

# Patterns of information search in experience-based choice

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**Abstract:** In experience-based choice, outcomes of choice options are learned from experience. In laboratory paradigms simulating experience-based choice, participants learn about options via repeated sampling. Past research has revealed individual differences in sampling strategies (comprehensive vs. piecewise sampling). In the current study, we experimentally manipulated strategies to examine their effect on sampling effort and decision quality. Participants were presented with two virtual bags of numbered marbles and were asked to a) choose the bag containing the greater proportion of marbles with a specific target number (requiring tracking of proportions), or b) choose the bag containing marbles with the higher average number (requiring tracking of proportions and values). Sampling strategy (comprehensive vs. piecewise) was manipulated within-subjects. Piecewise sampling led to greater accuracy than comprehensive sampling in both tasks, despite lower sampling effort. These findings confirm the importance of strategies in experience-based choice and have implications for the design of effective decision aids.