Lecture

Storage-independent memory of concepts

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Abstract

That memories in general and concepts in particular are represented in the brain by mnemonic traces, such as Hebbian neuronal circuits, is a nearly universal notion. Consequently, past and current models of memory, especially recognition memory, are based on the principle of “matching” external sensory inputs to stored representations of concepts. Yet a careful review of the literature on the effects of focal brain lesions on memory as well as the functional neuroimaging literature do not reveal any credible evidence in support of the notion of storage of concepts in the brain. On the contrary, the empirical data appear to favor the hypothesis, made popular some decades ago by Bartlett (1932) that at least episodic memories are not stored and retrieved but are created each time they emerge in consciousness. In this essay, having made the case for the lack of evidence for concept storage and having commented on some theoretical difficulties this notion entails, I discuss the possibility of a storage-free model of concept memory and draw the outline of its essential features.

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