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Task Diversity and Human Decision-Making: A Taxonomic View

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Abstract

Problem-solving and sequential decision-making research have a long-standing tradition of utilizing various tasks in experiments to gain insights into different aspects of human behavior. Choosing the right task for investigating these aspects is crucial since human solution approaches depend on features and dynamics of tasks. For a complete theory of sequential decision-making, we must consider this relationship between behavior and task features. We developed a taxonomy and identified nine structural task features that allow us to describe the relationship between tasks and the behavior in the tasks. We categorize sequential decision-making tasks and show how their features link to the demands on solution approaches that leverage their structure. We argue that this taxonomic view on tasks can guide research processes as it can help select the right task for a research question at hand and can be used to relate the results of behavioral studies to each other.