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Transfer of Learning-Guided Cognitive Control through Congruency Cues: a study involving two variants of Flanker task

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Abstract

Transfer of cognitive abilities has often been described in regard to Working Memory, while little has been said about Cognitive Control. Recent studies have proposed that congruency cues can be used to investigate learning-guided cognitive control adaptations in a trial-by-trial fashion during conflict tasks. In the present study, we employed congruency cues within an inducer/diagnostic paradigm to (1) induce a control learning between cue and string congruency in a Flanker task variant and (2) test whether this learning could transfer to a different Flanker variant. Results provided evidence that participants can learn to strategically employ congruency cues to adapt their cognitive control and that these learned control strategies/routines can be transferred to a very similar task variant (near transfer). Further experiments will be performed to explore the extent of this transfer.