INTERDISCIPLINARY POTENTIAL OF COGNITIVE SCIENCE

Bohdana Manchul

Assistant Professor,

Yuriy Fedkovych Chenrnivtsi National University,

Chernivtsi, Ukraine

.   .

.   ,   ,   ,

.

:   ,   ,   ,   .

Cognitive science is an interdisciplinary research area that integrates the theory of knowledge, cognitive psychology, neurophysiology, cognitive linguistic, philosophy and artificial intelligence theory. Cognitive science encompasses a wide range of issues relating to knowledge. Social and cultural factors, emotion, consciousness, animal intelligence, comparative and evolutionary approaches are often based on key philosophical conflicts. Another important issue related to the mind is quale which cognitive science is generally avoided. Discussion of this issue is sometimes limited to the celebration of quale as a philosophical discovery. However, some in cognitive science community believe that these topics are relevant and promote the importance of their study.

Interdisciplinary approach is also used in terms of computer models drawn from the theory of artificial intelligence and experimental methods drawn from psychology and physiology of higher nervous activity, to develop precise theories of the human brain. Such researches encourage further development of artificial intelligence with all the challenges it may provoke [1].

Cognitive science is one of the most influential interdisciplinary field of science, along with other various fields, including psychology, neuroscience, linguistics, philosophy of mind, computer science, anthropology, sociology and biology, it gives a new vision of the body-mind problem that has been one of the main topics for discussion among philosophers since R. Descartes' "cogito ergo sum". Cognitive science is unlike many other science tends to view the world outside the mind. Field studies of cognitive science generally compatible with the physical sciences and uses scientific methods and modeling, often comparing the output results of models with aspects of human behavior. There are some doubts whether a single cognitive science can answer questions concerning human mind or is it necessary to use an

interdisciplinary approach. Therefore many scientists and philosophers prefer to speak of cognitive science in the plural [3].

Many, but not all scientists who consider themselves "cognitivists" (not just in linguistic sense) have functional view on mind and believe that mental states are classified functionally. According to some versions of functionalism, not only man, but also systems of other animal species, alien life forms, or advanced computers/artificial intelligence can in principle have mental states.

Therefore the typical analysis of cognitive science span many levels of organization, from learning and decision to logic and planning; from neural circuitry to modular brain organization. The fundamental concept of cognitive science is that "thinking can best be understood in terms of representational structures in the mind and computational procedures that operate on those structures [2].

Bibliography

1. Miller G. The cognitive revolution: a historical perspective. – 2003.

2. Thagard P. Cognitive Science. // The Stanford Encyclopedia of Philosophy (Fall 2008 Edition), Edward N. Zalta (ed.).

3. Varela, F. J., Thompson, E., & Rosch, E. The embodied mind: cognitive science and human experience. Cambridge, Mass.: MIT Press. – 1991.