



Some Phenomenological Considerations in Computational Modeling of Analogy

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Abstract:

There are currently several models of the analogy process that have been implemented in many computer systems. Analogy is a process that we use daily in basic thinking and learning tasks, and is manifested through memories, expectations, and, in general, associations by similarities and differences. Using analogies is something as spontaneous and familiar as implicitly effective in our continuous and our everyday thinking processes. However, aiming to have a complete description of analogy process as humans use, it is not an easy task. In this sense, the simulation of analogy process by computational programs, in general, weakly accounts for its complexity.

Phenomenology can help us to unveil the presuppositions analogy operates with, by identifying and discovering the most original forms of objects constitution regarding their genetic origin in the passive (or precognitive) and active synthesis. Thus, genetic phenomenology distinguishes between active genesis, on the one hand, and passive genesis, on the other hand. In the former, the subject participates actively in the constitution of objects ranging from tools and utensils of daily living to systems of thought, artistic creations, mathematical theorems, or scientific theories.

Every active genesis presupposes in the subject a kind of passivity that affects it beforehand. This “passivity” does not mean inactivity, but it rather refers to the fact of being involuntarily affected by a variety of habits, for example, dispositions, thinking patterns, motivations, emotions, memories, traditions, and paradigms. Phenomenology of association considers the constitutive role of association syntheses which would be the analogical channels or basic elements of thinking generation by analogy.



Biography:

José Eduardo García Mendiola is completing his PhD at Institute of Philosophical Research in National Autonomous University of Mexico. His research topic is about computational modeling of analogical thinking and the ones related to philosophy of mind, logic and artificial intelligence. He has a master degree in philosophy and a bachelor in philosophy and mathematics as well. He is professor at University of Colima, Mexico.

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