

The multiplicity of mind

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Dual process theories have developed in parallel in several psychological literatures, notably those concerned with the study of learning, reasoning, decision making and social cognition. These theories seem to be related as they all contrast implicit cognitive processes (fast, unconscious, automatic) with explicit processes (slow, conscious, controlled) leading to some theorists to propose generic cognitive Systems 1 and 2 which underlie these dual process accounts. However, closer inspection suggests that while System 2 may be a coherent concept, System 1 is not. There are in fact a number of quite different forms of implicit cognition (for example, implicit learning, modular cognition, attentional processes, pragmatic retrieval processes, automated cognitive skills) which do not operate as a single system and do not share the same cognitive architecture or evolutionary history. The common factor to dual process theories is the presence of a single system of analytic thought, requiring central working memory resources, which may optionally intervene to alter default behaviours prompted by a variety of implicit cognitive systems.