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Examining Moral Injury using a Predictive Processing Framework

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Abstract

Moral injury describes the set of psychological symptoms resulting from traumatic experiences that violate one's moral presuppositions. Such disruption occurs when an individual encounters information from the environment that cannot be reconciled with the fundamental assumptions underlying their predictive models of the world. Examination of predictive models has been rapidly developing within cognitive science, with the predictive processing framework emerging as a central paradigm. Predictive processing entails estimations of sensory uncertainty scaffolded by previous predictions and modified by attention. This model describes cognition as seeking to minimize sensory prediction error using dynamic interactions between top-down and bottom-up processes. Therefore, the predictive processing framework may be fruitfully used to examine psychological changes related to moral injury. Towards this end, we will consider moral injury as a form of belief updating, dysregulation in precision estimates of predictive models, and a breakdown in what Ramstead et al. (2016) call 'regimes of shared attention.