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## The Effects of Lapses of Sustained Attention on the Encoding of Episodic Memories


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Sustained attention, the self-maintenance of cognitive focus or vigilance, is an important factor in effectively accomplishing the various tasks of everyday life. To better understand the relationship between sustained attention and the formation of episodic memories, the current project sought to investigate fluctuations in a behavioral index of attention during a memory encoding task. Sixty healthy, young-adult subjects first undertook an incidental encoding phase in which a list of common words was presented, and a simple binary judgment was to be made for each word. The critical feature of this phase was an imbalance (90-10 split) regarding the correct judgement, which was designed to encourage subjects to sometimes rely on automatic processing. Fast response times on consecutive trials were used as an index of such lapses in sustained attention. A surprise memory test was then administered, in which subjects indicated whether or not words were previously encountered during the encoding phase. Memory test items associated with attentional lapses at encoding were contrasted with those items for which attentional focus appeared sustained. Importantly, the lapses gave rise to our predicted result of enhanced forgetting (i.e. lower hit rates). These results provide insight on how moment-by-moment fluctuations in attentional state can be informative about the quality of episodic memory encoding.