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Temporal Specificity of Recognition-Induced Forgetting

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Introduction

Recognition-Induced Forgetting (RIF): Recognition practice of previously-encoded visual memories impairs the subsequent recognition of related-but -unpracticed visual memories

(Maxcey & Woodman, 2014; Rugo, Tamler, Geoffrey F. Woodman, & Maxcey, 2017)

Is the RIF effect permanent?
Are consolidated memories protected against RIF?

Experimental Design

N=92

Encoding: “Remember the pictures as vividly as possible”



Recognition Practice: “Did you see this picture in encoding?”

Confidence scale used:

1 2 3 4 5 6
Def same Prob same Maybe same Maybe diff Prob diff Def diff



Feedback:



Wrong Correct

Not shown:

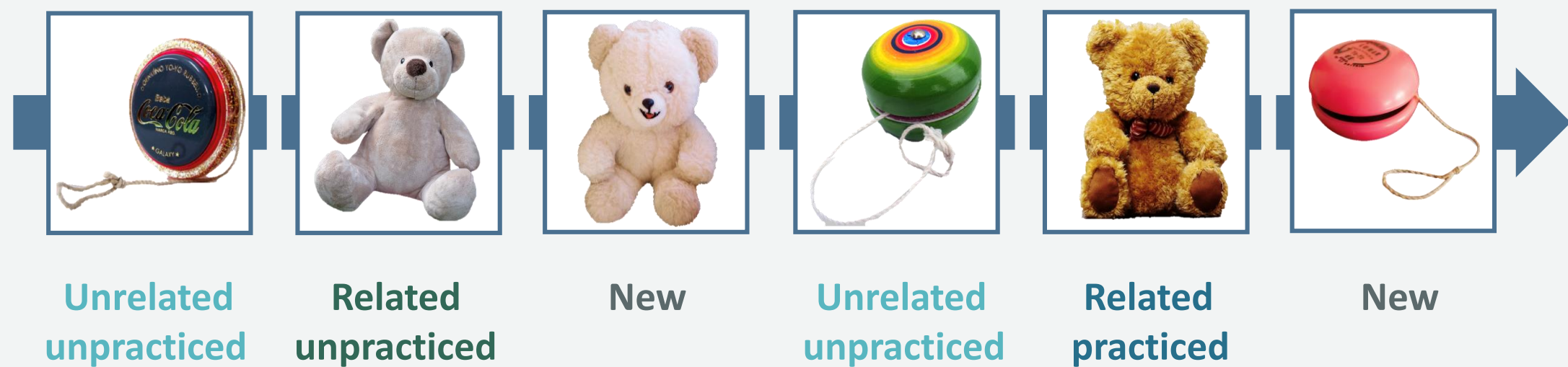


Related unpracticed



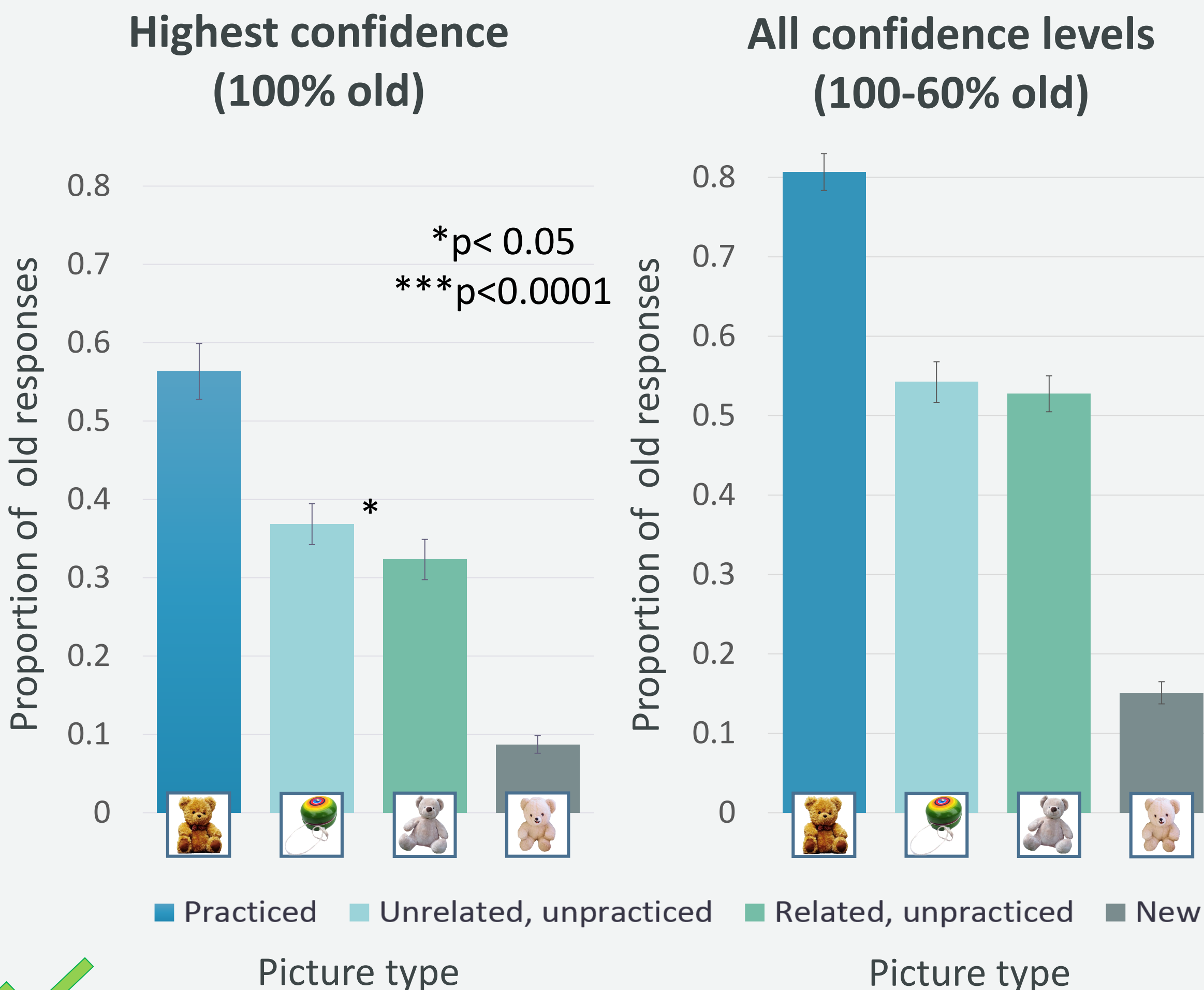
Unrelated unpracticed

Final Recognition: “Did you seen this picture in encoding?”

