

Towards a Computational Model of Consciousness: Global Abstraction Workspace

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Abstract : We assume that conscious functions are implemented automatically. In other words that consciousness as well as the non-consciousness aspect of human thought, planning, and perception, are produced by biologically adaptive algorithms. We propose that the mechanisms of consciousness can be produced using similar adaptive algorithms to those executed by the mechanism. In this paper, we propose a computational model of consciousness, the "Global Abstraction Workspace" which is an internal environmental modelling perceived as a multi-agent system. This system is able to evolve and generate new data and processes as well as actions in the environment.

Keywords : artificial consciousness, cognitive architecture, global abstraction workspace, multi-agent system

Conference Title : ICCNN 2017 : International Conference on Cognition, Neuroscience and Neurocomputing

Conference Location : Singapore, SG

Conference Dates : January 08-09, 2017