

The Association Between Déjà Vu-Like States and Curiosity



Colorado State University

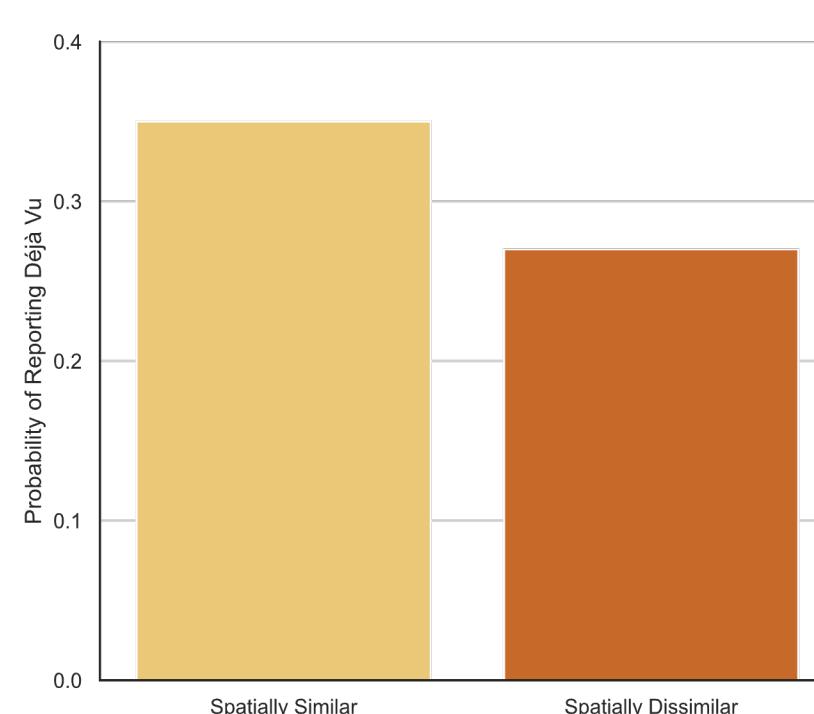
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Introduction

Déjà vu – the feeling of having seen something before while simultaneously feeling a sense of novelty.

