

D. A. Nicolenko, Associate
Professor Of the Department
of Psychology and Pedagogics,
National Academy of Internal
Affairs, Ph.D. (Psychology)

PSYCHOLOGICAL PECULIARITIES OF OBSERVATION IN THE PROCESS OF ADVANCED REFLECTION OF REALITY

The article reveals the role of observation in the process of advanced reflection of reality as cognitive regulation process and the ability to make a decision and act in spatio-temporal advance.

Key words: *personality; cognitive activity; advanced reflection; observation.*

The problem of active, adequate and productive individual mastery of objective and subjective reality at the present stage of human development is closely linked to changes in psychological reflection caused by both external and internal conditions. Specialists in psychology known that the information received by a person from the outside world is not limited by directly received impressions. Our senses transmit sensations, and then they go through a long series of processes that provide complex analysis of the information received, the full display of properties of objects and phenomena, the selection of essential features and incorporating them into a system of categories. Only such a long way, which together with the vigorous activity of the senses includes proactive person, his previous experience and the leading role of language, which allows you to go beyond the direct information obtained and this process incorporates active, creative perception of external reality and it is a psychological basis for the creation of subjective image of the objective world, ie psychological foundation for the process of reflection, process of understanding reality.

Our investigations of peculiarities of human cognitive activity are based on the methodological and theoretical positions of L.S. Vygotsky, G.S. Kostyuk, S.L. Rubinstein about the unity of mind and action, B.G. Anan, V.G. Afanasyev, G.C. Kostyuk, S.D. Maksymenko about systematic approach to the study of personality, L.S. Vygotsky, P.P. Blonskii, O.M. Leontiev,

O.R. Luria, S.L. Rubinstein, B.M. Teplov, O.K. Tikhomirov about the study of cognitive processes in their relationship with each other and individual sphere of necessity and motivation, K.O. Abulkhanova-Slavskaoi, L.S. Vygotsky, O.N. Leontiev, S.L. Rubinstein about fundamental philosophical, psychological, educational ideas for the development of personality in activity, O.M. Leontiev, A. Maslow, K. Rogers about conditionality of self-actualization of personality in breadth and content of its activity, S.D. Maksymenko, V.O. Sukhomlinskiy about concepts of holistic approach to the full and harmonious development of personality, V.I. Barka, O.A. Mateyuk, B.M. Oleksiyenko, E.M. Potapchuk, O.D. Safin, O.V. Timchenko, M.I. Tomchuk about psychological characteristics of professional work in special circumstances.

Among recent studies of cognitive sphere and cognitive activities that were carried out by young Ukrainian scholars, it should be noted the works of T.R. Vornacheva, N.M. Davydyuk, L.L. Zherdetskaya, I.M. Zayarna, I.S. Litvinenko, I.M. Lyalyuk, N.M. Matejko, A.D. Tereshchuk etc.

However, as it was noted by academician S.D. Maksymenko, cognitive mental processes are not considered by absolute majority of theorists as components of personality that create a paradox and make the gap between the personality as it is and that who is understanding. Property of knowledge is based on informational component need, and thus there is an objective need to identify psychological structures, the effect of which provides the orientation of the subject and its interaction with the outside world. Knowledge is a function of personality's existence and it is a necessary condition for understanding its entirety [13].

So, search and disclosure of backbone, integration mechanisms of cognitive activity as human beings, features of cognitive processes, their relationship in the process of formation and development of personality in combination with the situation «gap» between the area of cognitive processes in which psychology has accumulated the largest empirical material and psychology of the individual determines the relevance of this problem.

Anticipation as cognitive and regulatory process and the ability to act and to take certain decisions on a particular space-time forestalling of expectations with respect to future events has been

one of the integrative psychological phenomena that provide the highest level of appropriate behavior and activity.

The essence of advanced reflection, as the highest form of adaptation, means that living systems are able to quickly reflect the processes of the environment that occur slowly. Therefore, based on the accumulation of advanced reflection and representation of reality, living systems, being one of the most complex integrated structures, safety prepared to appropriately conditioned, the most general properties of the world (NA Bernstein, PK Anokhin).

