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Multi-Dimensional Experience of Processing Textual and Visual Information: Case Study of Allocations to Places in the Mind's Eye Based on Individual's Semantic Knowledge Base

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Abstract : Whilst the relationship between scientific areas such as cognitive psychology, neurobiology and philosophy of mind has been emphasized in recent decades of scientific research, concepts and discoveries made in both fields overlap and complement each other in their quest for answers to similar questions. The object of the following case study is to describe, analyze and illustrate the nature and characteristics of a certain cognitive experience which appears to display features of synaesthesia, or rather high-level synaesthesia (ideasthesia). The following research has been conducted on the subject of two authors, monozygotic twins (both polysynaesthetes) experiencing involuntary associations of identical nature. Authors made attempts to identify which cognitive and conceptual dependencies may guide this experience. Operating on self-introduced nomenclature, the described phenomenon- multi-dimensional processing of textual and visual information- aims to define a relationship that involuntarily and immediately couples the content introduced by means of text or image a sensation of appearing in a certain place in the mind's eye. More precisely: (I) defining a concept introduced by means of textual content during activity of reading or writing, or (II) defining a concept introduced by means of visual content during activity of looking at image(s) with simultaneous sensation of being allocated to a given place in the mind's eye. A place can be then defined as a cognitive representation of a certain concept. During the activity of processing information, a person has an immediate and involuntary feel of appearing in a certain place themselves, just like a character of a story, 'observing' a venue or a scenery from one or more perspectives and angles. That forms a unique and unified experience, constituting a background mental landscape of text or image being looked at. We came to a conclusion that semantic allocations to a given place could be divided and classified into the categories and subcategories and are naturally linked with an individual's semantic knowledge-base. A place can be defined as a representation one's unique idea of a given concept that has been established in their semantic knowledge base. A multi-level structure of selectivity of places in the mind's eye, as a reaction to a given information (one stimuli), draws comparisons to structures and patterns found in botany. Double-flowered varieties of flowers and a whorl system (arrangement) which is characteristic to components of some flower species were given as an illustrative example. A composition of petals that fan out from one single point and wrap around a stem inspired an idea that, just like in nature, in philosophy of mind there are patterns driven by the logic specific to a given phenomenon. The study intertwines terms perceived through the philosophical lens, such as definition of meaning, subjectivity of meaning, mental atmosphere of places, and others. Analysis of this rare experience aims to contribute to constantly developing theoretical framework of the philosophy of mind and influence the way human semantic knowledge base and processing given content in terms of distinguishing between information and meaning is researched.

Keywords : information and meaning, information processing, mental atmosphere of places, patterns in nature, philosophy of mind, selectivity, semantic knowledge base, senses, synaesthesia
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