

# **What I Like Is What I Remember: Memory Modulation and Preferential Choice**

**Ada Aka**

University of Pennsylvania, Philadelphia, Pennsylvania, United States

**Sudeep Bhatia**

University of Pennsylvania, Philadelphia, Pennsylvania, United States

## **Abstract**

Memory is a crucial component of everyday decision making, yet little is known about how memory and choice processes interact, and whether or not established memory regularities persist during memory-based decision making. In this paper, we introduce a novel experimental paradigm to study the differences between memory processes at play in standard list recall versus in preferential choice. Using computational memory models, fit to data from two pre-registered experiments, we find that some established memory regularities (primacy, recency, semantic clustering) emerge in preferential choice, whereas others (temporal clustering) are significantly weakened relative to standard list recall. Notably, decision-relevant features, such as item desirability, play a stronger role in guiding retrieval in choice. Our results suggest memory processes differ across preferential choice and standard memory tasks, and that choice modulates memory by differentially activating decision-relevant features such as what we like.