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Semantic and Phonological False Memory: A Review of Theory and Data

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Abstract

Deese/Roediger/McDermott (DRM) list words can share either semantic relatedness or phonological resemblance with their critical distractor. We review three lines of evidence in which semantic and phonological DRM illusions have been compared: (a) studies in which the two illusions were tracked in populations with different semantic or surface memory abilities; (b) studies that investigated the effects of manipulations that target semantic content or surface content or both; and (c) studies that examined hybrid forms of the illusion in which there was both semantic and surface resemblance between false memories and actual experiences. The three lines of evidence showed that semantic and phonological DRM illusions display dissociative patterns in most instances, indicating that they are two distinct types of false memories. We also discussed how the two major theories of the DRM illusion, fuzzy-trace theory and the activation/monitoring framework, account for the underlying mechanisms for the semantic and phonological illusions.