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# Infants' evaluation of expected information gain in a gaze-contingent paradigm

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**Abstract**

Research on infants' observational behavior has predominantly focused on retrospective information gain, leaving the role of prospective evaluation of information gain unclear. We examined 12-month-olds' use of information sources in an eye-tracking study, where participants could use their gaze to 'shake' two out of three boxes to locate a hidden character through auditory cues. Across two pre-registered experiments, we manipulated the probability distributions for character locations to assess forward-looking exploratory strategies. Findings from Experiment 1 with a uniform distribution suggest that while infants learned task contingencies, their choices did not align with maximizing expected information gain, leaning instead towards confirmatory hypothesis testing. Experiment 2 employs a non-uniform probability distribution for character locations to rule out alternative explanations of Experiment 1. In this setup, one box pair provides more information gain, while the other provides confirmatory evidence. Data collection is in progress, results will be presented at the conference.



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