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Information Search in Decisions from Experience: Do Our Patterns of Sampling Influence Our Decisions?

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Abstract: Does the way we sample information from the environment influence the decisions we make, even when the information we obtain would otherwise be equivalent? In past research, this question has been difficult to answer because the information we obtain is often confounded with its consequences. We investigate this question by analyzing data in a paradigm where exploration comes prior to consequential decision-making, in the binary choice paradigm of decisions from experience. By investigating the relationship between patterns of information sampling and subsequent decisions, we find that individuals who switch more between options are less sensitive to the sample means and more likely to make decisions based on the outcome of pairwise comparisons, especially recent outcomes—choosing options that win most of the time. We further show that such pairwise strategies are associated with the underweighting of rare events.