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DECISION-MAKING IN STRESSFUL COGNITIVE CONDITIONS AS A PSYCHOLOGICAL PROBLEM

*The article analyzes the scientific approaches to the problem of decision-making, highlights the basic psychological mechanisms of this process, presents analysis of decision-making process in stressful cognitive conditions in the total structure of action.*

The term "decision" in the scientific literature is considered in two contexts of meaning: as a result of certain processes (conclusion, a choice made), and as the process that leads to a particular result (decision). Psychological dictionary of A.V.Petrovsky, M.H.Yaroshevsky indicated that in psychology the decisions are considered as a process of formation of thinking operations that reduce the original uncertainty of the problem situation. During the decision there are the stages of search, adoption and implementation of decisions. Decision assessment is made on the parameters of its quality and efficiency, psychological and logical complexity.

Similarly, in a large psychological dictionary of B.H.Mescheryakova and V.P.Zinchenko is stated that in psychology the decision-making is traditionally considered as a stage of an act of volition related to the choice of a target and a mode of action. Productive decision-making process involves the emergence of new goals, evaluations, motivations, settings, meanings. In a large psychological encyclopedia the decision-making is reviewed in both the act of volition and activity-aspects, as an act of will, aimed to create a series of sequential actions in an uncertain environment to achieve the goal, which is based on the transformation of the information available. Thus, any purposeful activity originates in the decision-making.

Decision-making process begins with the selection or separation of the necessary information for decision, then the various alternative decisions are considered and compared, and a subjective selection of the most optimal of them is performed, then the perfect hypothesis of the ways of achieving goals is built, or a program of specific actions is created [11].

The term "decision-making" in the technological literature and documents has a quite specific meaning and a space-time definition: the decision-making considering departure, take-off on the runway during the running start, the landing on the final stretch of glide path, a change of the route at the destination airport during bad weather, and so on. The decision-making means the evaluation of the situation and a choice of the one of available options of action [2, p.100].

Thus, the "decision-making" means to choose the purpose and mode of action.

To determine the psychological content of the concept of "decision-making'' in stressful cognitive conditions" may also be appropriate to consider it in the context of the overall structure of action developed by H.O.Balom, that summarizes views at the nature of action of O.H.Asmolov, T.Herhey, E.I.Mashbyts, V.A.Romenets, S.L.Rubinstein, etc. [1]. The decision-making is a component (phase) in solving a particular problem, in the implementation of a certain action. Decision-making as a determinant of action has a persuasive function, which is reflected both in the initiation of action, and in support of its motion until a desired result (a target setting in the theory of O.H.Asmolov). Realizable goals that have a persuasive function are described as intentions. So this is the first feature of action in the decision-making concerning its determination.

The second feature concerns the mode of action, i.e., the procedures for its implementation. The mode of action can occur by the following successive operations: "start", "targeting" (cognitive and motivational phase), "completion" and "implementation" [1, p.42-49]. "Start" - an event that serves as a reason for the beginning of the action. In case of decision-making in difficult stressful conditions this can determinates by realization of the subject the need to define its own action algorithm, including the decision-making.

"Cognitive orientation phase" - a procedure, the main function of which is to form a signal of mismatch, i.e. a model that carries information about the differences between the actual and desired state of the situation, or the absence of such differences. This phase can also perform the function of forming the models of information about possible ways to overcome the mismatch between the actual and desired state of the situation. In the case of intense cognitive situations it may be the beginning of formation of the motivation of individual to meet the needs of decision-making, and also the beginning of searching for information considering achieving this (implementation plan).

   "Motivational orientation phase" - the operation, the main function of which is to set up the current system to perform certain consecutive operations (in the case of intense cognitive situations - consciously made choice by individual from the alternatives known to him). In the case of implementation of varying capabilities, i.e., if the individual has made a choice and he complies with it, then the decision-making happens and the motivational phase completes with the transition to the phase "completion". Otherwise - the motivational phase may also provide a model for the formation of a planned model for "implementation" of decision, that means, the model of such transaction execution that is initial, and takes part in its determination.