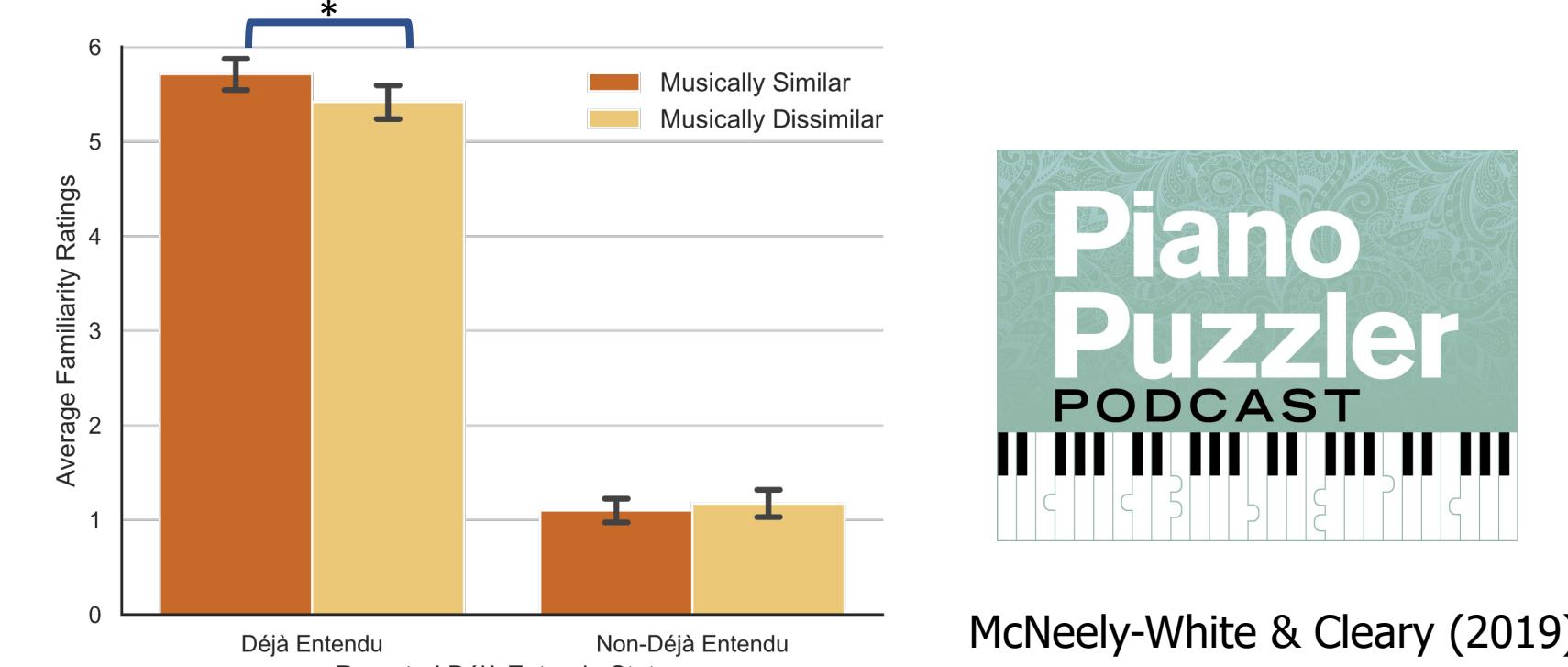
Déjà Vu and Spatial Similarity



Déjà vu more likely in spatially similar environments
Cleary et al. (2018)

Déjà entendu – the feeling of having heard something before while simultaneously feeling a sense of novelty.

Déjà Entendu and Musical Similarity



McNeely-White & Cleary (2019)

Present Study

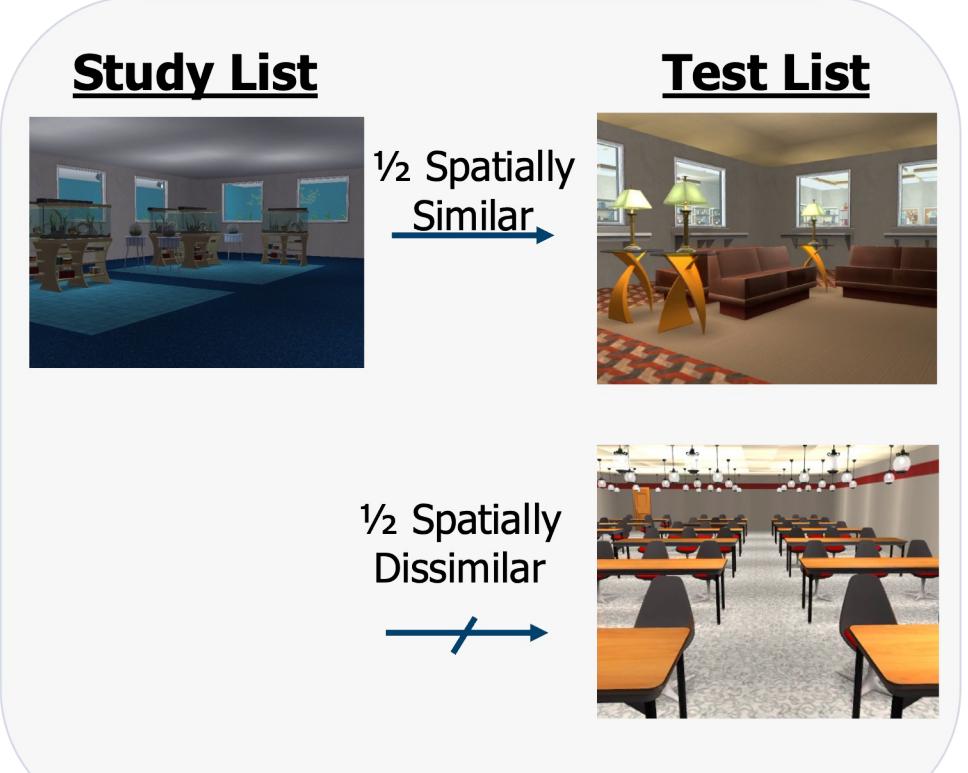
Do these metacognitive sensations serve as adaptive functions?

Are déjà vu-like states associated with increased feelings of curiosity?

