



Memory specificity and generalization: Competing or complementary processes?

Celina Maldonado¹, Lea Frank^{1,2}, Dasa Zeithamova^{1,2},

¹University of Oregon, ²Department of Psychology



Introduction

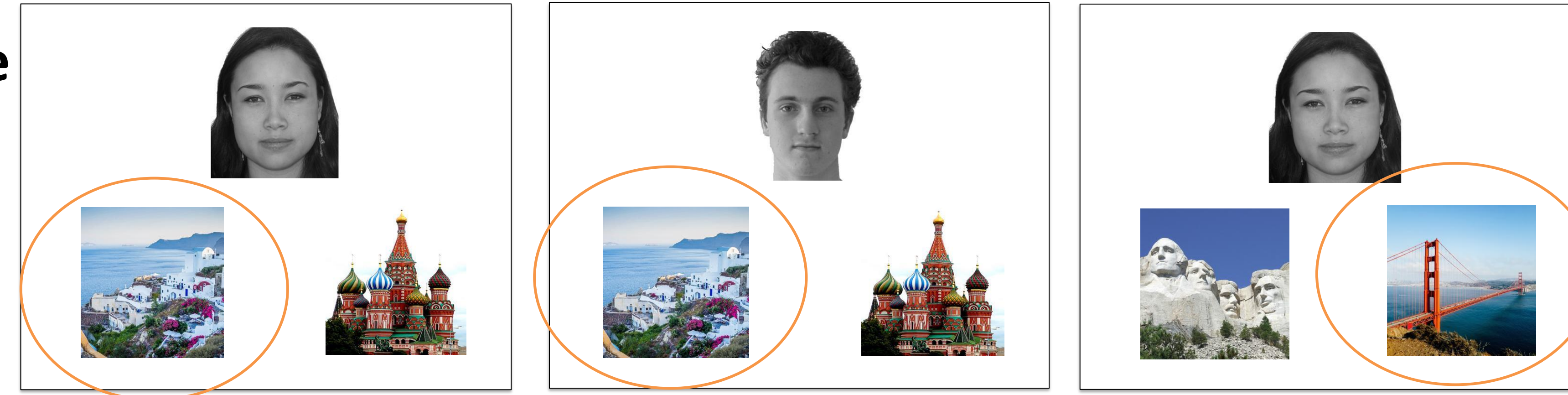
- Generalization is the ability to link events or concepts that were not experienced together¹.
- Source memory is the ability to recall the source of learned information².

Research Question

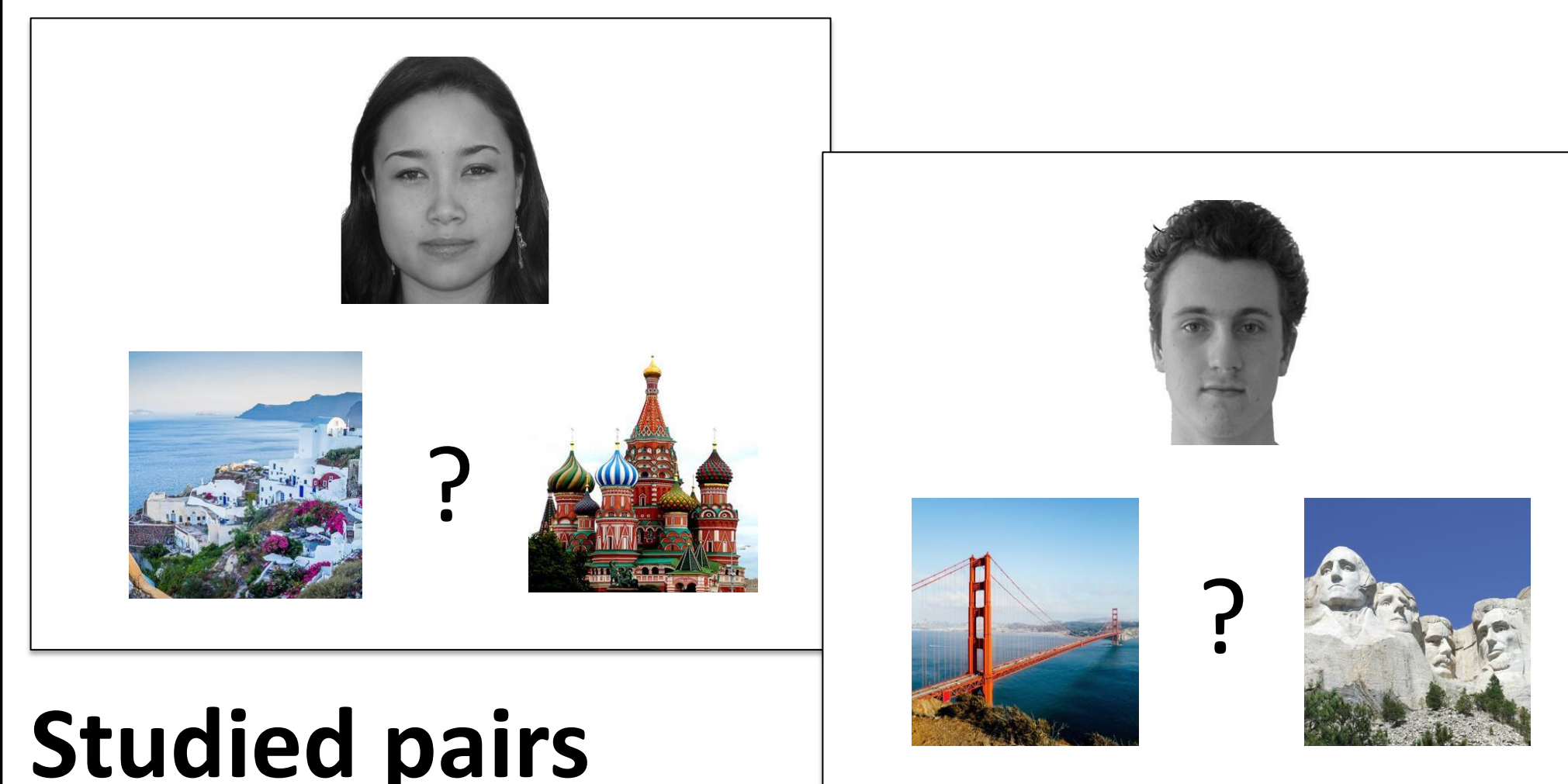
When generalizing to new experiences, is source information for individual memories lost?

