

# Struggling to remember past events?

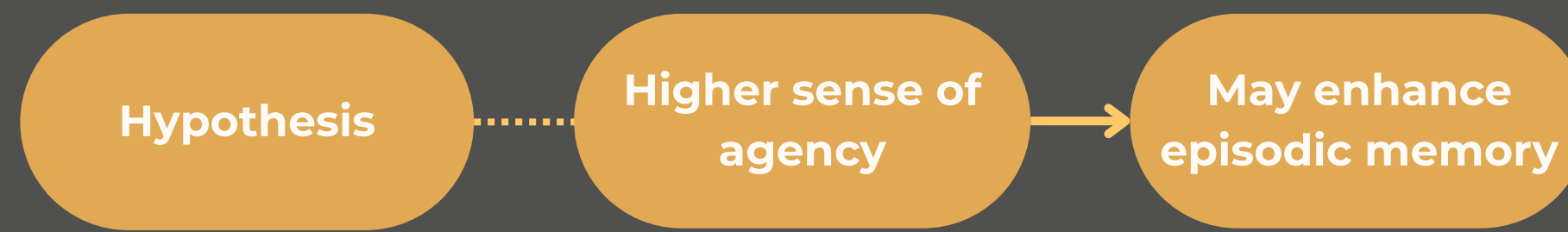
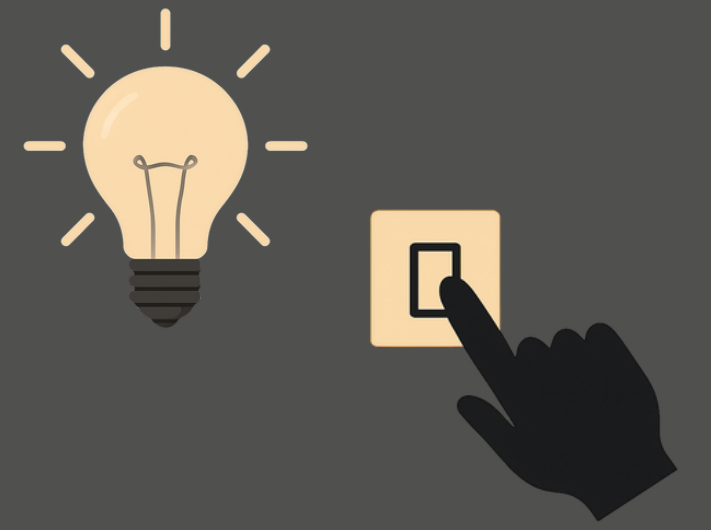
## Take Control.

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### Why are some past experiences vividly remembered while others fade?

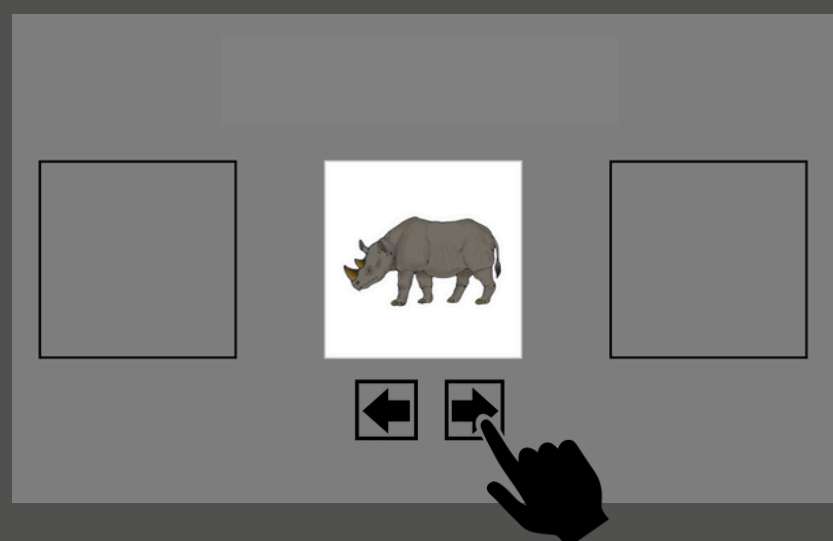
When we engage in an action voluntarily, we usually experience a subjective feeling that we are the authors of our actions and we control their consequences. This is the **sense of agency**.

When we try to recall previous experiences together with their context we use **episodic memory**.