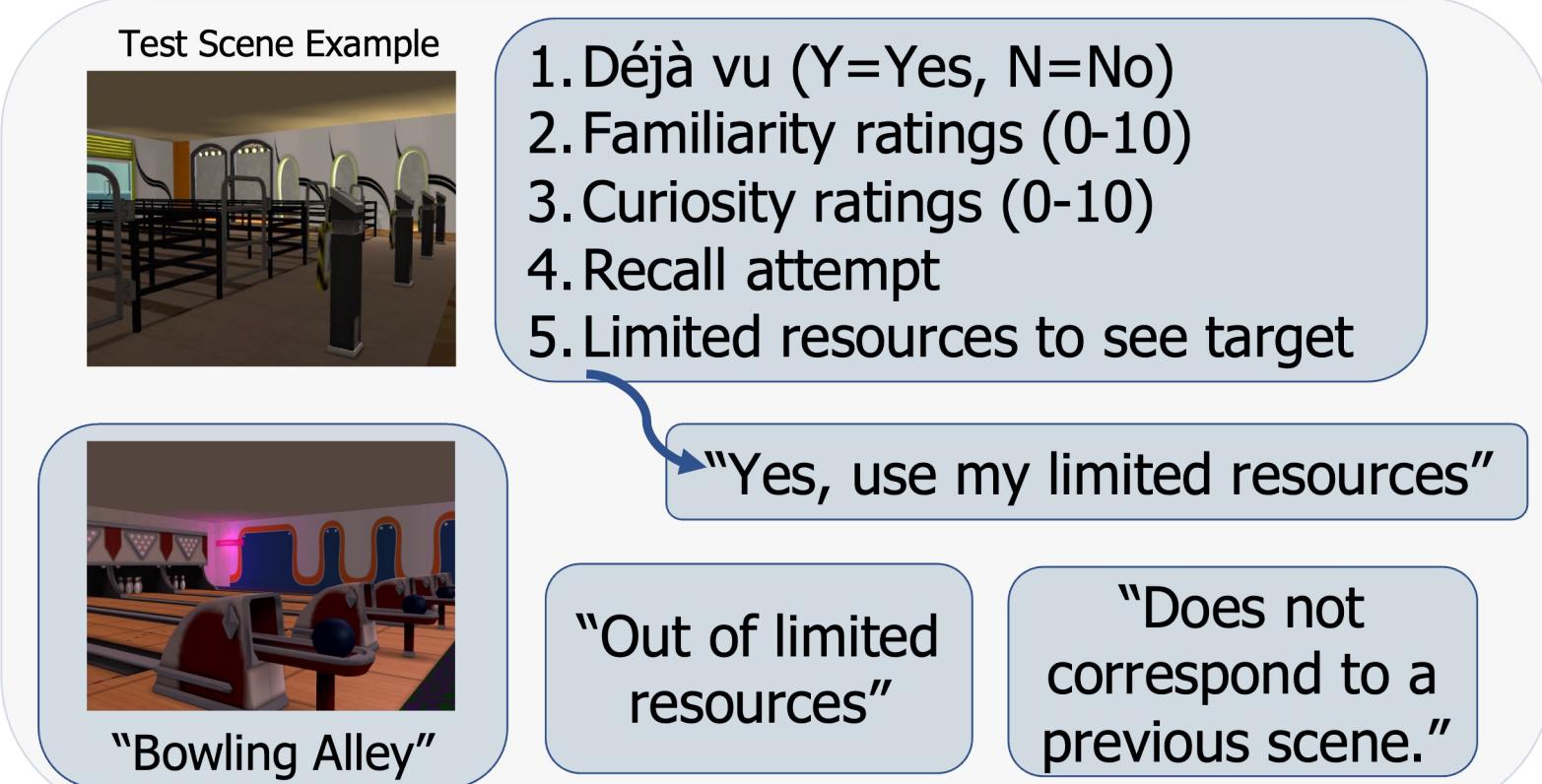
Increased inclination to use resources?

