



Episodic memory facilitates flexible access to details from the past during decision making



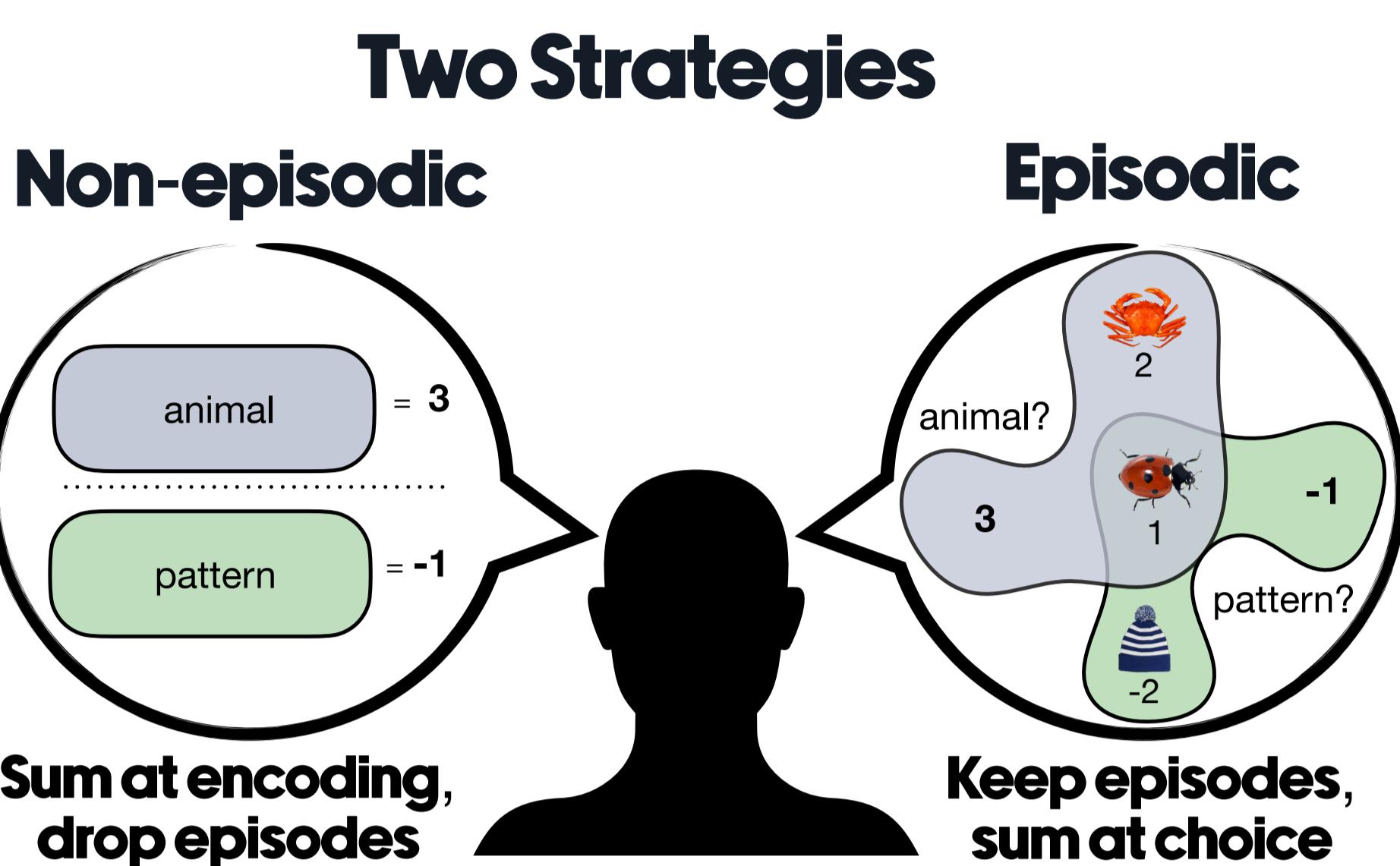