Legal versatility of anticipation is associated with the life value of the individual both as a reflection of the modern and the preservation of the past, and with all this, with active mastery of the future prospective.

At the beginning of any activity a person has a mental model of certain outcomes. Due to this anticipation may relate and apply to various aspects of life of the subject, which equally applies to future changes in environmental human reality and in changes of their social situation, certain rules of conduct, self-control and control over their own actions and actions of others.

V. Wundt argued that the possibility of anticipation arises from the synthesis of simple elements and mandatory mental effect on the synthesis of this «creative derivatives» [7].

Studies of anticipation in human ontogenesis are of special interest. As shown by genetic studies (J. Piaget, J. Bruner, A.V. Zaporozhets etc.), the formation and development of the ability to predict the course of events and act ahead of is a slow and inconsistent process. J. Bruner emphasized that it is necessary to examine more thoroughly the genesis of the development of the capacity for voluntary self-employment, which must include the processes of prediction [4]. A.Vallon noted that this spatio-temporal representation with verbal designation creates the conditions for the differentiation of space and time, separation of past, present and future. P. Fres commenting scientific observations of A. Dekroli and K. Degan indicates a mechanism for implementing the law on the basis of the sequence of polarization of the past and the future, reconstructing the past and predicting the future by forming a human time perspective and language development [17]. Piaget proposes to distinguish between intelligence, operating concepts of sensor-motor intelligence as fundamentally different. He classifies the images onto

reproductive, in which already known objects or events and anticipated images appear, in which people do not only recreates, but also provides a different precision events and phenomena not previously perceived [14]. With the accumulation of experience, these images become more differentiated. Along with this power of anticipation is growing: the time limits within which the more or less adequate anticipation, expanding, and the accuracy of anticipation rises. Efficient operating systems concepts in mental activity are impossible without reliance on memory processes. Saving the past experience and its systematization is a necessary condition to identify trends of certain events, thus anticipation as well. The forecasting of events, in part probably stands as one of the determinants of involuntary memory. Memorizing random events is possible without special mnemonic install; recreation of a random series of events is more dependent on the prediction strategy chosen by the subject. In this, series of their own predictions are remembered better and stronger than a series of random events; memorizing performance depends on whether or not the prediction coincides with the results. Prediction, anticipation plays an important role also in the process of reproduction of the material that has been stored in memory. It is as if the future is guiding the process of selection and organization of the stored information.

Anticipation plays a more important role in the process of thinking. Predicting the course of events, hypothesizing and planning of the individual in this case is based on the knowledge of the laws reported in aggregated form in signs and sign systems. Generalization and abstraction techniques of logic and accounting operations provide a new level of anticipation [12].

Anticipation based on outstripping work of the brain is a manifestation of the cognitive activity of the subject, which allows in response to stimuli that act at the present time to predict events that have not yet occurred, using the accumulated experience, and be prepared to meeting them. S.G. Hellershtein noted that no judgment, no act of mental activity is built anew each time, they bear the past. At the same time, the actions of a person display not only the stimulus in itself, but also the changes that are not fully crystallized in a distinct form in the surrounding reality, and which inform about themselves as subtle precursors [12]. B.G. Ananjev pointed to the natural evolutionary processes of cognitive and regulatory tumors in

humans, one of which is the development of perceptual and apperceptual apparatus of working activity. Accuracy and consistency of visual indications depend on the logic of hypotheses, generalized knowledge. Summarized and understood knowledge not only speeds up the process of distinguishing and recognizing objects, but also determines the accuracy of their results. In any generalization as in any hypothesis, there are special elements of anticipation [1].

Basically the anticipation provides the formation of goals, planning and programming of behavior (activities), it is included into the decision-making processes, into the current control and communication acts. Unity of cognitive and communicative functions of mind is manifested in anticipation effects in the most effective way.

