BRIEF SUMMARY

Schacter, D. L., Norman, K. A., & Koutstaal, W. (1998). The cognitive neuroscience of constructive memory. Annual Review of Psychology, 49, 289-318.

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Numerous empirical and theoretical observations point to the constructive nature of human memory. This paper reviews contemporary research pertaining to two major types of memory distortions that illustrate such constructive processes: (a) false recognition and (b) intrusions and confabulations. A general integrative framework that outlines the types of problems that the human memory system must solve in order to produce mainly accurate representations of past experience is first described. This constructive memory framework (CMF) emphasizes processes that operate at encoding (initially binding distributed features of an episode together as a coherent trace; ensuring sufficient pattern separation of similar episodes) and also at retrieval (formation of a sufficiently focused retrieval description with which to query memory; postretrieval monitoring and verification). The framework is applied to findings from four different areas of research: cognitive studies of young adults, neuropsychological investigations of brain-damaged patients, neuroimaging studies, and studies of cognitive aging.

KEYWORDS: false recognition, confabulation, memory disorders, medial temporal lobes, frontal lobes