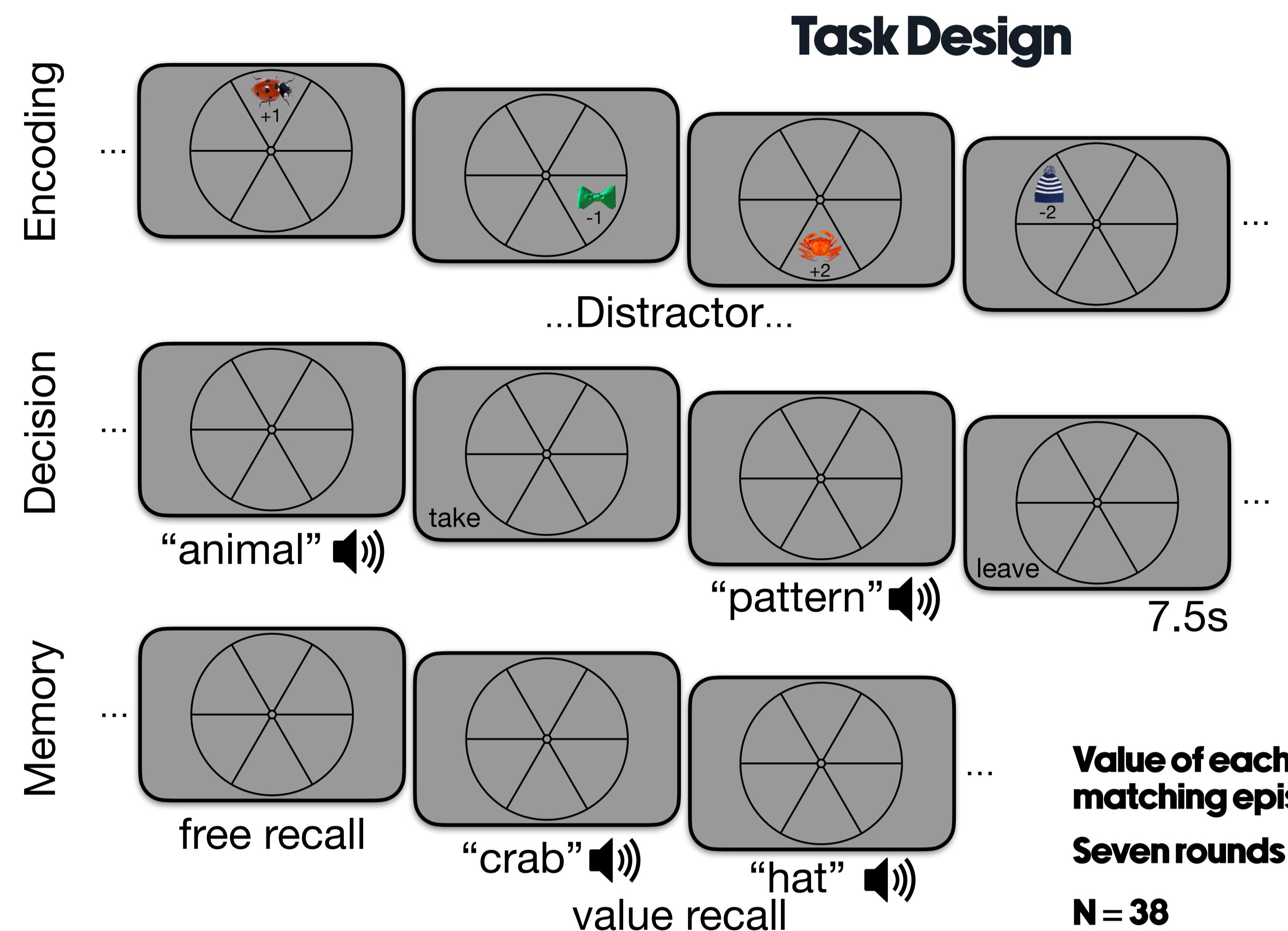
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Episodic memory allows us to remember events in high fidelity. Why?

