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Arousal, Encoding, And Intrusive Memories

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Abstract : Intrusive memories following a traumatic event are not uncommon. However, in some individuals, these memories become maladaptive and lead to prolonged stress reactions. A seminal model of PTSD explains that aberrant processing during trauma may lead to prolonged stress reactions and intrusive memories. This model explains that elevated arousal at the time of the trauma promotes data driven processing, leading to fragmented and intrusive memories. This study investigated the role of elevated arousal on the development of intrusive memories. We measured salivary markers of arousal and investigated what impact this had on data driven processing, memory fragmentation, and subsequently, the development of intrusive memories. We assessed 100 healthy participants to understand their processing style, arousal, and experience of intrusive memories. Participants were randomised to a control or experimental condition, the latter of which was designed to increase their arousal. Based on current theory, participants in the experimental condition were expected to engage in more data driven processing and experience more intrusive memories than participants in the control condition. This research aims to shed light on the mechanisms underlying the development of intrusive memories to illustrate ways in which therapeutic approaches for PTSD may be augmented for greater efficacy.

Keywords : stress, cortisol, SAA, PTSD, intrusive memories
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