическом здоровье, проанализированы состояние депрессии и ее психофизиологические основы, проблемные и насущные вопросы.

**Ключевые слова и выражения:** личность, психофизиология, психоэмоциональное движение, поведение, крайнее состояние, девиантное поведение, депрессия, фрустрация, экстренальное, внутреннее, волевое состояния.

**Introduction.** In addition to paying attention to the behavior of the people around him, social behavior also requires regular analysis of his personal actions and their consequences. Because it is impossible for a person to understand another person and experience the emotional experiences of others without fully understanding himself, without coming to terms with his personal "I". A clear manifestation of a person's disagreement with himself can be seen in the example of existential frustration, meaningful emptiness, which is the main idea of existential psychology. Has a meaningful void, a vacuum appeared in a person, love for life, striving for a goal, activity fades, numbness, emotional coldness, indifference appear, instability in behavior appears, and even harm to one's health. It is the basis for changing the attitude to the negative side. And this has its own psychophysiological basis.

Psychophysiology is interconnected with neuropsychology - it is a field of psychological science that has developed at the intersection of psychology, medicine (neurosurgery, neurology), physiology and aims to study the brain mechanisms of higher mental functions based on the materials of local lesions of the brain.

The theoretical basis of neuropsychology is the theory of systematic dynamic localization of mental processes developed by A.R. Luria. However, in the last 10 years, new methods (including computed tomography) have appeared that allow us to examine the brain localization of higher mental functions in healthy people. Thus, modern neuropsychology,

taking the full scope of its problems, is aimed at studying the brain organization of mental activity not only in pathology, but also in the norm.

**Literature analysis.** For many years, psychophysiology was completely identified with the physiology of higher nervous activity (ONF), because the concept of type introduced by I.P. Pavlov was equal to the concept of "mental activity". The sound methodology and wealth of experimental methods of ONF physiology had a decisive influence on research in the field of physiological foundations of human behavior, but hindered the development of research that did not fit into the "Procrustean bed" of ONF physiology. In this regard, problems have arisen that require the expansion of the traditional rules of ONF physiology and the development of new theoretical and experimental paradigms. [1. 3]

Psychophysiology or psychological physiology is a scientific discipline that arose at the intersection of psychology and physiology, and the subject of its study is the physiological basis of mental activity and human behavior. The term "psychophysiology" was proposed by the French philosopher N. Massias around 1830 and was initially used to refer to a wide range of psychological research based on precise objective physiological methods (I. Muller, E.G. Weber, G.T. Fechner, G. Helmholtz and others.).[1. 4 ]

Within the framework of psychophysiology, separate directions are distinguished:

- psychophysiology of sensory organs;
- psychophysiology of movement organization;
- psychophysiology of memory and learning;
- psychophysiology of speech;
- psychophysiology of motivation and emotions, etc.;
- differential psychophysiology, which studies the physiological basis of individual mental differences.

Physiological psychology, which is closest to psychophysiology, is a branch of psychology that studies the physiological mechanisms of psychological activity from the lowest to the highest level of organization. This science emerged as a part of experimental psychology at the end of the 19th century. The term "physiological psychology" was introduced by W. Wundt to refer to psychological studies that derive research methods and results from human physiology.

Separation of psychophysiology as an independent science compared to physiological psychology was carried out by A.R. Luria according to his definition, psychophysiology is the physiology of integrated forms of mental activity; it arose as a result of the need to explain mental phenomena with the help of physiological processes, and therefore it compares complex forms of human behavioral characteristics with physiological processes of varying degrees of complexity. [1. 4]

Psychophysiology is interconnected with neuropsychology - a field of psychological science developed at the intersection of psychology, neurosurgical medicine, neurology, physiology and aimed at studying the brain mechanisms of higher mental functions based on the materials of local lesions of the brain. The theoretical basis of neuropsychology is the theory of systematic dynamic localization of mental processes developed by A.R. Luria. However, in recent decades, new techniques have emerged, including computed tomography, which allow us to examine the brain localization of higher mental functions in healthy individuals. Thus,

modern neuropsychology, accepting its problems in full, aims to study the organization of mental activity by the brain not only in pathology, but also in the norm.