...maybe this property is adaptive. Episodic memory could help us use arbitrary features of the past when they might be needed for future choices.

Is episodic memory used to make flexible choices?

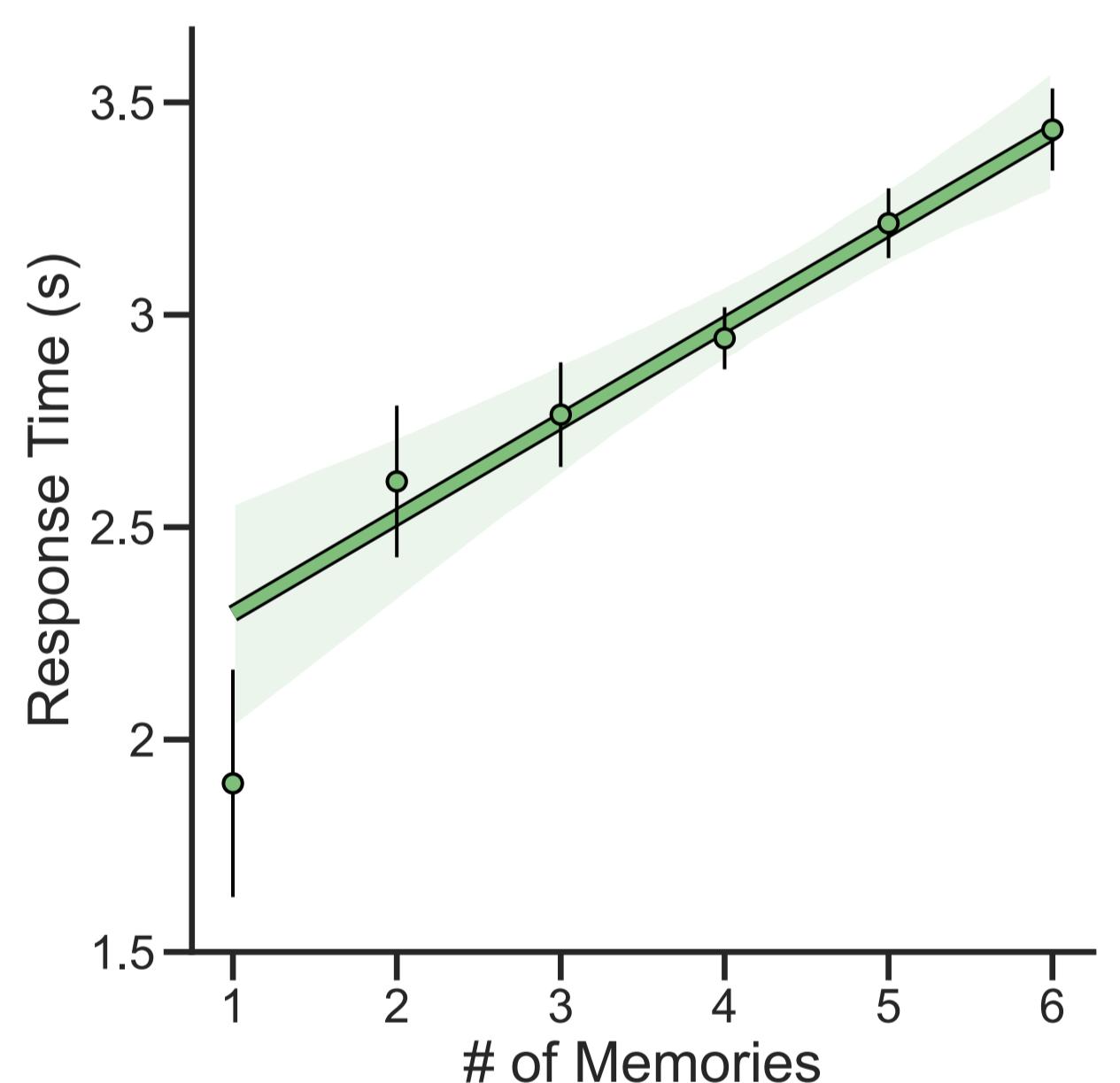
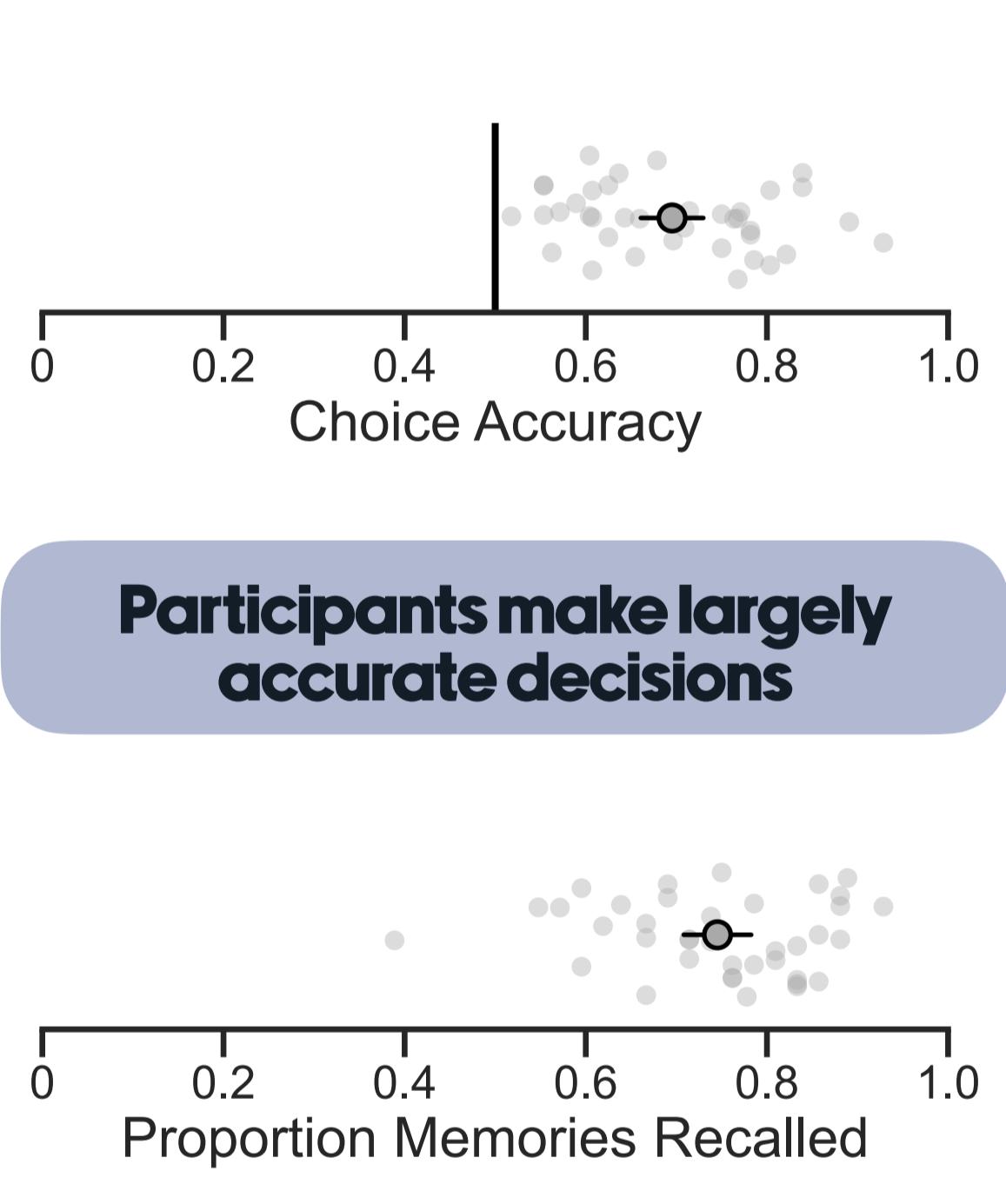