Methods

Study Phase



Test Phase



Studied pairs

Generalization pairs

Source memory test

Have you seen these together before?

- 1) Study only
- 2) Test only
- 3) Study & Test
- 4) Never

- N = 39
- Study phase: studied face-scene pairs
- Test phase: studied pairs and generalization pairs
- Source memory test: source of studied, generalization, and new face-scene pairs.

Results

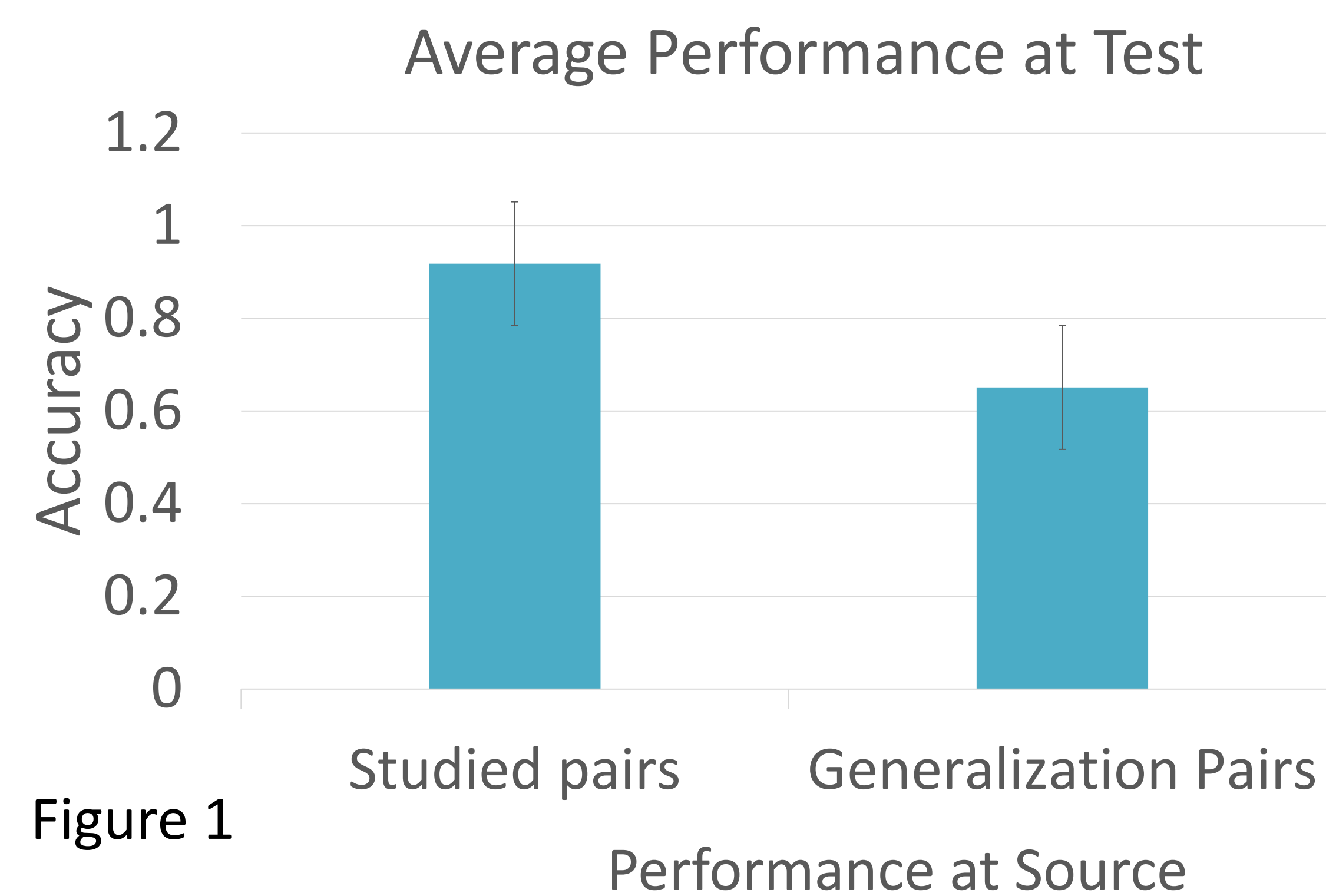


Figure 1