Mental functions (cognitive, communicative and regulatory) are shown in the phenomenon of anticipation in inseparable unity that allows us to treat them as a system process that is integral characteristics of mental activity. S.J. Rubinstein pointed to the fact that the focus of action based on anticipation and implemented in accordance with the purpose, is the main manifestation of consciousness [13]. B.S. Ukrayintsev notes that any goal serves as a model of a desired future, which in its turn is based on past experience and promotes its action. It proposes to differentiate the two main phases in time deployment of goals: a goal-setting stage when the target comes from the past into the present and is projected into the future. Thus, it appears to be the inside reason of behavior change in the self-governing system. N. Wiener and J. Bigelow classified purposeful behavior of feedback into predictable and unpredictable. The authors believe that the person is released from the animal world at the expense of higher-order prediction [12]. Goal formation sums up the past history of self-regulating system and provides a synthesis of experience gained in its current trends and the identification of its operation. Furthermore, the goal formation is a step forward because the current trend of system operation combines its past with the future.

However, anticipation is not only a part of the process of thinking but is realized in the form of thinking. That anticipation can be incorporated into the structure of thinking and thinking, at the same time, could be included into the structure of anticipation. This

paradoxical phenomenon, at first glance, is possible due to multi level processes of anticipation. According to E.M. Surkov and B.F. Lomov there are at least five hierarchically accumulated levels of anticipation processes: sub-sensory, sensory-motor, perceptual, imaginable and linguistic and intellectual.

Each level has to solve its range of problems, all five levels are involved in any real activity and their ratio and the prevalence of certain of these tasks depend on this activity. Thus, the larger of the space-time continuum a particular activity takes place, the greater burden falls on the upper level anticipation.

The scientific approach to the study of prediction in human life is based on the provisions of the multidimensionality of mental processes, and multilevel hierarchy of mental phenomena, the high dynamic and ambiguous relationship between the level of mental reflection, the presence of systematic and productive factor or components, so that different mechanisms are combined in functionally integrated dynamic system; different ordering of human mental properties (different properties have different reasons); about the need of studying mental phenomena in their development.

Studying the problem of anticipation in terms of consistency and building the structure of mental processes in the human cognitive activity it possible to formulate a number of provisions that have theoretical and practical importance. First, at the present level of scientific knowledge anticipation should be seen as specific cognitive regulatory process, which is based on integrated mechanisms of the brainwork. Second, each of the five selected levels of anticipation is determined by a leading structured «link» and systematic mental process that provides a particular range of advanced effects. Thirdly, the breadth of the range of the potential anticipated processes, their effectiveness on one or the other criteria are always based on the analysis and synthesis of past experience, constantly comparing them with current events and, most importantly, on a differentiated approach to the selection of information from memory.

In this regard, the most essential characteristic of anticipation as the process should be considered not only its anticipatory and time effect, but also maximum elimination of uncertainty in the decision-making process. In other words, anticipation is not only space-time upfront, but some degree of completeness and accuracy of prediction. Anticipation effect is the result of most «determination

part» of the decision-making act and continuous refinement «of the probable part» in prediction.

As has been noted above, it is natural to raise the question of the formation and development of anticipation at all stages of personal development, of determination of certain integral components of psychological mechanisms of the functioning of advanced display, common patterns which provide the highest level of adequacy and performance behavior and activity.

Adequate representation of reality depends on the level of observation. Observation as a property of an individual is manifested in the ability to differentiate characteristic, essential, including subtle features of objects, events and processes. Observation may be regarded as qualitative indicator of the level of cognitive activity.

Attributive cognition, as S.D. Maksymenko noted, is caused by the necessity of the information component that defines the objective need of mental structures, the effect of which provides subject's orientation and its interaction with the outside world. Cognition is a function of the individual's existence. The need to interact with the outside world, to seek ways to create by means of conscious, purposeful transformation of his conditions for its existence and development leads to the emergence of human cognitive needs. Conditionality of human existence by its natural organization, on the one hand, and the mediation of his life by social conditions, on the other hand, could not be carried out only under instinctive reflex conditions of relations with the surrounding reality. Deliberate, purposeful activity is impossible without adequate knowledge about the properties of objects, events and relationships of surrounding world [13].

