The ability to recall scenes as a predictor of the quality of autobiographical memories.

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Neuropsychological damage to the hippocampal region or earlier in the ventral stream that results in the inability to recall a scene also results in amnesia. Scenes provide a layout for the contents of autobiographical memories and a fixed location for the person remembering them. In doing so, scenes increase a sense of reliving, vividness, and belief that an event occurred, which are three phenomenological properties that have long defined autobiographical memory. The degree to which a scene is recalled was therefore hypothesized to correlate positively with ratings of reliving, vividness, and belief in normal populations, and to explain more variance in multiple regressions than recalling the scene's contents. A lack of a scene was also hypothesized to underlie nonspecific (i.e., overgeneral) autobiographical memories. Participants rated the layout, content, and other properties of autobiographical memories. Correlational analyses in three studies (ns ~ 200) and a structural equation model for the combined studies provide strong support for the role of mental scene construction in an integrative neurocognitive approach to cognitive theory and to understanding clinical phenomena. In four additional studies (ns ~ 200 to 400), properties of scenes in one set of memories were correlated with these three phenomenological properties in different memories demonstrating that scene recall is a stable individual differences measure. Scene recall correlated in expected ways with other measures (e.g. more highly with episodic than semantic memory or spatial navigation) and standardized imagery tests. A newly devised Scene Recall Imagery Test (SRIT) has high reliability and good psychometric properties.

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