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PSYCHIC ACTIVITY AS A SUBJECT OF EXPERIMENTAL RESEARCH

The article is devoted to the peculiarities of the study of mental activity in a psychological experiment. Presented by categorizing the concept of mental activity. The directions of the operationalization of the concept in the experiment, in accordance with the levels of mental reflection. The ways of implementing a systematic approach to the study of the mechanisms of the psyche based on the analysis of the interaction of mental processes.

Key words: *mental activity; categorization of concept; operationalization; the levels of mental reflection; systematic approach.*

One of the latest trends in the current development of experimental psychology is the complexity of the subject of empirical research. This approach aims to increase knowledge about the nature of mental and its practical results are an important resource for the efficient operation of the individual in different spheres of human existence. This necessitates the use of an in-depth review of the experimental paradigm in the study of the mind.

Historical aspects of changing views on the subject of psychology argue that the main issue of scientific psychology is that, and how it should be studied. Scientists considered as a subject of human mental activity (B. Lomov, V. Mazilov, V. Tatenko et al.). B. Lomov concept of mental activity is determined through a special structure of mental processes that characterize a human activity and are the subject of research in psychological science [1].

The second, more difficult is the question of the method of the study of mind, so you can experiment on the basis of the operational definition of mental activity. Different views of scientists on the advantages and limitations of experimentation in psychology presented

in scientific papers of A. Asmolov, F. Vasyliuk, V. Druzhynin, T. Kornilova, S. Maksymenko, E. Nosenko, S. Smirnov et al.

According F. Vasyliuk, «the primary function of the experimental method in the structure of the scientific concept is to bring the real object of study in accordance with the basic concept of the ideal object» [2, p. 86]. However, the experiment involves operationalization of the construct of psychological-based variables are to be measured, and the results should be consistent with the principle of representation, that apply to the general population. From this perspective, common objects can not serve as variables in the experimental model.

The purpose of this paper is to determine the characteristics of the study of mental activity in an experimental study.

Consideration of mental activity as a subject of experimental research involves, first, the introduction of the concept of categorization, its representation in the other categories that reveal its most essential properties and set the search direction researcher. As an initial, basic category most associated with the notion of mental activity and better understand its essence, the concepts of interaction, psyche, reflection, activity, activity.

Interaction is a common form of relationship phenomena, manifested in their mutual changes and creates a channel between them. Because of this there is some new integrity, a new system that can be short-term or stable [3, p. 157–158]. Interaction with the environment systems with the psyche is specific in nature. On this occasion, M. Zabrodin says: «... if the body operates, that somehow behaves differently than ordinary physical body, there is «something» that makes you do it differently – that it is the psychic reality» [4, p. 8].

The ability to feel and ability to interact with the environment is a basic fundamental quality of living beings. These qualities form a unity that is inherent mentality and action of each other, hence the need to study them from both sides: as objects, observed from outside and how internal subjective states. This provision has been one of the main explanatory principles in the natural sciences and psychology.

The psyche is in some respects from the system and the environment. It reflects the conditions surrounding the body, speech, therefore, control the movements and actions – as reflectance and regulatory functions of the psyche is the main (B. Anan'ev, A. Leontiev, B. Lomov, S. Rubinstein, I. Sechenov et al.). In the

works of I. Sechenov sensation and perception are considered as «fragments of reality», the samples generated from the reflex activity of the brain. As the B. Lomov, «if the mind is not carried out the functions of the display environment and regulation of behavior, it would be just useless if the behavior is not necessarily included these features, it could not be an adequate environment. Hence the need to consider behavioral act and included in his mental processes as a whole system» [5, p. 118].

The nature of mental mapping is holistic and amodalnym because it does not consist of the amount of multi-level and riznomodalnyh processes. A. Leontiev pointed out that in the process inevitably arise all sorts of contradiction between different sensory modalities, the decisive role in addressing mental activity belongs. This makes the treatment of the subject to his inner world, try to update the mapping processes that go beyond basic sensory systems and not fall into the field of consciousness. Subjectivity display image due to the dependence of value sphere of man and its system settings – subjective attitudes that are not always perceived in nature [6, p. 46].

Recently, cognitive science have opened many events that generated by unconscious mechanisms of reflection and not yet received sufficient scientific justification is, in particular, the so-called phenomenon of «automatic thinking», «hidden memories», subliminal priming, «spontaneous attribution of qualities», hemisphere processing, creative insight, nonverbal communication and so on.

