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Strategy Inference and Switch Detection Method Generalizes to Category Learning

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Abstract

Lee, Gluck, and Walsh (2019) developed a series of Bayesian inference models that use multiple behavioral measures to infer the use and switching of strategies in a decision-making task. Their approach addresses common deficiencies in strategy inference, such as the assumption that participants use a single fixed strategy and the methodological reliance solely on decision outcomes to inform inference. These deficiencies are addressed by incorporating trial-level information processing data and by allowing switch points in strategy use throughout the experiment protocol. Here we evaluate the generalizability of this approach using data from a Brunswik face category learning experiment (Gluck, Staszewski, Richman, Simon, & Delahanty, 2001). Results support the cross-domain generalizability of the Bayesian inference models for inferring both strategy use and switching using multiple sources of behavior. We compare these results to the conclusions reached in the original research by Gluck et al. (2001).