Observation as resulting monitoring process and integrative cognitive percept provides: 1. Adequate qualitative characteristics of mental images as objects, events and processes that appear in their essential integrity. 2. Semantic hierarchy reflection. 3. Schematic attributivity of reflection. 4. Creative Mobility of reflection and 5. Operational control of reflection and its result.

Disclosure of nature observation allows to consider new relationship at different levels of mental reflection in the formation of an optimal model of theoretical and practical human activity, through in-depth knowledge of essential attributes of objects, events and relationships, ability to differentiate, differentiate the

properties and qualities of cognizable objects, imagine, understand and predict their dynamics.

Despite the lack of a clear theoretical framework regarding the structure and consistency of mental phenomena, the structure and systematic observation are clearly manifested in its analysis of specific forms. Analysis of observation in various activities helps to reveal the structural components: 1. Genetically determined state of readiness of the subject to differentiate objects and phenomena of the objective reality by their vital signs during direct reflection 2. The ability to differentiate implicitly essential, sufficient and excellent quantitative and qualitative attributes of objects and phenomena that appear during the conduct and activities 3. The ability to control the relationships dynamics of essential, sufficient and distinctive signs according to the terms of the perception of objects, events and processes during their differentiation with respect to the purpose of specified activities.

Integrative nature of observation is an organic combination of all cognitive processes in displaying reality. In observation specific cognitive processes occur as a person's ability to target the surrounding reality distinction, meaningful perception of objects, phenomena and processes in dynamics, combining the experience of reflection of reality with the invariability of result of behavior and activity. Depending on the level and modalities of mental reflection it is possible to identify the levels of man's observation: sensory-perceptual, figurative and conceptually intellectual.

Observation as perceptual cognition appears to be the source of facts which are necessary for the understanding of certain objects. The transition from sensory, imaginative to intellectual reflection of reality is a higher level of analytical and synthetic activity of a human brain, the emergence of new qualitative features. Due to observation, in the process of thinking a person identifies some properties of things among other properties, abstracts some of their relationship from others, demarcates significant, important from the unimportant, minor. In this activity, the selected characteristics, properties, relationships of objects are grouped together and summarized; a deeper understanding of the perceived objects is carried out. Thought processes with real objects, due to observation, give a person an opportunity to reveal general in single, cognate the essence of things. While thinking, a person uses his own experience and the experience of others being recorded in the language. At the

same time, the language occurs not only as a means of exchange, but also as an immediate reality of thinking, as a means of its formation. Our studies of observation in cognitive activity point out to the central role of the speech component of observation as a purely human psychological phenomenon that provides the highest level of active adaptation to the existence in today's society. This language, as the second signal of objective reality, much broader reveals the properties of objects and phenomena than sensual experience. Creating a dynamic system of meaningful distinctions, embodied in the word, allows the entity to effectively use his system of concepts for the most appropriate range display of complex, changing attributes of the objects, events and relations between them in the process of learning and move from «spontaneous», involuntary remodeling of the material perceived to conscious, voluntary activity aimed at developing an adequate image of the stimulus.

Observation research (A.R. Luria, B.G. Anan, M.I. Zhinkin, G.S. Kostyuk, L.I. Prokoliyenko, L.P. Doblayev, V.I. Beltyukov, V.N. Nosulekko, J. Bruner, Charles Coffey, D. Folly, etc.) emphasizes the importance of cognitive semantic analysis of the process of action aimed at an object or phenomenon, the disclosure of the real picture of causal and dynamic connection between objects and events, genetic analysis, which reproduces the features of the development process, enabling to advance to the context reproduction of reality, sense representation and sense foundation of substantive realities, modeling of the near and far perspectives of subject in action, providing learning process with attributes of personhood.