Phase of "implementation" - an operation that provides a transition from the current state of the situation to the right (desired). Here may occur a question: as about the mode of action, taken as a whole, it can also be said, that it provides a transition. H.O.Ball interprets this uncertainty as follows: "... implementation operations transform the object from the current state to desired on condition that the operating system is ready for implementation of such transfer; operations, prior to implementation in the way of action, provide appropriate training "[1, p.45]. So, it is a relevant individual's willingness to implement action (decision-making) in the intense cognitive conditions.

Procedure of "completion" - an operation that provides the formation of a signal about the completion of action. In our case, we can talk about the moment of decision-making, and as it is talked about decisions that are made in the lack of time, the precise wording is: a decision-making at this time. It is clear that with the emergence of new information that the individual will consider as new alternatives, the cycle of steps can be repeated.

Decision-making depends on the actualization of certain psychological mechanisms. In particular, the psychological vocabulary of A.V.Petrovsky and M.H.Yaroshevsky indicates that there are volitional, intellectual and emotional mechanisms. V.K.Kalin determines that the most important are the volitional, intellectual and emotional mechanisms, in particular, highlights, that in the process of decision-making, the volitional regulation is always connected with emotions that change in the first place, depending on the content and activity of reasons of purposeful activity and its performance, volitional regulation starts with the intellectual act - understanding of the problem situation [4, p.33]. T.V.Kornilova highlights the intellectual mechanisms on the basis of the research of intellectual human strategies during the decision-making under uncertainty [6].

Several researchers (I.Dzhanis, O.I.Larychev, L.Mann, S.B.Rebryk, Yu.K.Stryelkov, etc.) [2; 10] consider the decision-making as an emotionally intense cognitive process. They wanted to uncover the deepest psychological mechanisms of decisions that they associate with motivational conflict, a clash of emotively colored tendencies and emphasize the gentle shades of emotional human processes. They are worried why not all people are able to make decisions.

Decision-making in the context of mental activity of a pilot was considered in the works of D.N.Zavalishyna, B.F.Lomov, V.F.Rubahina etc. Scientists are of the opinion that to solve the most of the tasks required, a pilot needs not the memorized movements, hard logic, but the ability to perform a flexible mental activity. R.Dzhensen, Yu.P.Kondratenko believe that this activity is included in the system of motor processes, but "the cognitive professional mental ability allows to think some time before you perform a reaction". An important aspect of decision-making theory also is the prediction of results [5, p. 47-67].

Because of this, for further disclosure of the psychological mechanisms of individual's responsible decision-making it is appropriate to consider this process in the context of the theory of psychic turn that developed by the founder of Ukrainian psychology M.Ya.Hrot. The scientist defined the structure of psychic turn as the unit of human psychic activity in which he distinguished four phases [7, p. 51-52]: external impressions on the organism, or a moment of objective susceptibility, which corresponds to sensations as initial formations and representations, the concepts or idea as complicated psychic phenomena; processing of this external impression into the internal, or a moment of subjective susceptibility - the feeling of pleasure or pain, satisfaction and excitement; caused by this internal impression the same internal movement, or a moment of subjective activity - desire, wish, want; external movement of the organism toward the object, or a moment of objective activity - movements, actions, acts [7, p. 440]. The fundamental principle for M.Ya.Hrot is that any human activity is based on completing a full psychic turn through perception, emotions and feelings, thinking and volitional action. As the decision-making process is a psychic activity, the psychic turn can be considered as an important psychological condition, when at the end of the choice of alternatives a person takes a preliminary decision, then while getting additional information implements reflection, again considering new alternatives, compares and refines previous decision. This cycle can be repeated, occurred in a circle until a decision has been determined by a final, that becomes the basis for the behavior and actions of the individual. Thus, the decision-making process by individual in general takes place on the basis of a unit of a psychic activity (psychic turn), can be cyclical in nature, actualizing psychic functions such as perception, emotions, intellectual and volitional activities.

Analyzed model of action (decision-making) by H.O.Ball relates to reviewed earlier "psychic turn" by M.Ya.Hrot and can be the basis for the development of a methodological approach to the study of the problem of decision-making in stressful cognitive conditions.

Thus, the decision-making in stressful cognitive conditions is based on a psychic turn as a unit of the psychic activity, provided by the actualization of volitional, intellectual and emotional mechanisms, and is mediated by an appropriate level of personal readiness of an individual.

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