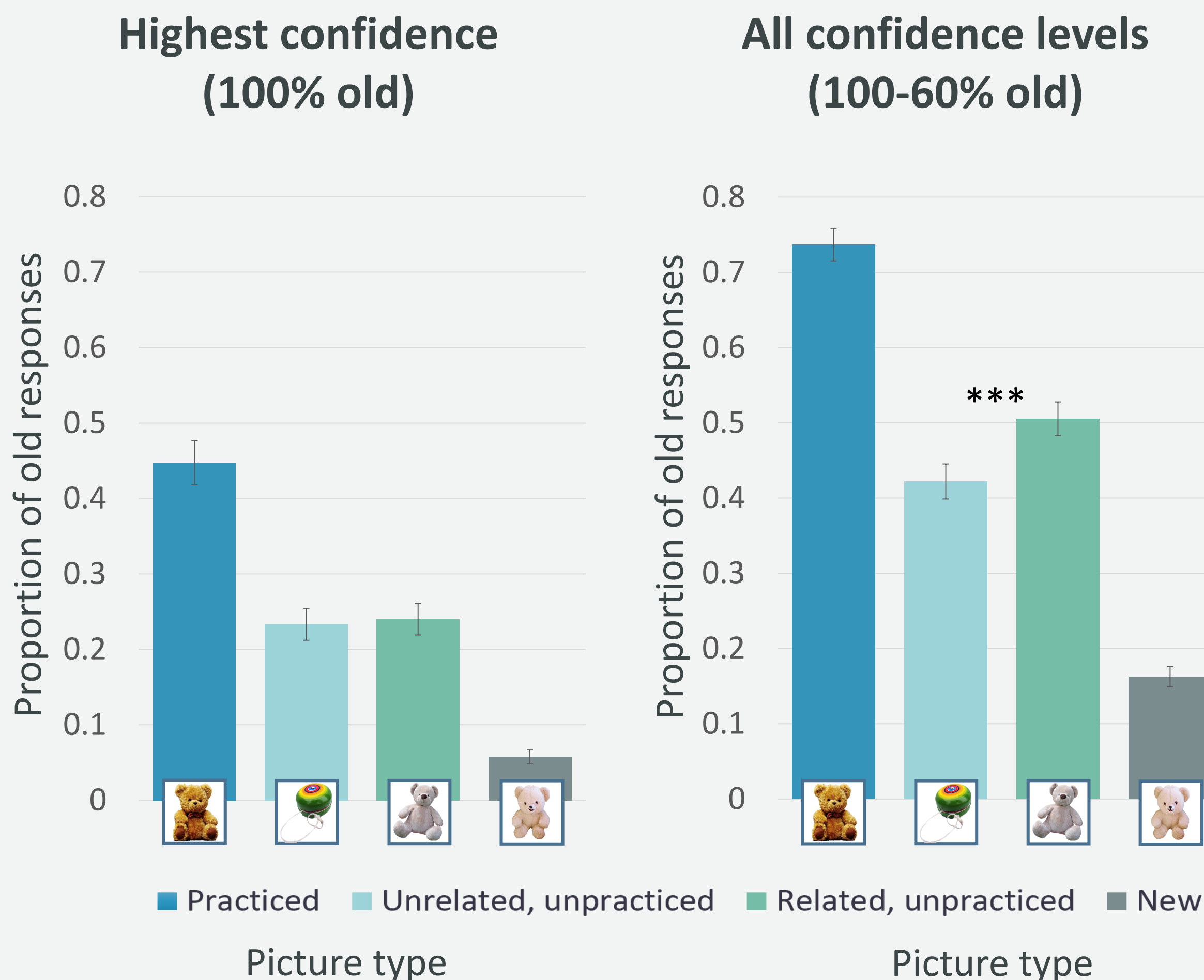


Condition Type	Day 1	Day 2
E1P1R1	- Encoding - Recognition practice - Final recognition test	
E1P1R2	- Encoding - Recognition practice	Final recognition test
E1P2R2	Encoding	- Recognition practice - Final recognition test