For many years, psychophysiology was fully studied with the physiology of higher nervous activity (ONF), because the concept of ONF, introduced by I.P. Pavlov, was equivalent to the concept of "mental activity". The wealth of sound methodology and experimental techniques in ONF physiology has had a decisive impact on research into the physiological foundations of human behavior, but has slowed down the development of non-Procrustean research. Bed of ONF Physiology".

According to A. V. Petrovsky (1967), there was actually a tendency to destroy psychology and replace it with the Pavlovian physiology of DNA. With the rapid development of new techniques of physiological experiments, the field of experimental studies of the brain mechanisms of the psyche and behavior of humans and animals began to expand.

I.M. Sechenov considered the psychic feeling as an integral element of the internal structure of the reflex, firmly connected the concept of the psyche with the reflex, and justified the fact that it is impossible to separate the psyche from the reflex activity. In the scientific activity of I.P. Pavlov, the school of studying the reflex activity of the brain aimed at deep theoretical and experimental development.

Modern options for solving the psychophysiological problem can be as follows:

- Physiological activity of the brain is the same as mental physiology. Currently, this point of view is formed as a peculiarity of the psyche, not to any physiological activity, but only to the processes of higher nervous activity. Here, the psyche appears as a separate aspect, a special property of the physiological processes of the brain or the processes of higher nervous activity;

- Mental - a separate (highest) class or type of nervous processes that have properties that are not common to all other processes in the nervous system, including DNA processes. Psyche - special (psycho-neural) processes related to the reflection of objective reality and distinguished by a subjective component (the existence of internal images and their experience);

- Mental, although it depends on the physiological (higher nervous system) activity of the brain, nevertheless, it is not the same as it.

None of these solutions have been universally accepted, and work in this direction continues.[1.7-12]

The main component of the behavior model used by P. V. Simonov was related to the information theory of emotions developed by him (1975, 1981, 1987). According to this theory, emotion is the result of the interaction of two factors: the strength and quality of the current need (motive) and the subjective assessment of the possibility of satisfying this need (probability).

Behavior is a form of activity that changes the probability and duration of the subject's contact with an external object that can satisfy the needs of a person. Simonov shows the characteristics of various brain structures (frontal cortex, hippocampus and hypothalamus) that organize behavior. He emphasizes that the characteristics of the interaction between these structures in the process of organizing behavior can be directly related to temperament.

In the late 1980s, in order to formulate a new strategy for studying the nature of individual psychological differences between people, V.M. Rusalov developed a questionnaire-

type technique for assessing the leading parameters of temperament - the Temperament Structure Questionnaire (OST). The eight-dimensional structure of temperament proposed by him includes the following parameters:

social activity, social plasticity, social speed, social sensitivity, subject freedom, subject plasticity, subject speed, subject sensitivity. As a theoretical basis for this development, Rusalov used the concept of systematic organization of brain activity proposed by P.K. Anokhin. According to this concept, human behavior is the result of interaction between the organism and the environment and is a sequence (continuity) of behavior. Each such act is organized and implemented as a system consisting of four blocks:

- afferent synthesis;
- decision-making (formulating the program and receiving the result of the action);
- performing an action;
- feedback result parameters that provide a predicted and realistic comparison.

These blocks form a universal functional mechanism that is the basis of any activity and behavior.

Mood disorders are a group of clinical conditions characterized by disturbances in mental state, loss of ability to control one's emotions, and subjective feelings of severe distress. Decreased energy and interest in life, feeling of guilt in patients with depressive mood; when necessary, they have difficulty concentrating, lose their appetite, express thoughts about death and suicide.

The main distinguishing features of depression are mood and affect disturbances, where mood describes an internal emotional state and affect is its external expression. Excited patients show spaciousness, flight of ideas, sleep time is shortened, self-esteem and grandiose ideas are observed.

The main mechanism of depression is a mismatch in the activation of the frontal and posterior brain regions. The etiology of depression, like schizophrenia, remains unknown. Dysregulation of the biogenic amine system plays a major role in the development of depression. Increased activation of cortical areas that regulate negative emotions and, accordingly, decreased activation of areas associated with the regulation of positive emotions are found in patients suffering from depression.

