

The Principle of a Thought Formation: The Biological Base for a Thought

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Abstract : The thought is a process that underlies consciousness and cognition and understanding its origin and processes is a longstanding goal of many academic disciplines. By integrating over twenty novel ideas and hypotheses of this theoretical proposal, we can speculate that thought is an emergent property of coded neural events, translating the electro-chemical interactions of the body with its environment—the objects of sensory stimulation, X, and Y. The latter is a self-generated feedback entity, resulting from the arbitrary pattern of the motion of a body's motor repertory (M). A culmination of these neural events gives rise to a thought: a state of identity between an observed object X and a symbol Y. It manifests as a "state of awareness" or "state of knowing" and forms our perception of the physical world. The values of the variables of a construct—X (object), S1 (sense for the perception of X), Y (object), S2 (sense for perception of Y), and M (motor repertory that produces Y)—will specify the particular conscious percept at any given time. The proposed principle of interaction between the elements of a construct (X, Y, S1, S2, M) is universal and applies for all modes of communication (normal, deaf, blind, deaf and blind people) and for various language systems (Chinese, Italian, English, etc.). The particular arrangement of modalities of each of the three modules S1 (5 of 5), S2 (1 of 3), and M (3 of 3) defines a specific mode of communication. This multifaceted paradigm demonstrates a predetermined pattern of relationships between X, Y, and M that passes from generation to generation. The presented analysis of a cognitive experience encompasses the key elements of embodied cognition theories and unequivocally accords with the scientific interpretation of cognition as the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses, and cognition means thinking and awareness. By assembling the novel ideas presented in twelve sections, we can reveal that in the invisible "chaos", there is an order, a structure with landmarks and principles of operations and mental processes (thoughts) are physical and have a biological basis. This innovative proposal explains the phenomenon of mental imagery; give the first insight into the relationship between mental states and brain states, and support the notion that mind and body are inseparably connected. The findings of this theoretical proposal are supported by the current scientific data and are substantiated by the records of the evolution of language and human intelligence.

Keywords : agent, awareness, cognitive, element, experience, feedback, first person, imagery, language, mental, motor, object, sensory, symbol, thought

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