TRANSMISSION OF MEANING IN BRAIN VIA *QUALIA*

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Rezumat. *Lucrarea evidențiază o nouă corelație a percepției la nivel cerebral, oferind o relație între înțeles și respectiv noțiunea semantică de qualia așa cum acestea apar în modelele cibersemiotice de transmitere a informației. În acest scop am propus un nou model cibersemiotic care descrie legătura dintre qualia (realitatea conștienței) și realitatea fizică a creierului. Acest model are două caracteristici de apreciere a conștienței, una cantitativă (mărimea), determinată de cantitatea de informație care poate fi integrată (stocată) într-un cluster (complex) de elemente neuronale din creier, cealaltă calitativă (qualia), determinate de relațiile informaționale cauzale care se stabilesc între aceste elemente*.

Abstract. *The paper highlights a novel brain correlate of perception, providing a relationship between meaning and respectively the semantic notion of qualia as they appear in cybersemiotic models of information transmission. In this aim we propose a new cybersemiotic model which describes the connection between qualia (the reality of consciousness) and the physical reality of the brain. This model has two characteristics of appreciation of consciousness, one quantitative (the size), determined by the amount of information that can be integrated (stored) in a cluster (complex) of neural elements in the brain, the other qualitative (qualia), determined by causal informational relationships that are established between these elements.*

Keywords: neural networks, *qualia*, information, meaning, cybersemiotic.
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1. Introduction.

The scientific investigation of mental phenomena is still characterized by strong contradictions and controversies, despite remarkable advances in the cognitive sciences. How brain structures and neural circuits underlie symbolic meaning has recently been elucidated by neuropsychological and neurocomputational research. In this new perspective on cognition, cortical cell assemblies act as the cerebral basis for a wide range of higher cortical functions, including attention, meaning of concepts, sequences, goals, and even communicative social interaction. A special aspect in the examination of these cognitive actions is that of the way in which the meaning of an informational message is established in the brain. In other words, it is about the way in which the relationship between the concepts of information and meaning is transposed in

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