Episodic Telltales

Choices based on more episodes should take longer

Eye gaze during decision making should reflect episodic retrieval

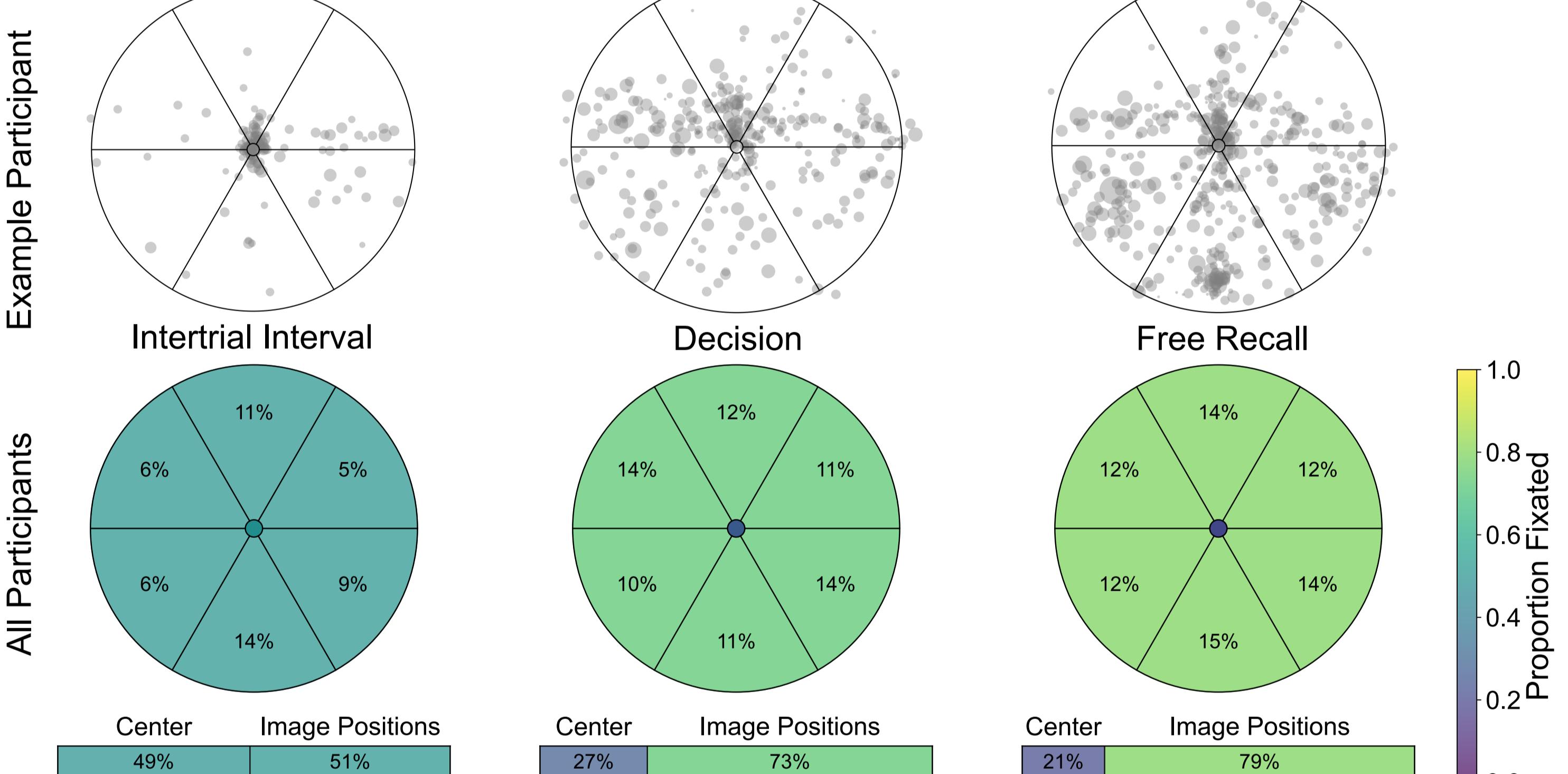
Decisions take longer when more memories are recalled



