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EDITORIAL

In modern science, interest in multidisciplinary research has sharply increased, due to the" challenges " of modern reality, the complexity of information and communication processes, and changes in scientific paradigms. Currently, science is dominated by monodisciplinary research, limited by the object and means of knowledge of a particular scientific field. This leads to some fragmentation of scientific knowledge, which limits the construction of a complete picture of the object under study.

According To V.E. Klochko (2012), currently science acts as a monodiscipline, although it can no longer properly perform its social functions in the same form. However, modern sciences do not seek to change their classical subject fields and try to preserve their sovereignty. Science is faced with the most complex problems that require cooperation. Scientists will probably have to get used to the possibility of the existence of science in the form of dynamic communities focused on solving the nodal problems put forward by time (V.E. Klochko, 2012). Science is forced to rebuild itself, demonstrating its ability to self-organize, as proper open self-developing systems. The current global situation related to the challenges presented to the world by COVID-19 only confirms and strengthens these trends.

The need to restructure the science due to the fact that highly popular for its constructive dialogue monosciences that can generate such a knowledge which is beyond the boundaries of individual science. has appeared J. Piaget in 1972, wrote that in science "we should expect a higher stage – transdisciplinary, which is not limited to interdisciplinary relationships, and will place these relations within the global system without strict boundaries between disciplines" (J. Piaget, 1972).

According to G. Miller (2003), cognitive science was born as an interdisciplinary education that includes: psychology, philosophy, linguistics, anthropology, neuroscience, and computer science. At present, we can say that cognitive science, born in the middle of the last century, combining the Humanities and natural science, can be considered a science that meets the main trends of transdisciplinarity.

In recent years, researchers have begun to pay growing attention to the importance of human cognitive functions in understanding the subject and social world. In part, this shift in focus reflects changes in science, which is increasingly turning to a cognitive approach to explaining human behavior. The ability to perceive and recognize the psychological States of other people is the basis of the process of social interaction. As a rule, a person evaluates other people's actions not just as patterns of behavioral or verbal activity. Behavior rather acts as a key to understanding other people's desires, intentions, and beliefs. In real life, a person is constantly building cognitive models to understand and predict the behavior of other people, which include our knowledge of our own mental states and the mental states of other people. Understanding and predicting the behavior of other people is the basis of interaction, since cognitive models of human behavior are predictions about the possibilities of our interaction with the world.

The theory of Embodied Cognitive Science (P. Calvo, & T. Gomila, 2010; H.R. Maturana, F.J. Varela, 1987) has become popular in cognitive science, gaining the status of interdisciplinary knowledge and having a broad impact on the development of system concepts of self-organizing systems.

It is known that the subject of modern science is complex self-developing systems (H. Haken, 1995), which include a person, i.e. the logic of the development of scientific knowledge led to the discovery of new laws and the development of the further cycle of cognitive science. The well-developed and popular theory of self-organization was illustrated with natural science material (mainly from the fields of physics, chemistry, and mathematics). Its provisions were equally applicable to both social and psychological systems.

We are talking about cognitive science as an established phenomenon, the interdisciplinary context of which continues to require discussion. This raises the question of whether cognitive science has already

developed as a special “transdisciplinary science” with its own subject of research, its own research methods, its own methodology, its own research principles, and a well-established categorical apparatus that allows researchers to understand each other.

Cognitive science as a new interdisciplinary field is aimed at studying the dynamics of the formation of cognitive systems at different levels. It showed that many cognitive patterns discovered in certain disciplinary areas of knowledge can be applied to social and psychological systems.

Currently, there are signs of convergence between cognitive science and other technologies, which is expressed primarily in the expansion of interdisciplinary research related to the practical application of cognitive research. Traditionally, this is manifested in the study of technologies of human-computer interface, artificial intelligence systems, and mathematical pattern recognition. At the same time, there is a convergence of cognitive science with biotechnologies and nanotechnologies (B.M. Velichkovsky, 2008). All this allows us to say that cognitive research goes beyond the scope of laboratory study, being implemented not only in the usual areas of science and education, but also in media technologies, in technology development.

Articles aimed at studying the implementation of cognitive research in the field of science and educational practice are one of the most interesting aspects of IJCRSEE content.

The purpose of this special issue is to offer a new approach to the discussion and presentation of cognitive science today. The special issue is aimed at discussing the main trends in the development of cognitive science and research, sharing experience and results of scientific reflection. The journal provides an interdisciplinary platform for academic scientists, researchers, and academics to present and discuss current innovations, challenges, and pathways, as well as practical problems and solutions made in the field of cognitive science and research.

We are pleased to have engaged with authors and researchers from different countries, cultures, and spheres in the field of cognitive science and practice. This issue contains articles covering a fairly wide range of problems in cognitive science. We hope that the authors ‘ positions will attract the attention of specialists and get an impetus for further development of the problems of cognitive science.

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