Procedure

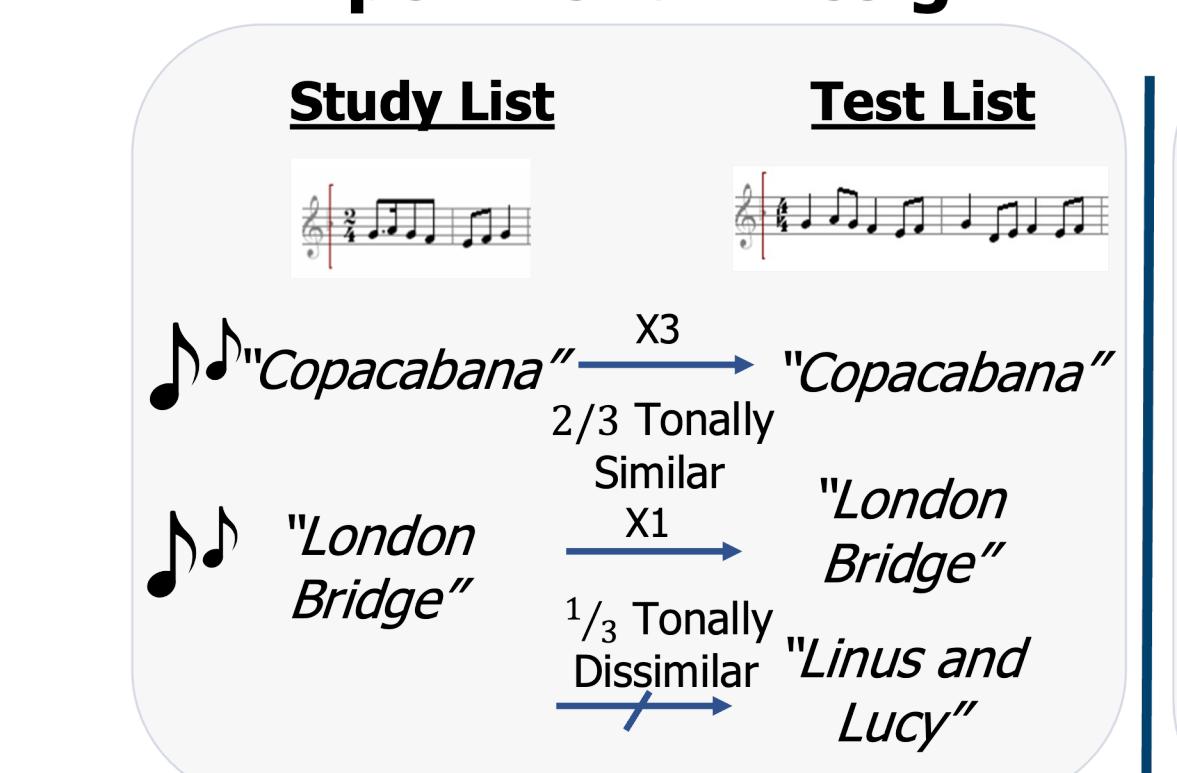
Experiment 1 Design



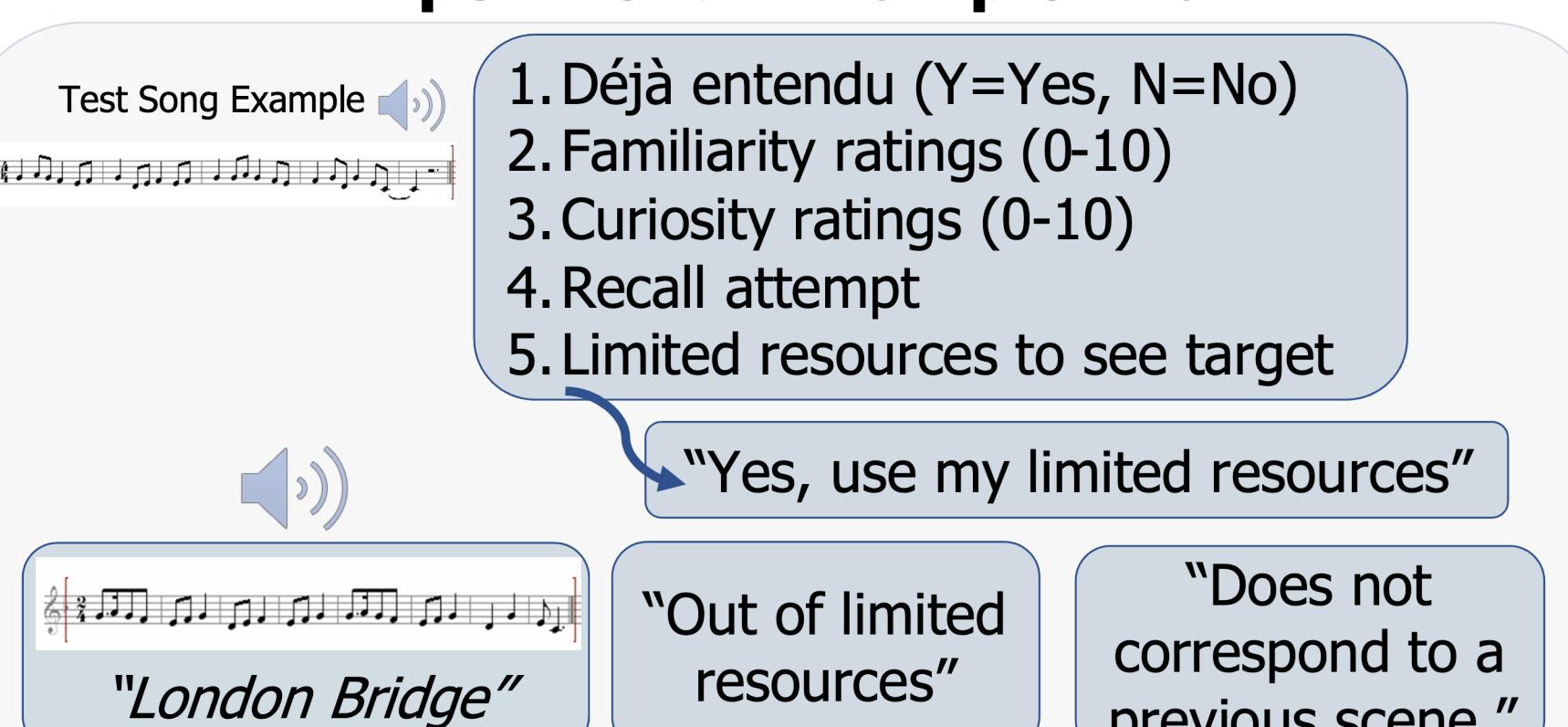
Experiment 1 Example Trial