The highest form of reflection is anticipatory reflection, acting general and most important quality of mind. The ability of advanced display any external object precedes the act of direct interaction with it. This ability to display the result of self-motion reflectance of the object and the result of the accumulated experience of man and its assimilation. This postulate is consistent with the concept of K. Lewin, who believed that human behavior is just a function of the field; ideas G. Kostiuk on the process of self identity, based primarily on the phenomenon of self-development of the child, just inside of which are relevant constitutional, environmental and nurturing, well-known provisions of S. Rubinstein («external refracted through internal») and A. Leontiev («internal acts through external and thereby alters itself»). The latter provision was named of A. Asmolova formula activity in the analysis of the theory of activity at this stage [7].

Thus, the product of mental reflection is at the intersection of two causal series: how external influences determination and self-movement of the object. Reflection is a form of resolving the contradiction between these two types of conditionality by conversion factors of external influences in the very nature of the object. System quality of this process is that the separated objects form a new integrity through their *vzayemovidobrazhennya* each other. The constructive role of internal processes in any human action causes the active nature of the higher, advancing forms of representation.

Various forms of active reflection form the basis for the development and complexity of the material world. Specificity of human action is that active movement is not only the executive but also the research function. A man provides for certain events, building images of the future, which determine its actual behavior. Therefore, the activity is a fundamental quality of mental, provides necessary direction in the future, regardless of the form of organization of living matter. Traditionally define two aspects of activity: specific, which indicates the quality characteristics of mental phenomena, and non-specific, describing manifestations own psyche as activity.

Based on the Investigation of the phylogenetic aspects of the psyche A. Leontiev had defined its objective criterion that indicates the ability of living organisms to respond to biologically neutral impacts that are sustainable because of biologically significant properties and, consequently, they are potential signals. This ability is active in nature, as it allows providing a biological outcome where conditions do not allow it to be implemented immediately, immediately. A. Leontiev was first proposed the concept that reveals the development of forms and levels of mental reflection as basic and more complex, including the development of human consciousness [6].

The development of the psyche in the phylogeny was always an active process activity of the body, based on anticipatory reflection of reality, and at higher levels of evolution was in direct exposure to the outside world with the goal of transformation. Mental evolution has produced the emergence of the phenomenon of human complexity and mental forms of ontogeny, based on the principle of anticipation. According to the latest scientific data, this unique capability is provided by a plot of the gene *h1F*, which

manages the development of the human brain and, according to scientists, goes back five million years.

Active transformation of reality is revealed in the psychological literature as «samoaktyvnist personality» (I. Bech, M. Boryshevsky) «nadsytuatyvna activity» (A. Petrovsky), «excessive activity» (R. Nemov, O. Dusavitsky), the most common feature of which is to move beyond the situation based on anticipatory reflection of reality.

The concept of activity is closely related to the concept of activity and is often identified with it. The concept of A. Leontiev main characteristics of the acts objectivity. But this concept is not limited to the fact focus on the objects of the external world, and provides for cultural goods, which stated publicly created a specific mode of action with him. Unlike animals, man masters the subject and nature as a measure of their own activity. According to A. Leontiev, activity paves the way for the development of the mind, which is the assertion of the primacy of activities in relation to mental reflection. This provision is the basis of an idea that inner mental activity formed on the outside and in this context has a similar structure.

The scientific controversy about this K. Abulkhanova-Slavskay noted the existence of such problems: «Where in functional terms may be specific to the regulatory function of the psyche, the psyche itself when removed from the activity?» [8, p. 240]. Further development of the theory of facilitated resolution of this conflict by describing the perspectives of the new approach, which highlights the problem of activity depending on the image. Preserving the integrity of the theory, A. Leontiev at the same time changes the whole direction of analyzing and justifying new methodological triad «image psychology – psychology activities – psychology of personality». The new concepts to the forefront the problem of activity depending on the image, and the process of building the image of scientists is seen as a distinct mental activity that has its own specifics.

Scientific views about the nature of mental activity undergo further development in modern science. As the famous Ukrainian scientist V. Tatenko, «... but today there are hardly two specialists, among whom there would be differences in the understanding of the essence and nature of mental» [9, p. 190]. Subject-genetic explanatory principle, introduced in national science Tatenko VO is based on the assumption that the role of regulating, organizing and

developing centers in the psyche can do just being in the process of constant change and development. Therefore, the subject of modern psychology researchers defined as a subject of mental activity, activities, mental life in ontogeny.

The most common definition of mental activity does not indicate that it includes all human activities, undertaken with the participation of consciousness. According to the definition of the concept of psychophysiological, mental human activity is largely due to the ability distraction from reality and the transition from immediate senses to the imaginary reality. It is this imaginary reality provided by the ability of the brain to anticipatory reflection of reality.

Consideration of mental activity as a regulator of the spiritual sense of human existence is defined by S. Rubinstein: «Mental activity as such, directly relates to the natural world and serves its functional aspect as a natural phenomenon. However, taking part in the regulation of individual action, expressing their needs, interests, relationship to the world, it already appears in another capacity – as a mental activity as consciousness, which involves treatment of the subject to objective activity, or as a spiritual activity, has a particular spiritual sense» [10, p. 259–260].

Thus, the methodological meaning of mental activity in scientific psychology is primarily in relation to its consideration of stakeholder activity. Category entity discloses the quality of human activity, determines its position in the being and its ability to perform activities of self-determination and development. The principle activity of the stakeholder into account not only the presence of a particular individual motivation for the tasks facing him, but this attitude that initially it requires reflection, transformation of reality, finding their own solutions according to the specific conditions and circumstances of life, personal initiative, formulating and solving new creative challenges. The numerical psychological concept allows distinguishing the basic methodological principles of the subject's activity, which indicates the extent of its interaction with the environment and determined temporal position of the determinants of its current behavior. The most common sign of activity is going beyond a situation based on anticipatory reflection of reality.

Methodological basis for the study of mental activity is the provision of a systematic nature, because mental processes are carried out simultaneously at different levels and related relevant in

our psychology idea of multilevel regulation. This allows relating different in direction of research as part of a general pattern to establish the nature of the link between mental manifestations at different levels of mental reflection, clarification of the functional mechanisms of their interaction.

An important theoretical aspect of the study is to outline the structure and function of the phenomenon that defines its essence from the system approach, and allows operationalizing hypothesis in the planning of the experiment. The definition of mental activity as a reality accessible to scientific analysis provides guidance on its structure according to the levels of mental representation of reality.

Depending on the objectives and targets to be resolved in the normal course of business, B. Lomov identifies the level of mental reflection of man: subsensory, sensory-motor, perceptual, ideas, speech-intellectual. These levels interact with each other within a functional system. The system has a hierarchical structure, as reflected in the presence of complex integrative processes. Each of the levels of mental reflection includes not only the process of building a single image of an object or phenomenon, but also features regulating certain activities that are inherent in this level [5].

The study of mental activity in the present experiment provides priority teleological approach of causal and is the experimental task should not act as an incentive system, and as part of the life situation investigated. The ratio researcher studied acting as the determining force main experimental situation. The type of this relationship depends on the degree of manifestation of personality traits and mental abilities investigated and their impact on the reliability of experimental results. As the evidence, empirical research on the impact of the situation on human behavior in the psychodiagnostic study the validity of test results is determined by the type of subjective relations.

The principle of subject-subject relations, developed in science-based socio-psychological approach, actualized the attention of researchers on the social and psychological factors that affect the validity of the experiment (S. Rubinstein, B. Lomov, V. Druzhynin). The main objective of the psychological experiment by S. Rubinstein is to make available to objective observation significant features of the internal process. This requires the researcher creation of experimental conditions in which the external action would

adequately reflect the internal psychological meaning. To this end, the psychology of thinking was used methods of «thinking out loud» that communication researched and experimenter. In studies O. Tikhomirov and A. Brushlynsky this technique has been successfully applied to the analysis of procedural tumors in human thought based on different ways of partitioning the verbal protocols that answered theoretically grounded analysis of the thinking process units.

The principle of the experimental psychology provides versatile learning any mental phenomenon in dynamics. On the basis of this principle in the national psychology in recent years has formed and rapidly developing genetic modeling approach. By definition S. Maksymenko, its essence lies in the fact that the studied psychological phenomenon originally constructed as a model of a certain activity, and updated on specific ways of organizing human activity. This activity acts as a universal way of problem whose solution is provided by the functioning of the mental process. The criterion for psychological evaluation of the study is actually a measure of conformity carried out by the process of solving the problem of model [11].