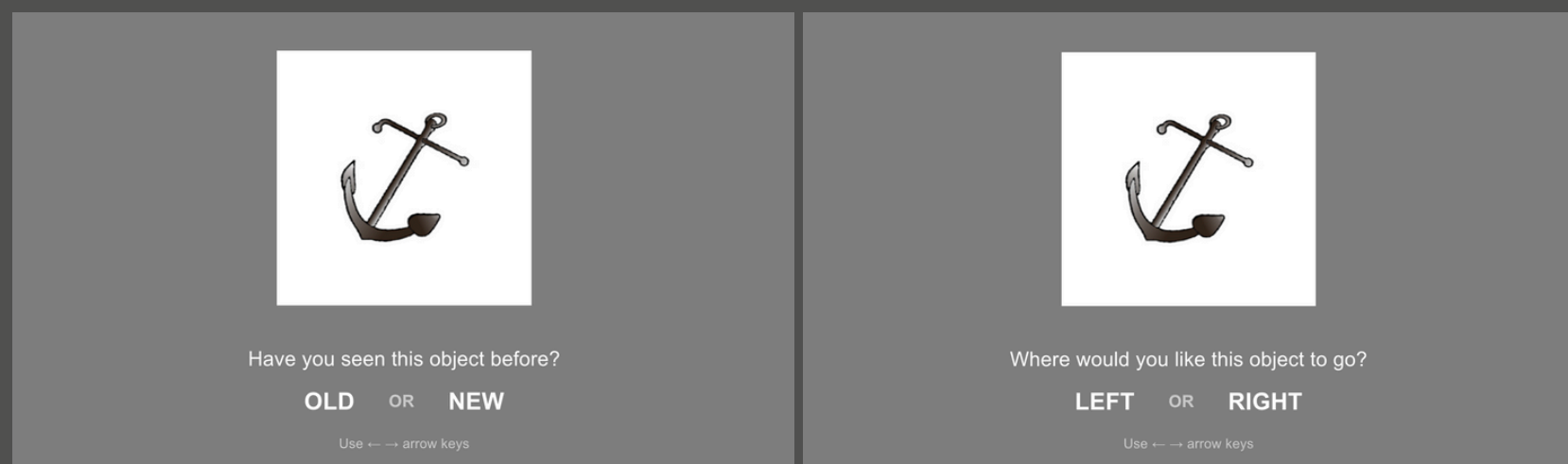


### How do we proceed ?

#### Encoding Session



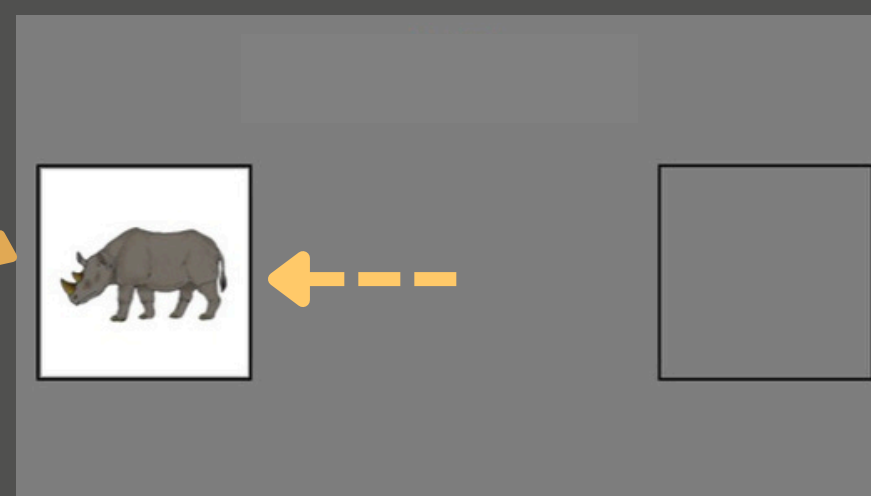
#### Recognition Session



Item Memory

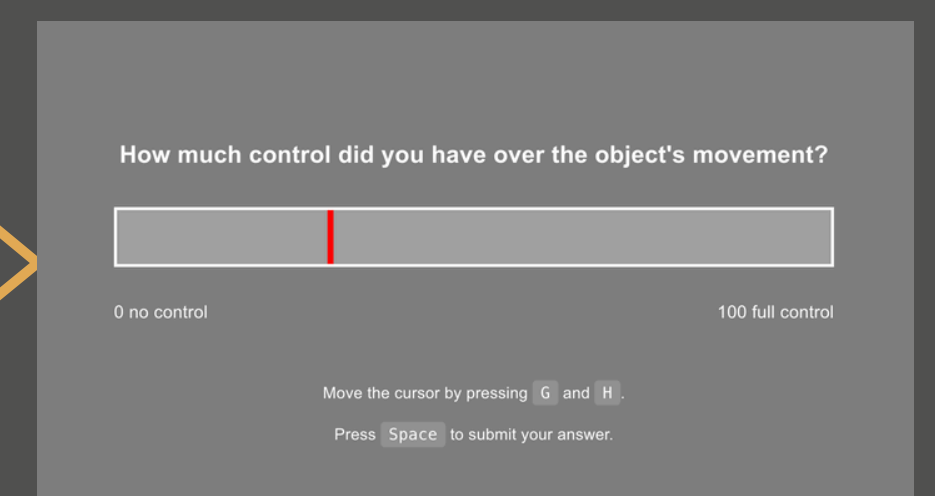
Location Memory

#### High Agency Trial (congruent movement)



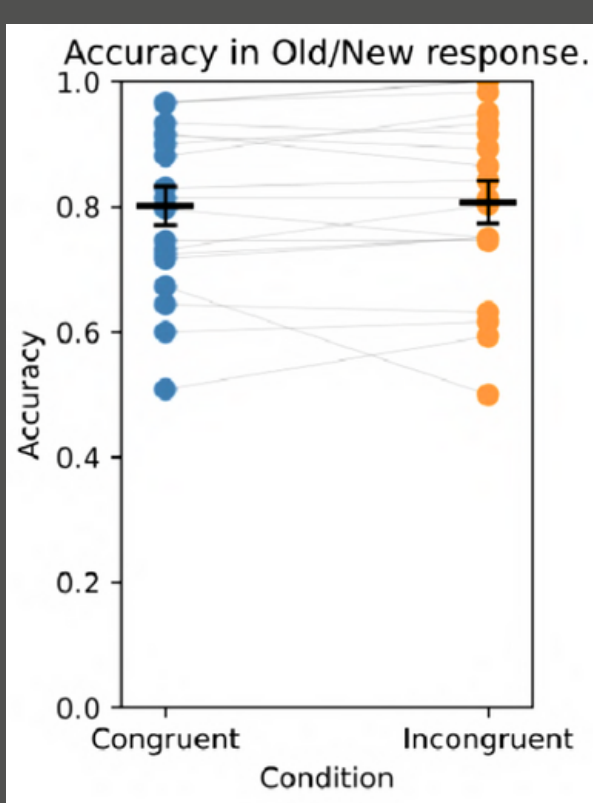
#### Low Agency Trial (incongruent movement)

#### Agency Rating

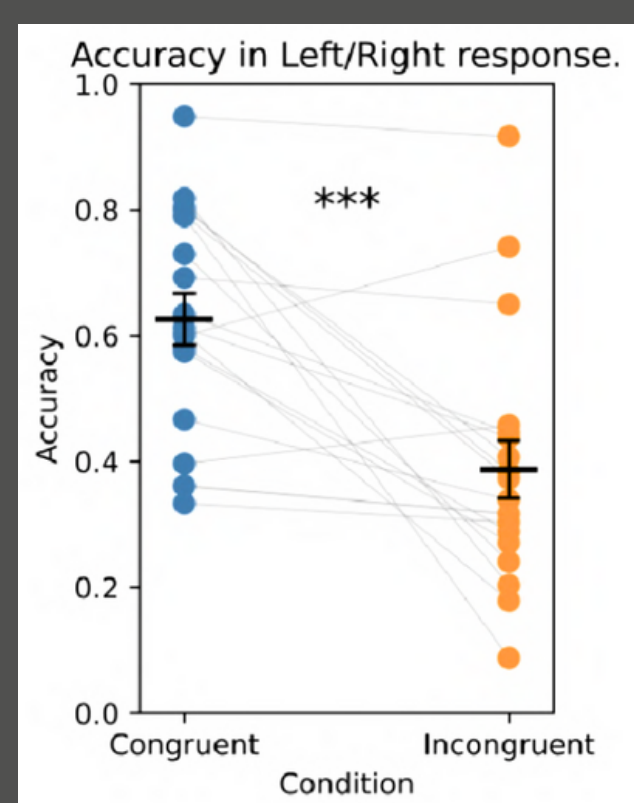


**Congruent vs. incongruent :** A movement is congruent when the participant's action matches the feedback on the screen, and incongruent when it does not.

### What did we find for now?



Accuracy for item memory



Accuracy for location memory

Participants showed **higher location memory** accuracy in **congruent** trials.

### What are the next steps?

- Varying the time intervals between encoding and recall.
- Add **confidence questions** to gather more information about the cognitive mechanisms underlying the participants' choices.

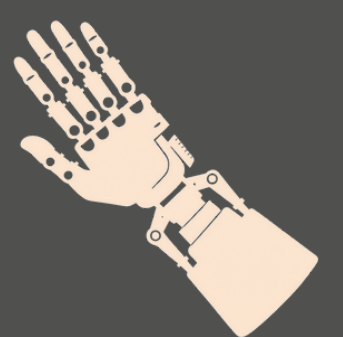
### Who should care about agency?

#### Physicians

Insights into new **non-invasive, non-pharmacological** approaches for treating disorders such as **Alzheimer's disease** and **schizophrenia**.

#### Engineers

Advancing the understanding of how controlling a **prosthesis** affects neurocognitive mechanisms involved in agency and memory.



#### YOU



Higher feeling of **accomplishment** • Foster **self-control**  
• Less chance of **depression** • Better **episodic memory**?

Do you want to learn more about agency?  
Here is my research report:

