

Task Representations, Strategy Variability and Base-Rate Neglect

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Abstract

A new model, called RCCL, explains the different ways in which people combine base-rate and case-specific cues to produce choice. The model makes use of the construct of task representations—the subset of features used to encode the task environment—and makes additional predictions regarding variability in choice over time. Experiment 1 tested 58 college-aged students in a problem-solving task and showed that task representations can be influenced by feedback from the environment, producing changes in base-rate and cue sensitivity. Experiment 2 tested 80 college-aged students in a delayed match-to-sample task and showed that variations in the format of a task can lead to different representations, which in turn produce very different base-rate and cue sensitivities. Moreover, both experiments find systematic variability in choice over time in ways predicted by the model.