Experiment 2 Design



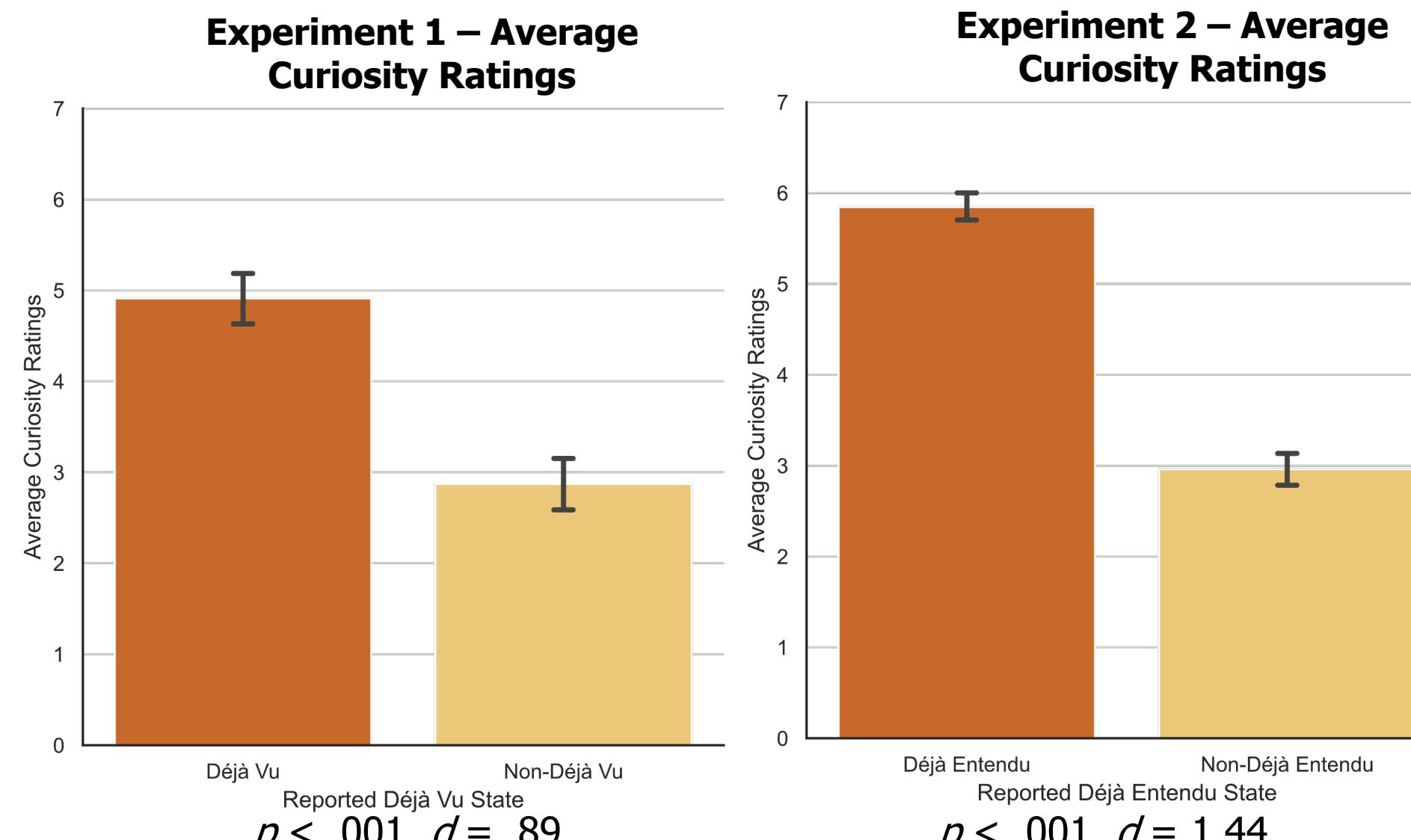
Experiment 2 Example Trial



Results