Natural communication with human cognitive activity does not exhaust the content of the psychological observation. Observation integrates a display of individual and typological personality traits in different activities: perceptual, mnemonic, intellectual, linguistic, imaginative etc. Psychological characteristics of observation are organically connected with the needs, goals, and motives of an individual. Especially observation depends on the orientation of the individual, intensity and stability of characteristics of the individual. Interest, experience and knowledge of a person, their abilities, skills and habits to notice features in an environment, in professional activities differentiate people on observant and unobservant, those that do not even notice distinct features of reality

and their changes, do not notice their own mistakes, peculiarities in relationship to the them from other people.

So, consideration of the problem of anticipation in terms of structuring and systematic mental processes at different levels causes the necessity of in-depth disclosure of peculiarities of cognitive component of mental reflection on a personal level, allowing on the one hand, to overcome the narrow functionalism in understanding this phenomenon, on the second, to consider it as a essential factor to optimize professional actions of law enforcement.

Observation as a property of an individual involves an active role of an individual in the process of self-development through self-understanding certain events in their lives, in determining their subjective values, consolidating stale components in their behavior, changes in mental and spiritual life of man, becomes the defining component of effectiveness in the anticipatory reflection of reality.

REFERENCES

1. Ананьев Б. Г. О проблемах современного человекознания / Б. Г. Ананьев. – Л. : Изд-во ЛГУ, 1969. – С. 137.
2. Базилович Т. Ф. Системное исследование антиципации в структуре индивидуальности / Т. Ф. Базилович // Вопросы психологии. – 1988. – № 4. – С. 46–55.
3. Батраченко І. Г. Психологія розвитку антиципації людини / І. Г. Батраченко. – Д. : Вид-во ДДУ, 1996. – 204 с.
4. Бруннер Дж. Психология познания / Дж. Бруннер. – М. : Прогресс, 1977. – 285 с.
5. Валлон А. От действия к мысли / А. Валлон. – М. : Изд-во ИЛ, 1956. – 238 с.
6. Виннер Н. Кибернетика / Н. Виннер. – М. : Сов. Радио, 1968. – 326 с.
7. Вундт В. Основания физиологической психологии / В. Вундт. – СПб., 1880.
8. Возрастная и педагогическая психология : [учеб. для студ. пед. ин-тов] / Давыдов В. В., Драгунова Т. В., Ительсон Л. Б. и др. ; [под ред. А. В. Петровского]. – 2-е изд., испр. и доп. – М. : Просвещение, 1979. – 288 с.
9. Змановская Е. В. Девиантология (Психология отклоняющегося поведения) : [учеб. пособие для студ. высш.

учеб. заведений] / Е. В. Змановская. – [3-е изд., испр. и доп.]. – М. : Изд. центр «Академия», 2006. – 288 с.

10. Кон И. С. Психология юношеского возраста / И. С. Кон. – М. : Просвещение, 1979. – 212 с.

11. Костюк Г. С. Избранные психологические труды / Г. С. Костюк. – М. : Педагогика, 1988. – 304 с.

12. Ломов Б. Ф. Антиципация в структуре деятельности / Б. Ф. Ломов, Е. Н. Сурков. – М. : Наука, 1980. – 279 с.

13. Максименко С. Д. Генезис существования личности / С. Д. Максименко. – К. : Изд-во ООО «КММ», 2006. – 240 с.

14. Пиаже Ж. Антиципирующая деятельность / Ж. Пиаже // Экспериментальная психология / ред.-сост. П. Фресс, Ж. Пиаже. – М. : Прогресс. – Вып. 6. – С. 43–46.

15. Рубинштейн С. Л. Основы общей психологии / С. Л. Рубинштейн. – М. : Учпедгиз, 1946. – 720 с.

16. Українська психологія: сучасний потенціал : матеріали Четвертих Костюківських читань (Київ, 25 верес. 1996 р.) – у 3 т. – Т. 2 / Ред. кол. : І. Д. Бех, О. В. Киричук, А. А. Корнієнко, М. Г. Козак, М. В. Костицький, В. П. Лисенко, І. П. Маноха. – К. : Вид-во ДОК-К, 1996. – С. 136–145.

17. Экспериментальная психология / ред.-сост. П. Фресс, Ж. Пиаже. – М. : Прогресс, 1966. – 1978. – Вып. 6. – 430 с.