

Constructive memory and imagining the future

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Abstract

Studies of memory have mainly focused on remembering the past, but an important function of memory is to allow individuals to simulate or imagine future scenarios. A rapidly growing number of studies have shown that simulating future events depends on much of the same neural and cognitive machinery as does remembering past events. To account for these findings, we have suggested the *constructive episodic simulation* hypothesis, which holds that simulation of future events requires a system that can draw on the past in a manner that flexibly extracts and re-combines elements of previous experiences, sometimes producing memory distortions that reflect the operation of adaptive processes. This talk considers both pitfalls and adaptive aspects of future event simulation in the context of research on planning, prediction, problem solving, mind wandering, prospective and retrospective memory, coping, and the interconnected set of brain regions known as the default network.