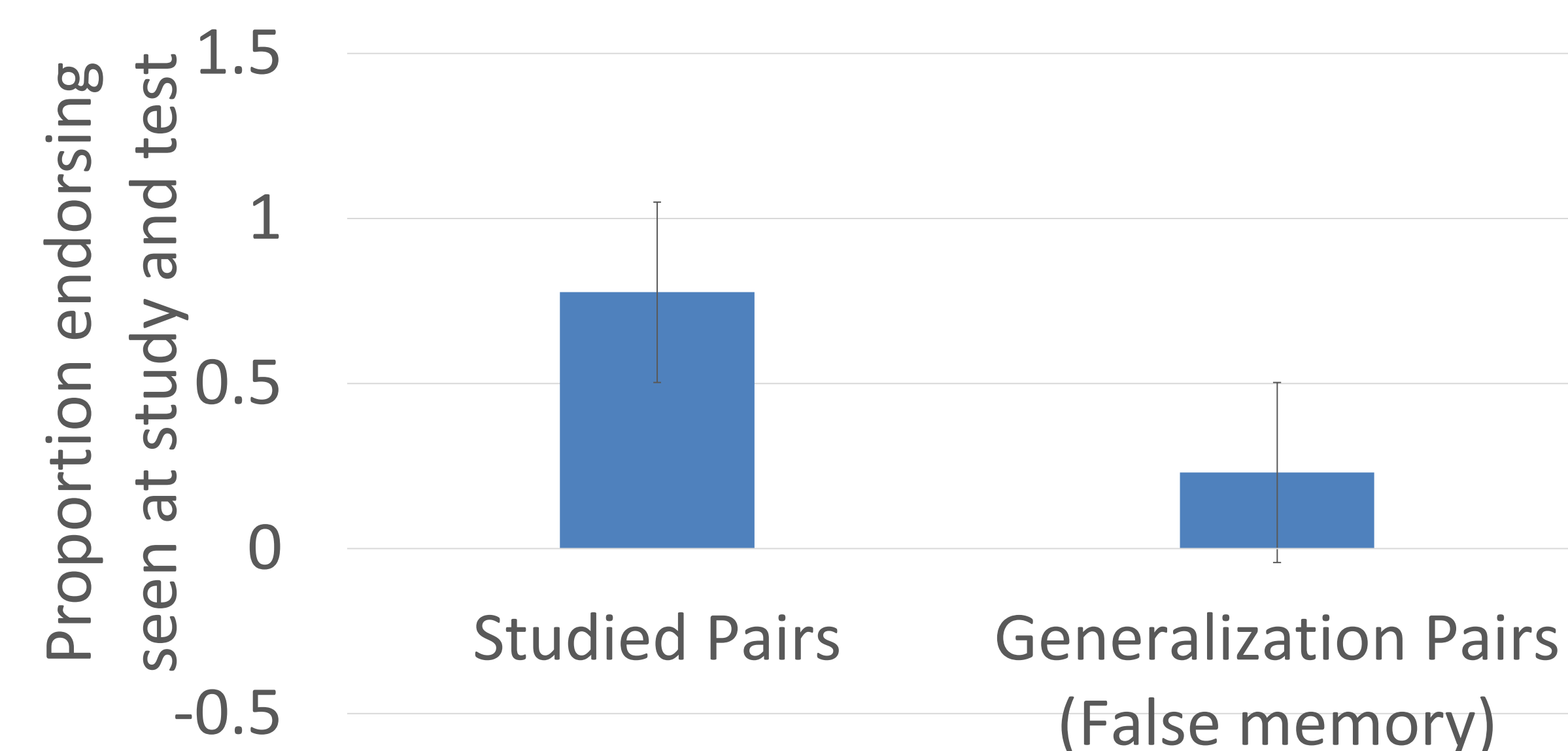


Figure 2

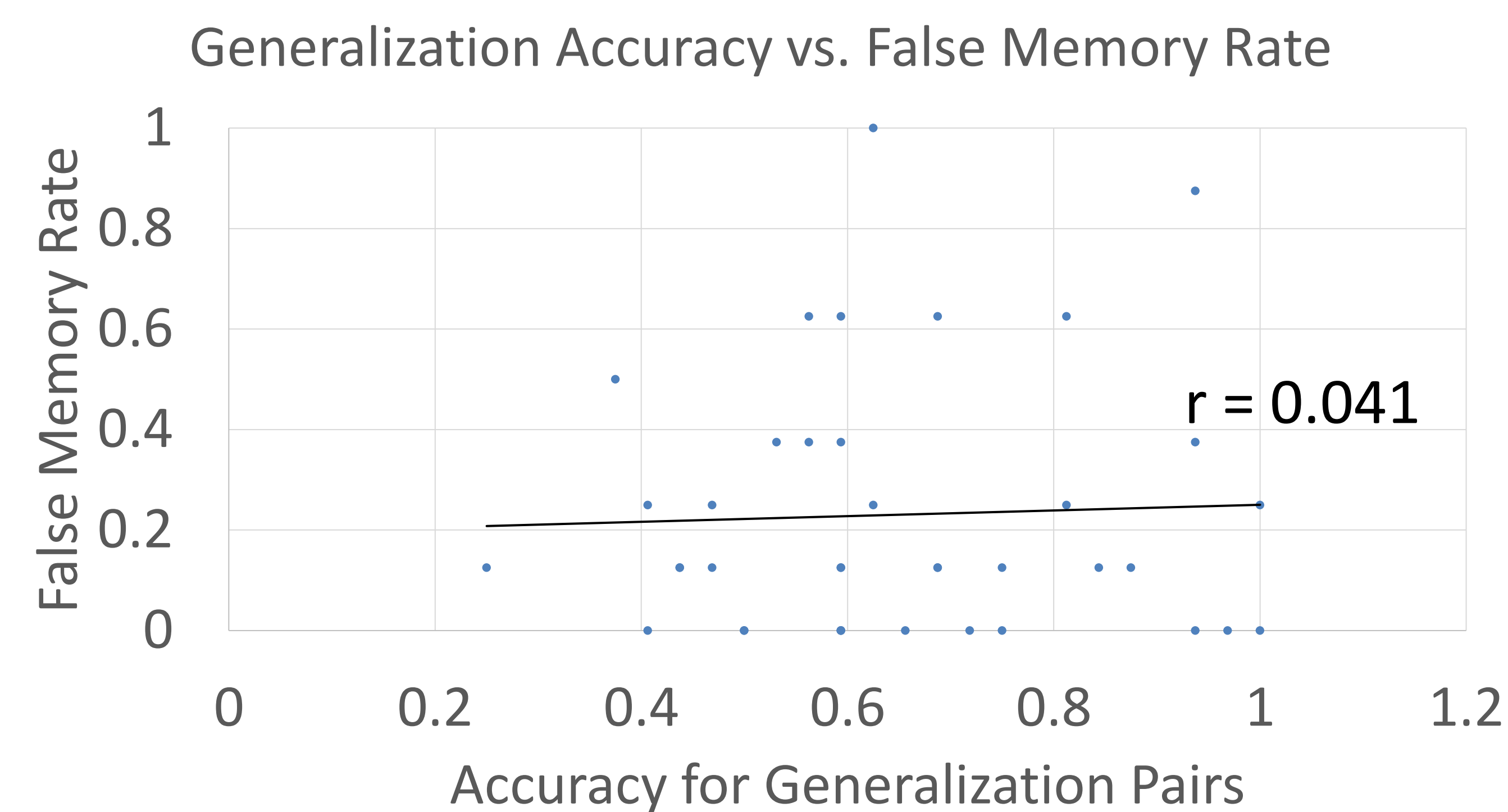


Figure 3

- Accuracy on both studied and generalization pairs were above chance.
- Source memory for the studied pairs was high, while source memory for the generalization pairs was worse.
- Generalization performance did not track false alarm rate.

Conclusions

- People have a tendency to generalize previously learned information to new, related experiences.
- In this experiment, generalization across these related experiences did not lead to a loss of source memory.
- Based on this, generalization and source memory may be independent processes.

References

- ¹Zeithamova, D. Schlichting, M.L. & Preston, A.R. (2012) Front. Hum. Neurosci. 6(70).
- ²Pandey J. (2011) Source Memory. In: Kreutzer J.S., DeLuca J., Caplan B. (eds) Encyclopedia of Clinical Neuropsychology.