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Proceedings of the Annual Meeting of the Cognitive Science Society

Title

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Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 41(0)

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Publication Date

2019

Peer reviewed

The impact of sequences on the learning of contingencies at UK traffic lights

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Abstract

Previous work has found that the contingencies experienced at UK traffic lights can affect drivers behavior potentially leading to risky driving. However, these studies did not account for the sequences experienced at traffic lights. This experiment seeks to rectify this. As with previous research we used an incidental go/no-go task in which colored shapes were stochastically predictive of whether a response was required. The stimuli encoded the contingencies of traffic lights and their appropriate response, for example, stimuli G was a go cue, mimicking the response to a green light. Crucially, cues were displayed in the sequences experienced at traffic lights. Supporting earlier work, the 50/50 cue that mimicked amber traffic lights was experienced as a go cue, and the stop cue that represented red lights was responded to as a neutral cue. The sequences seemed to enhance this pattern of learning with much larger effect sizes than previously found.