

New Research Approach: Cognitive Abilities of a person

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The process of knowledge always troubled philosophers. How can the knowledge, what are the mechanisms of the cognitive process? Answers to these questions are found in the writings of thinkers from ancient times to the present. Complicated by our cognitive activity. In general terms, focusing on the basic knowledge of the methods, it is possible to note the role of analysis, synthesis and interdisciplinary research the world around us. Thinking people moves from the study of static to dynamic, from the study to the structure, the structure of objects to study the emergence of structures. "The complexity to the world around us continuously growing, and with it grows and the need to understand what determines the behavior of complex systems." Accordingly, the change in the objects of study are transformed and methods.

As you know, V.Geyzenberg wrote that in the process of knowing the nature to answer our questions, but our answers depend not only on the device, but on our way to the question. The subject of asking questions is conducting a study on the basis of the paradigm, which operates in the period of his scientific activity. Educational opportunities are limited categorical apparatus of the subject, the methodology of this research paradigm.

As you know, the deterministic approach will solve the equations for the past and for the future. Prediction carried out with certain, accuracy. Accuracy, certainty, foresight: the characteristic properties of this paradigm. Classical thermodynamics in physics, the theory of natural selection entered into the science of probability, uncertainty, irreversibility, and the transition from low probability and greater collision reversibility and irreversibility, determinism and indeterminism. Problem solving is based on a linear approach.

According to Kant's ideas are not facts, feeling, and our own common sense - the whole system of our spiritual experience - is responsible for our scientific theories. "Reason is not draws its apriority knowledge of nature, and requires of her," is further developed in the theory of knowledge.

Von Forester said that the world around us, in the form in which we perceive it, is our invention, i.e., we do not discover the world, reflecting its our senses, and invent, design it according to their evolutionary and biological definition of the cognitive apparatus. Cognitive schemes streamline arrays of experimental data and the change in the course of the development of the cognitive process. The process of knowledge can be represented as a synthesis of the ideas of Kant and the evolutionary-biological human cognitive apparatus.

In response to this idea can be considered and the concept of autopoiesis. According to which "living systems - is to know the system, and life - is a process of learning and every act of knowledge creates a world", "we have only the world that we create together with other people, and that only love allows us to create this world."

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The modern world is characterized by complexity. The complexity of a multi-component system, which should be investigated by other methods based on different methodological settings. Along with the above categorical apparatus, the present, the world is characterized by complex structural concepts such as nonlinearity, uncertainty, lack of equilibrium, openness (various options for the future) .

Revealed the need for a new research approach, where concepts, concepts, models, formed one of the disciplines can be used in other disciplines. This interdisciplinary approach, studying the complexity of our reflected in the theory of self: organization and synergy. Solutions for many of today's problems, requires an interdisciplinary approach. For example, the solution of the environmental problems associated with the economy. Or, globalization is associated not only with economic, political problems. Global issues, along with the above, are associated with these aspects of human life as ethnic, psychological, social, etc. Cognition complexly organized objects is based on the techniques, methodologies, different from traditional methods. The object of study of contemporary epistemology are complex systems. Their study is based on the principles of complex thinking, the proposed E. Morenom . Accordingly, in a complex way of thinking , " the world is a game, and at the same time competitive, contradictory and additional , mutually agreed between order and disorder, between Regular and appropriate , on the one hand, and the uncertainties and contingencies on the other hand ... A complex cognitive thinking helps dialogic between definite and indefinite , separable and inseparable, logical and metalogical". Synergistic approach that studies the complex open systems , along with linear and nonlinear approaches introduced . These concepts show how to extend the cognitive capabilities of the subject and show the limitations of traditional approaches .

The synergistic approach is a manifestation of the creative possibilities of man, i.e., allows us to reinterpret, to see the new in the well-known phenomena. Synergetic itself , its definition - a new vision , a new understanding of the assessment of the interaction. In such different in nature, animate and inanimate matter synergistic approach allowed us to establish something in common. The processes of formation of new structures in open systems subject to general laws.

One of the features of a modern vision of the world is the paradigm of dynamic chaos. If, for classical and non-classical science, chaos passive, destructive, destructive principle, chaos final result of the collapse , the absolute uncertainty and non-constructive, the maximum of the entropy . In the synergy of multi-dimensional chaos, the material principle, which not only destroys but also itself being product destruction, contributes to the creation of the new . In the chaos there is order . Chaos is objective and necessary. Chaotic traffic includes order. Every complex must contain the chaos.

Common to all chaotic systems is highly sensitive to small changes in initial conditions. This dependence can be seen in weather forecasting. This fact leads to the " butterfly effect", when the slightest change in the initial conditions lead to unpredictable consequences. From this circumstance should anticipate a problem. In chaotic systems, the ability to predict future events is limited. However, if you have chance all the correlations between the future to the past are destroyed, i.e. no prediction is impossible.

Of philosophical reflection , points to the increasingly complex objective reality , a higher level of understanding of reality. Accordingly, the transformation of scientific, methodological approaches that characterize the complex thinking, the ability to see one in many respects, the new synthesis.

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