



THE IMPORTANCE OF NEUROPHYSIOLOGICAL DATA IN PSYCHOLOGY

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Abstract: This thesis highlights the role and importance of neurophysiological data in psychology. The biological basis of mental processes in the brain, the functioning of the nervous system and its impact on human mental states are analyzed. The functional significance of brain regions, neurophysiological mechanisms of mental disorders, diagnostic and therapeutic approaches are considered in detail. The application of neurophysiological approaches in educational and developmental psychology, their role in developing individual approaches and pedagogical strategies are also revealed. The conclusion substantiates the relevance of interdisciplinary integration and the need for a modern psychologist to have neurobiological knowledge. The work has scientific, theoretical and practical significance and can be an important methodological resource in psychology education.

Key words: Psychology, neurophysiology, mozgovaya deyatelnost, psychic processes, diagnostics, therapy, development, emotions, neuropsychology.

Introduction. Psychology studies the processes associated with human mental states, behavior, emotions, and consciousness. Neurophysiology studies the nervous system basis of these processes. These two disciplines are closely related. Modern psychology, especially in the areas of cognitive psychology, clinical psychology, neuropsychology, and developmental psychology, cannot conduct full-fledged research without neurophysiological data. For example, the emergence of emotions, stress states, or mental disorders have a neurological basis. The integration of psychology and neurophysiology helps to deeply analyze mental states.

Main part. It is known that the development of science, and as a result of it, social progress, is difficult to imagine without scientific research methods. Their place is of great importance in the fields of social and humanitarian sciences, especially in psychology and sociology. First of all, this is due to the abundance of scientific research methods in these sciences, and the second reason is explained by the direct and indirect proximity, even specificity, of psychological and sociological knowledge to man, his thoughts and relationships. What is the factor of the rapid development of these sciences today!? Not only that, psychological and sociological knowledge is increasingly entering our lives. Departments and faculties specializing in these sciences are being opened in higher educational institutions, books are being published, periodicals are being published, special programs are being prepared and broadcast on radio and television. The recent decision of the government of our country on the establishment of the University of Psychology can also be cited as an example. According to him, a scientific research institute in the field also operates under this educational institution. It is very good to have such a center, because whether we like it or not, today every



educational institution, every sociologist and psychologist organizes their activities in their own way; simply put, such "frying in their own oil" should not last long, a system should be created in this area as well, so that the effectiveness of our activities is high!

Now let's talk about the main concepts in the subject - methodology and method. Usually, methodology is used in two different meanings: in the sense of a set of methods and an algorithm, conditions for applying a particular method. Its lexical meaning is exactly the same: the basis from which it appeared - when translated from ancient Greek - means "the path of research, theory, doctrine". We can say that it is a set of methods that help to know the world from a practical and theoretical perspective. So, if methodology is a set of methods, then a method is an algorithm of methods put into a system!?! In a broad sense, methodology is a system of tools and principles for organizing theoretical and practical activities. Therefore, methodology is inherent not only in scientific research work, but also in any activity, such as pedagogical, political, managerial. In a word, methodology, including methods, arose from the need for a person to facilitate his own work. This definition expresses the historical-philosophical essence of the phenomenon we are considering. In order for my thoughts to be understandable and complete, I have provided general development

Results and discussion: Mental processes - perception, thinking, memory, attention, emotions - are based on brain activity. Each of the parts of the brain performs certain mental functions: Prefrontal cortex - thinking, planning, moral judgment, decision-making. Hippocampus - memory formation, learning. Amygdala - reactions related to emotions, especially fear and anxiety. Thalamus and hypothalamus: Homeostasis - control of emotions and transmission of sensory signals. The study of these functions through neurophysiological methods (EEG, MRI, PET) clarifies psychological analysis. Developmental psychology studies the mental growth of children and adolescents. Brain development is crucial in this process. Neuroplasticity - the connections between brain neurons change through experience. This is of great importance in the educational process. Conditions such as dyslexia, autism, attention deficit hyperactivity disorder (ADHD) have a neurophysiological basis, and neurobiological approaches are important in their early detection and psychological support. The fact that each child's brain activity is different indicates the need to organize educational methods based on a differentiated approach.

Psychological well-being, or resilience, or the ability to withstand and recover from adversity, is rapidly and increasingly being discussed in research. Research shows that resilience is associated with better overall functioning and less psychiatric illness. In addition, resilient people often use adaptive coping strategies when faced with stress and have a higher level of coping skills despite suffering from difficult life circumstances.

Conclusion. Neurophysiological data allow for the scientific substantiation, clarification and effective application of the science of psychology in practice. Neurobiological knowledge plays an important role in the professional training of a psychologist. Modern psychology is developing in close connection with informatics, biology, medicine and technology. In the future, psychological approaches will become more interactive and individualized with the help of artificial intelligence and neurotechnologies. Thus, the neurophysiological approach is the main scientific basis that strengthens the theory and practice of psychology.

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