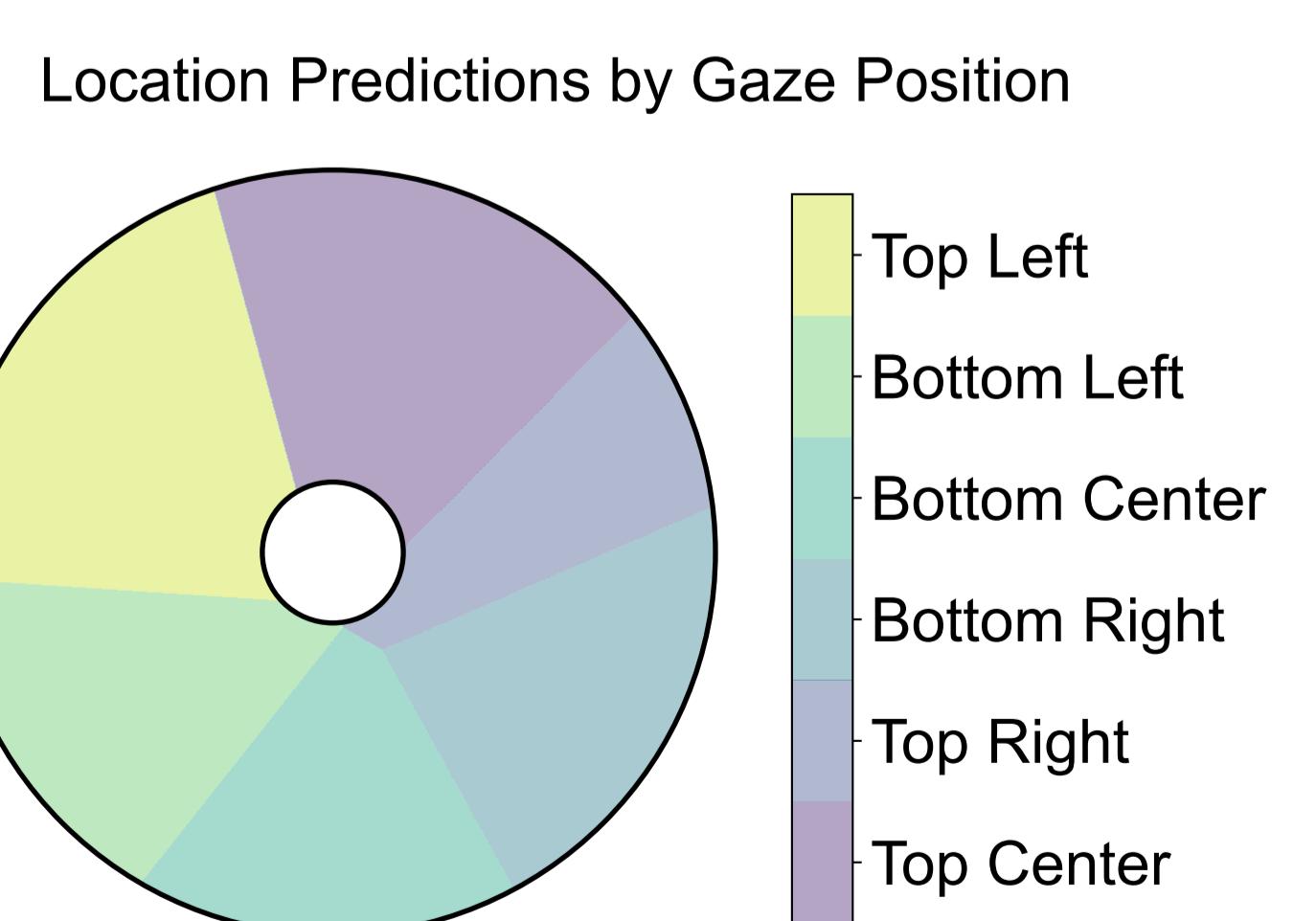
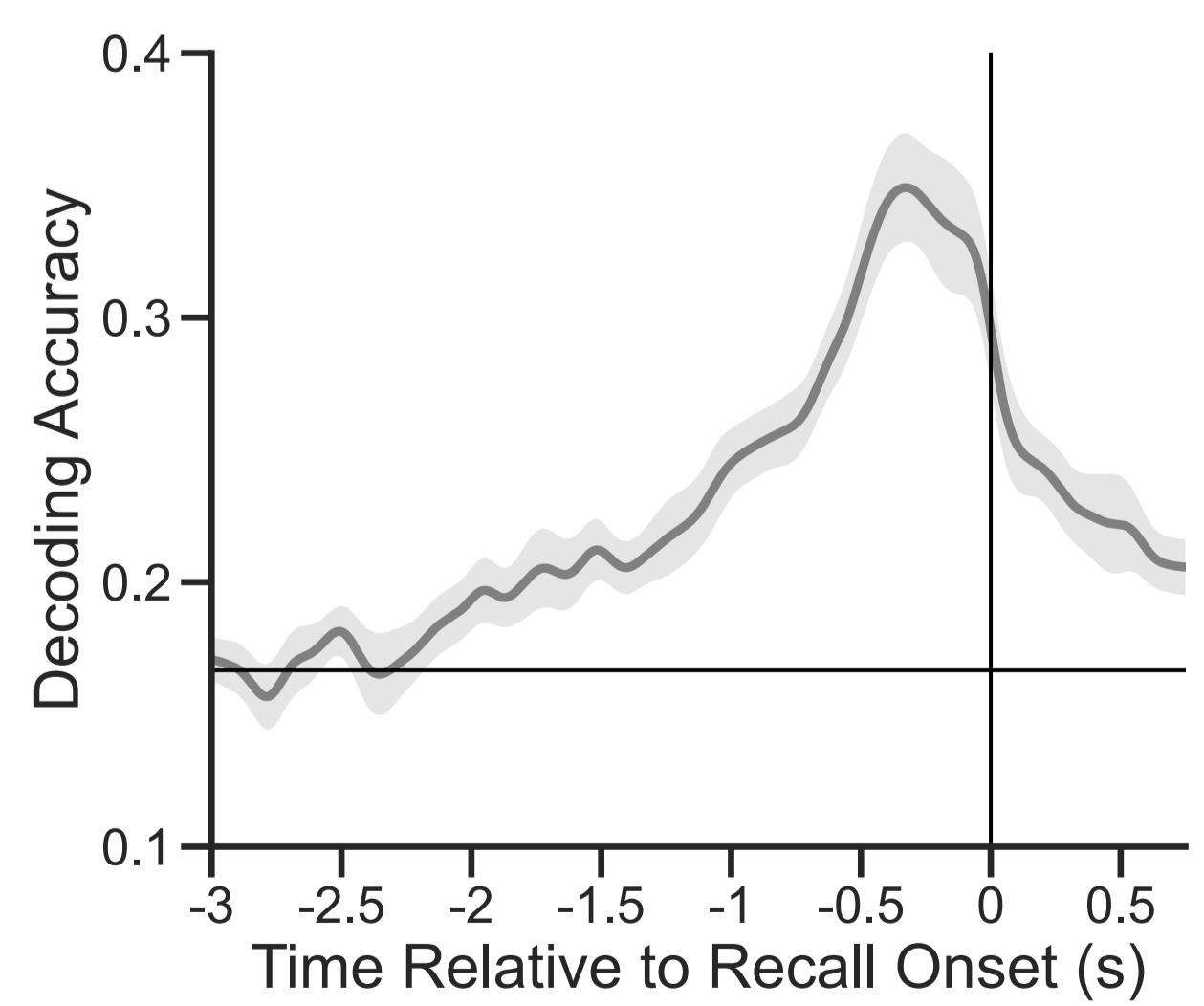
Participants recall most items they see in each round