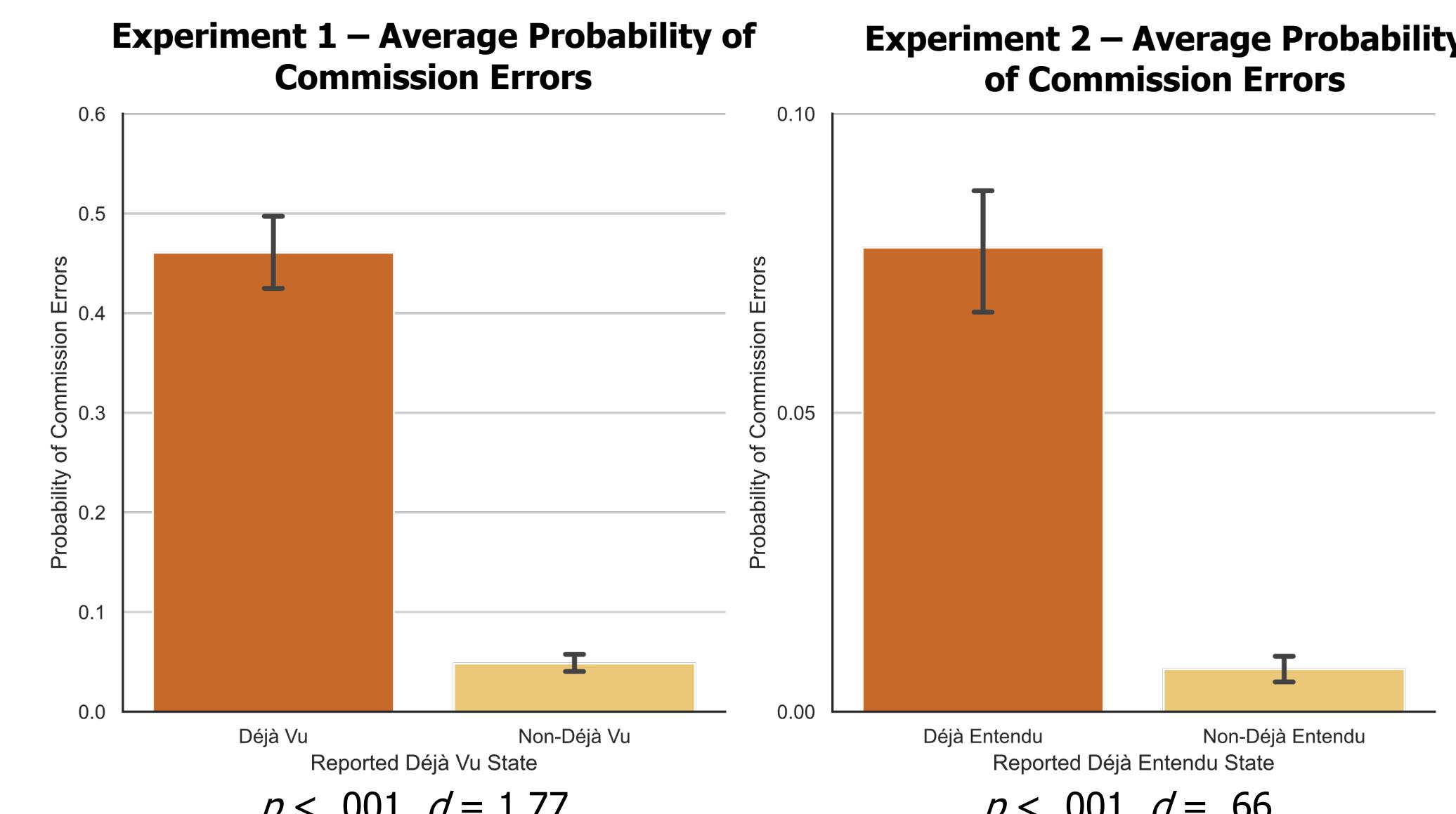
Curiosity Ratings

Will participants show heightened levels of curiosity during déjà vu-like states?



