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Conscious agent networks: Formal analysis and application to cognition

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Abstract

Networks of "conscious agents" (CAs) as defined by Hoffman and Prakash (Frontiers in Psychology 5, 577, 2014) are shown to provide a robust and intuitive representation of perceptual and cognitive processes in the context of the Interface Theory of Perception (Hoffman, Singh and Prakash, Psychonomic Bulletin & Review 22, 1480-1506, 2015). The behavior of the simplest CA networks is analyzed exhaustively. The construction of short- and long-term memories and the implementation of attention, categorization and case-based planning are demonstrated. These results show

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