People "look at nothing" during both free recall and decision making

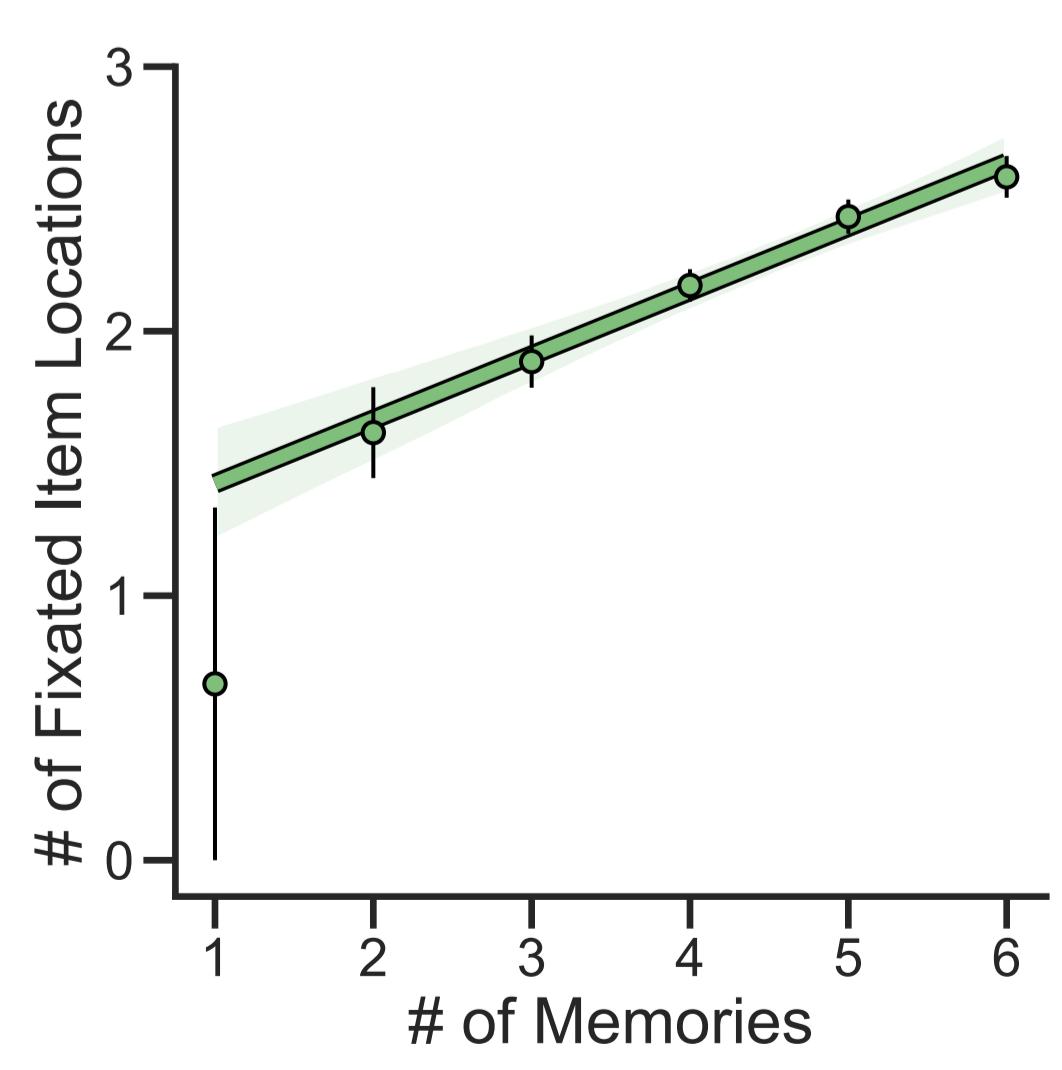
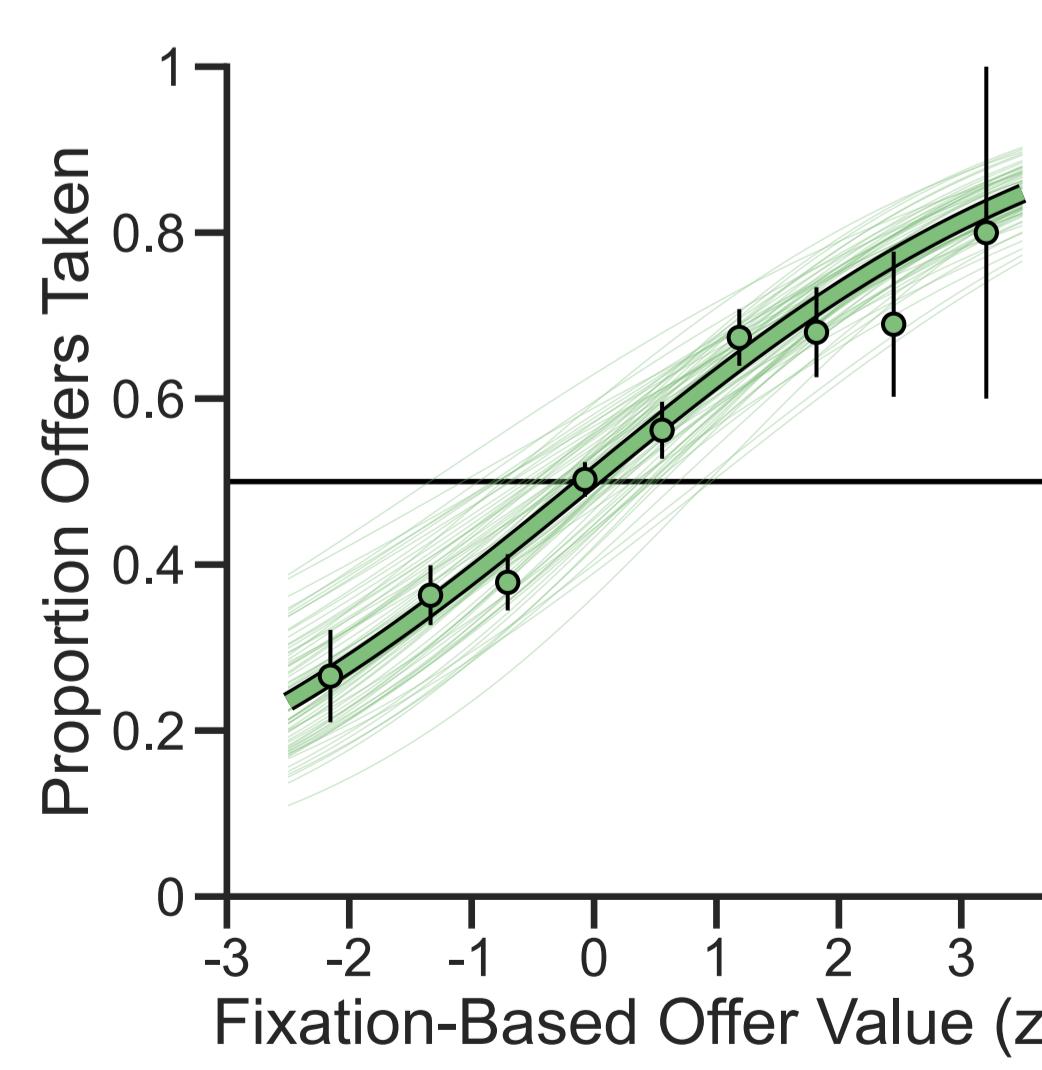
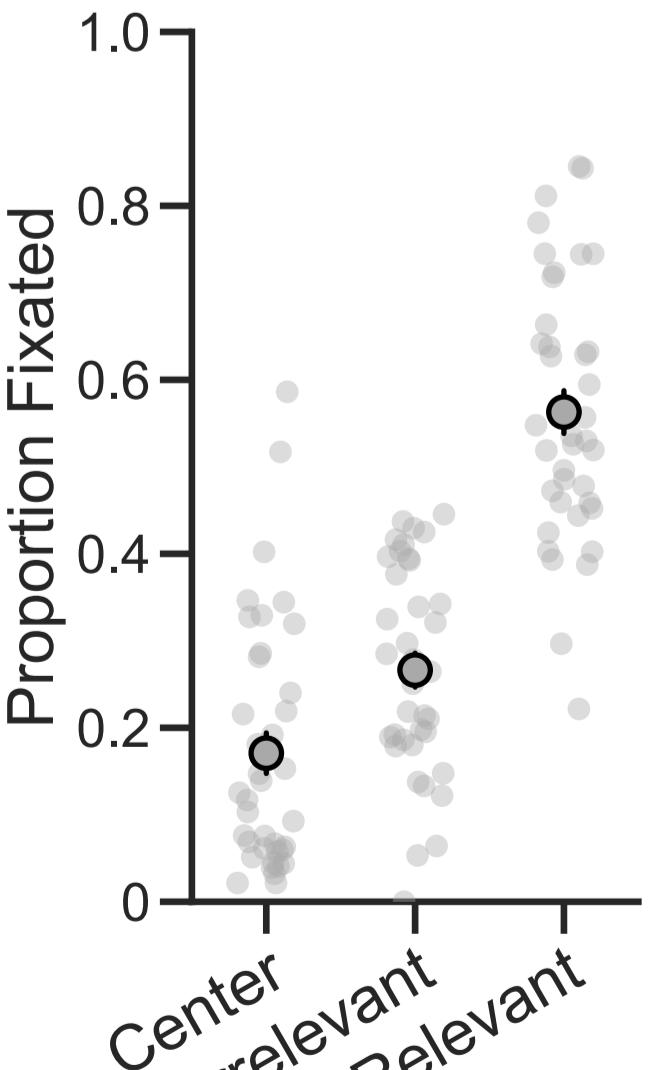


During free recall, people look at the locations of items as they recall them



Eye movements are organized around original encoding locations

During decision making, eye gaze reflects episodic retrieval



Take home

Using eye gaze and response times, we find that people encode many features of episodes for flexible reference in the future