The goal of any experiment is to identify certain patterns of behavior and maximum control adverse impact variables. However any experiment requires consideration of the mental processes and phenomena that are beyond the pilot scheme, the ability to interpret the results of the systematic position of the psyche, its variability and flexibility to determine the role of specific psychological phenomenon of cognitive activity and personal subject. In this regard, the analysis of the research results should take into account that the set of behavioral manifestations investigated may be due to a small amount of internal (mental) reasons. This principle is based on all methods of analysis of latent structures. The essence of the subject is not confined to the diversity of its external manifestations, and provides redundancy inherent mental formations and behavioral states. Therefore, in the interpretation of the data combined with schemes such explanations as deductive, genetic, functional and probability. Probabilistic scheme explanation is that interpretation although not formally derived from the data, but seems likely for certain values of the explanatory provisions.

Because the mental content of individual is behavior only partly determined by the possibility of knowing mental introspection

capabilities and modeling of the studied reality in the subjective experiment. By definition of V. Druzhynin empirical an activity subject to the results of the study – the inverse relationship between the complexity of psychic reality that is studied, and the «power» of the scale by which the data are interpreted. Higher levels of mental characterized by the following features: unique, ie, the ability to produce unique products and behavior (creativity), spontaneous activity, ie the ability to go beyond the situation «here and now» and adjust actions based on prediction of future events, integrity, simplicity is the components, what is due to the conquest of lower level laws of functioning and development of the whole. Therefore, the more difficult is the level of mental reflection, the less accurately it can be measured.

If the level of the integrated personality researcher has to deal with a single unique entity at the level of personal qualities and system processes (intelligence, creativity) – with fuzzy classification and nominative scale values and benefits subjected ranking, ordinal scale and pseudometrics suitable for use at the level of primary research and secondary images [12, p. 284]. This law directs the researcher for the selection of research methods processes at different levels of mental reflection, if the study of sensory-perceptual level and the level representations are mainly standardized methodology is the study of higher levels involved projective methods that allow studying the mechanisms of unconscious mental processes.

Designated provisions define the most significant advantages of the concept of mental activity in the research paradigm. First, it allows you to study it as a reality that is available through the operationalization of scientific analysis in the experiment. Second, the determination of its structure can be presented according to the levels of mental representation of reality. Third, this approach causes an additional opportunity to implement a systematic approach to study the mechanism of mind based on the analysis of the interaction of mental processes.

REFERENCES

1. Ломов Б. Ф. Об исследовании законов психики / Б. Ф. Ломов // Психологический журнал. – 1982. – № 1. – С. 18–27.
2. Василюк Ф. Е. Методологический анализ в психологии / Ф. Е. Василюк. – М. : МГППУ; Смысл, 2002. – 240 с.

3. Корнилова Т. В. Методологические основы психологии / Т. В. Корнилова, С. Д. Смирнов. – СПб. : Питер, 2008. – 320 с.
4. Забродин Ю. М. Методологические проблемы психологического анализа и синтеза человеческой деятельности / Ю. М. Забродин // Вопросы кибернетики: Эффективность деятельности оператора. – М., 1982. – 329 с.
5. Ломов Б. Ф. Методологические и теоретические проблемы психологии / Б. Ф. Ломов. – М. : Наука, 1984. – 444 с.
6. Леонтьев А. Н. Проблемы развития психики / А. Н. Леонтьев. – М. : Изд-во МГУ, 1983. – 572 с.
7. Асмолов А. Г. По ту сторону сознания: Методологические проблемы неклассической психологии / А. Г. Асмолов. – М. : Смысл, 2002. – 480 с.
8. Абульханова-Славская К. А. О субъекте психической деятельности / К. А. Абульханова-Славская. – М. : Наука, 1973. – 288 с.
9. Татенко В. О. Соціальна психологія впливу : [моногр.] / В. О. Татенко – К. : Міленіум, 2008. – 216 с.
10. Рубинштейн С. Л. Проблемы общей психологии / С. Л. Рубинштейн / [отв. ред. Е. В. Шорохова]. – [2-е изд.]. – М. : Педагогика, 1976. – 416 с.
11. Максименко С. Д. Основи генетичної психології : [навч. посіб.] / С. Д. Максименко. – К. : НПП «Перспектива», 1998. – 220 с.
12. Дружинин В. Н. Экспериментальная психология : [учеб. для вузов] / В. Н. Дружинин. – СПб. : Питер, 2004. – 319 с.