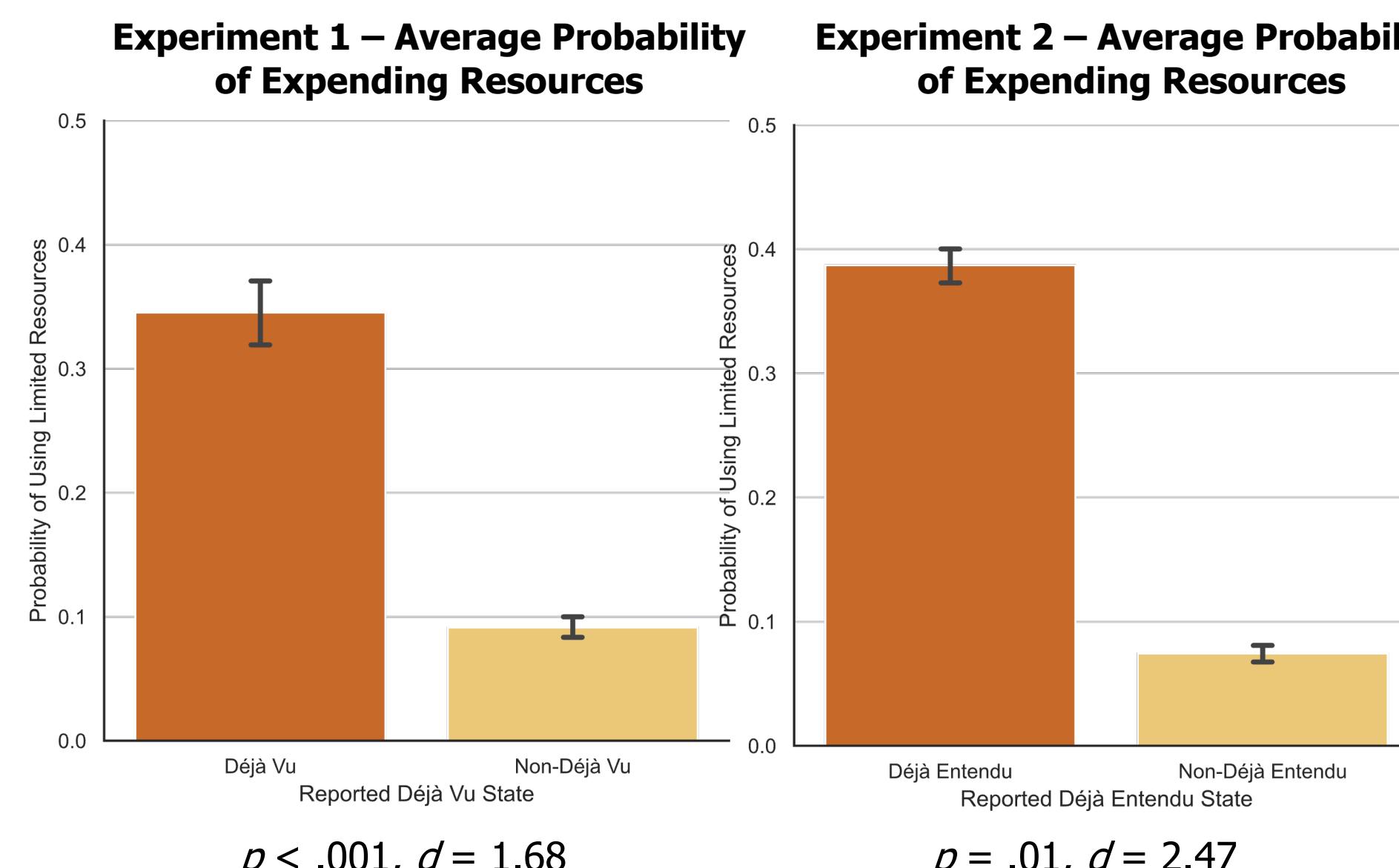
Commission Error Rates

Will participants show increased commission error rates?