In the 19th century, neurologists stated that a stroke in the left hemisphere is accompanied by a depressed mood of the patient, while in the right, on the contrary, the mood increases, euphoria and hypomania, sometimes inappropriate behavior and stupidity appear. This shows that the left hemisphere is associated with positive emotions, and the right hemisphere with negative ones.

The correlation between the relationship between the right frontal area and other parts of the brain, which regulates negative emotions, ends with a decrease in reactivity in the alpha rhythm range, as well as an increase in theta rhythm.

In general, every person is constantly accumulating internal psychic energy, which must be spent through the channel of sexual and social communication in the form of aggression and sexuality. Unexpended energy causes individual neuroses or social neuroses. Both types of neurosis are dangerous for human health and social stability. Therefore, it is important for a person to periodically release accumulated aggression and relieve mental tension. The long-term accumulation of energy can cause it to turn into violent volcanic eruptions one day. In



order to alleviate mental tension, it is important for a person to take time for himself, to take care of himself, to create an opportunity for cultural recreation, to participate in public holiday events and public work activities.

In psychology, there is a theory of "locus of control" related to a person's self-control, according to which each person has two types of responsibility. The first type of responsibility is such that a person recognizes only himself as the cause and product of all events that occur in his life. These are internals, they are characterized by an excess of self-confidence, determination to achieve a goal, a tendency to self-analysis, openness to communication, kindness to people and independence. The second type of responsibility is characteristic of externals, who believe that the cause of all events and events is external factors, other people, they do not believe in their own capabilities, postpone their goals for unclear deadlines, are overly excited, suspicious, conformist. , are characterized by their aggressiveness and tendency to heavy mental mood. Externals are also able to perform their jobs successfully under strict rules, but show the characteristic of performing well under the direction of other people.

**Research methodology.** According to D. Rotter, an American scientist who introduced the concept of "locus of control" into science, children who are taught to take responsibility rarely have cases of anxiety, neuroticism, and conformism. They are ready for life, active, independent thinkers. They also have a high sense of self-respect, which does not prevent them from living in harmony with others. Therefore, in educational institutions where the important stage of socialization takes place, it is necessary to give young people more initiative, to create conditions for independent thinking and feeling of freedom, and this is the basis of today's policy. Based on this, we conducted a questionnaire to determine the level of locus of control in young students. I and IV year students of psychology department took part in the questionnaire. The reason for choosing the respondents in this way is to study the different aspects of the attitudes of the students who have just got used to the higher education institution and the students of the graduate course towards life, work, family and other people.

COURSE	EKSTERNAL		INTERNAL	
	Boys	Girls	Boys	Girls
I	2 6 %	10 27 %	20 53 %	5 14 %
IV	3 11 %	10 34 %	7 26 %	8 29 %

**Results.** 45% of graduate students are external students, 34% of them are girls, only 11% are boys, and the remaining 55% are internal students, 26% of them are boys and 29% are girls. We are also satisfied with the results of first-year students. Because 67% of the students who have just started to adapt to the university are internals. 53% of them are in the defense services of our country and are characterized by the fact that they are young people with a lot of life experience. Out of 33% of external youth, only 6% are boys, and the remaining 27% are girls.

**Conclusion.** The sooner a person realizes that it is up to him to realize his identity, the more deeply he looks at life and sets more important goals for himself. In raising young people, it is important to predict that they will achieve psychological maturity by instilling feelings of self-awareness in their psyche. This feeling is not a biological phenomenon, but a social phenomenon. Because this feeling grows in the process of spiritual formation of a person. Since the mental and physical condition of a person are related to each other, let's first of all give spiritual food to our nerves. Let's act only with common sense in situations of mental exhaustion and stress. Let's learn how to manage emotions. Let's be sincere and courteous in dealing with people. Let's learn to listen to the thoughts of our interlocutor with an open face. Let's learn to forgive even the shortcomings of our loved ones and acquaintances. Let's try to see their best side. Let's learn to always believe in goodness, the future, and success.

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