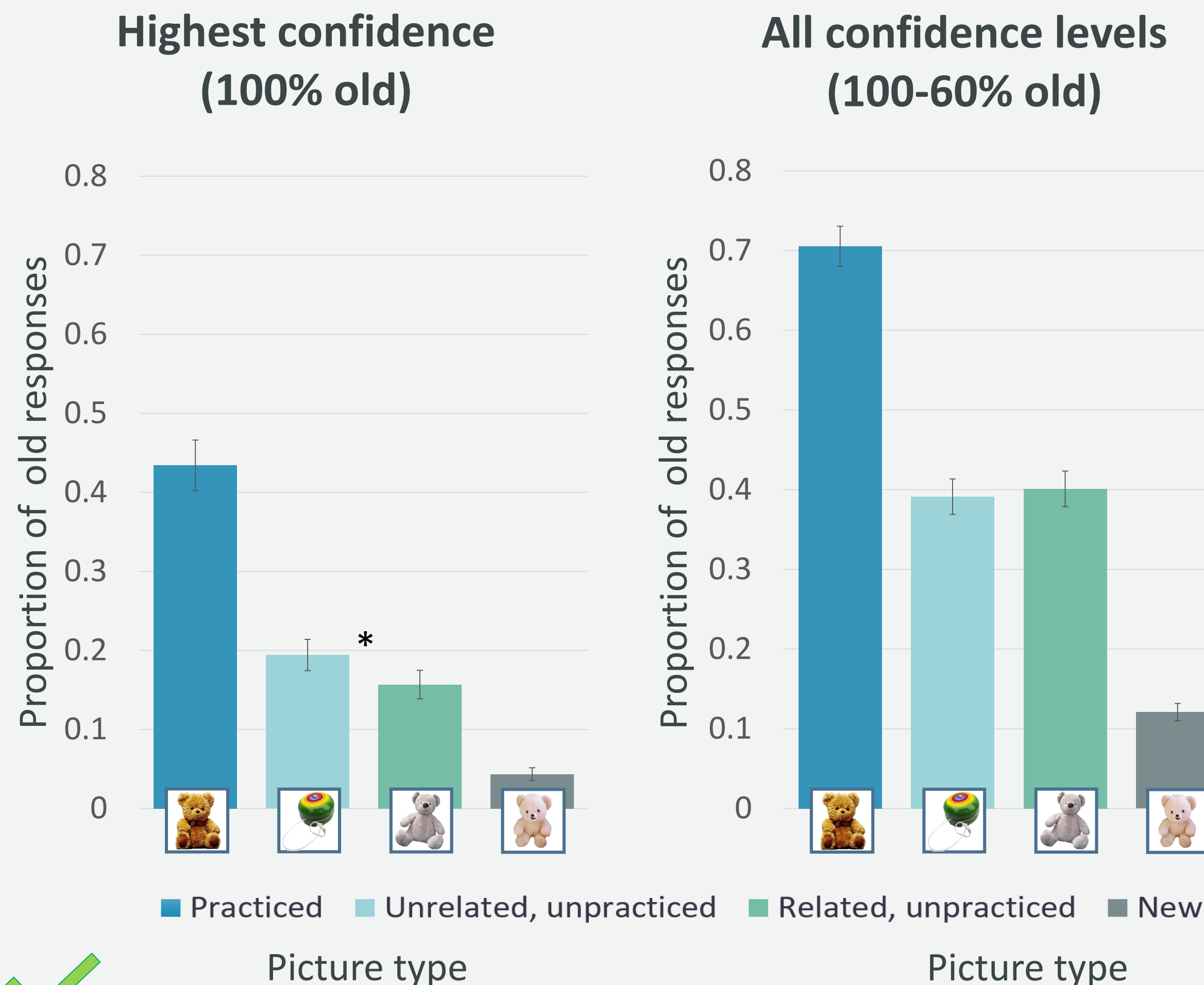
Is RIF replicated? (E1P1R1)



Is the RIF effect permanent? (E1P1R2)



Can consolidated memories be victims of RIF? (E1P2R2)



Discussion

- RIF is NOT seen in E1P1R2:
 - RIF is **not permanent**
 - The practice effect is still present in all the conditions, even without the RIF effect
 - Enhancement and inhibition are dissociable
- RIF is seen in E1P1R1 and E1P2R2:
 - Newly encoded AND consolidated** memories can be diminished by RIF

RIF appears to be a temporally specific phenomenon!

Future Directions

Replicate the experiment with a multidimensional scaling database with similarity ratings for 240 categories.

(Hout, Goldinger, & Brady, 2014)

References

Hout, M. C., Goldinger, S. D., & Brady, K. J. (2014). MM-MDS: A multidimensional scaling database with similarity ratings for 240 object categories from the Massive Memory picture database. *PLoS One*, 9(11).
Maxcey, A. M., & Woodman, G. F. (2014). Forgetting induced by recognition of visual images. *Visual Cognition*, 22(6), 789-808.
Rugo, K. F., Tamler, K. N., Woodman, G. F., & Maxcey, A. M. (2017). Recognition-induced forgetting of faces in visual long-term memory. *Attention, Perception, & Psychophysics*, 79(7), 1878-1885.