MHP/RT: Model Human Processor with Real Time Constraints

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Abstract: We propose "Model Human Processor with Real Time Constraints" as a simulation model of human behavior selection. It stems on the successful simulation model of human information processing, Model Human Processor (Card, Moran, and Newell, 1983), and extends it by incorporating three theories, Maximum Satisfaction Architecture (MSA, presented at CogSci2007), Structured Meme Theory (SMT, presented at CogSci2008), and Brain Information Hydrodynamics (BIH, presented at CogSci2008). MSA, SMT and BIH deal with coordination of behavioral goals, utilization of long-term memory that works as an autonomous system, and a mechanism for synchronizing individual with environment, respectively. MHP/RT works as follows: 1) inputs information from environment and individual, 2) MHP/RT builds a cognitive frame in working memory, 3) resonates it with autonomous long-term memory, 4) maps the resonance on consciousness to form reduced representation of the input information, 5) predicts future cognitive frames to coordinate input and working memory.

http://staff.aist.go.jp/kitajima.muneo/organic-self-consistent-field-theory/index.html