A hybrid cognitive architecture based on the relationship between consciousness, memory and attention

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Abstract: To discern what characteristics a hybrid architecture should have to achieve the full range of human cognitive tasks, it might be helpful to explain the relationships between consciousness, memory and attention as accepted basic mechanisms. Consciousness would be a subjective awareness of momentary experience and also have the characteristics of an operating system performing control and consolidation information processing in comparison of memory and attention and three constructs could operate without each other. Mental architecture could be composed of hierarchical parallel processing, the recursive embedding of models, and the high-level model of the system itself. Modules as processors in the hybrid architecture both employ and are based on the relationship between consciousness, memory and attention in a basic common mechanism which should be well enough understood to be used in an explanation of mental architecture. Some theoretical and empirical evidence is instanced in the areas of metacognition and language processes.