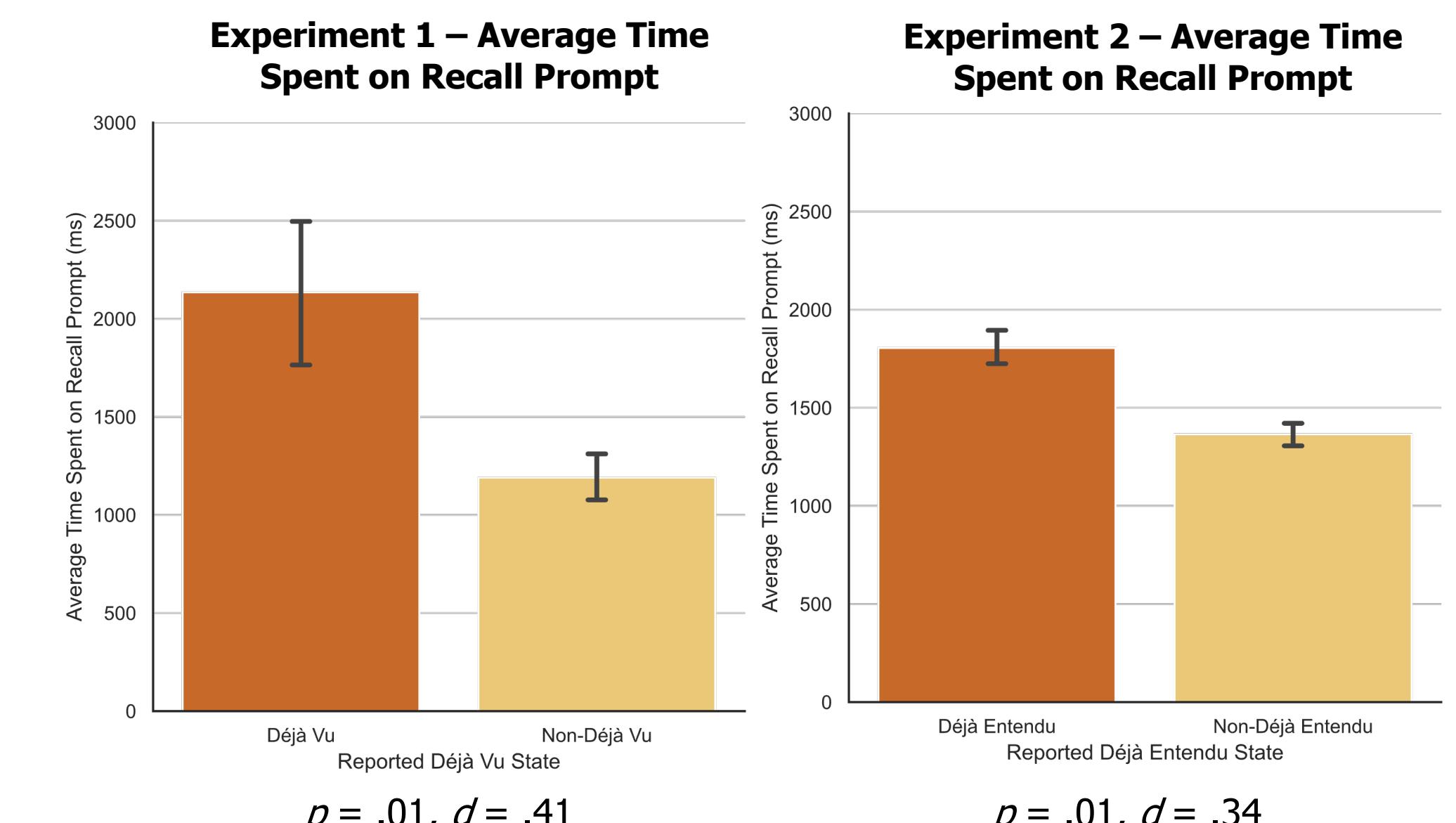
Inclinations to Expend Limited Resources

Will participants be more likely to use their limited resources to receive relevant target information?



Retrieval Search Time

Will participants spend longer time on the Recall Prompt while experiencing déjà vu-like states?



Conclusions

Déjà vu-like states may serve adaptive functions in larger memory system.

- Increased subjective curiosity
- Increased internal search efforts (commission errors, retrieval search time)
- Increased external search efforts (expenditure of limited resources)

Future Directions

Role of Agency?

Immediate Resolution



Hints

"It was an environment with sea creatures."

"From the movie Aladdin."

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References

- Cleary, A. M., Huebert, A. M., McNeely-White, K. L., & Spahr, K. S. (2019). A postdictive bias associated with déjà vu. *Psychonomic Bulletin & Review*.
- Kostic, B., & Cleary, A. M. (2009). Song recognition without identification: When people cannot "name that tune" but can recognize it as familiar. *Journal of Experimental Psychology: General*, 138(1), 146-159.
- McNeely-White, K. L., & Cleary, A. M. (2019). Music recognition without identification and its relation to déjà entendu: A study using "Piano Puzzlers." *New Ideas in Psychology*, 55, 50-57.