For research article

Response to Reviewer 2 Comments

1. Summary

We sincerely thank the reviewer for the time and effort devoted to evaluating our manuscript. We greatly appreciate the constructive feedback and thoughtful suggestions, which have helped us to improve the clarity, accuracy, and overall quality of the paper. We have carefully addressed each comment in detail, with corresponding revisions highlighted in the re-submitted files. Where necessary, we have corrected our interpretations and provided further clarification in the Results, Discussion, and Abstract sections to ensure that the manuscript is consistent with the evidence.

2. Questions for General Evaluation	**Reviewer's Evaluation**	**Response and Revisions**
Does the introduction provide sufficient background and include all relevant references?	Yes/Can be improved/Must be improved/Not applicable	Yes
Are all the cited references relevant to the research?	Yes/Can be improved/Must be improved/Not applicable	Yes
Is the research design appropriate?	Yes/Can be improved/Must be improved/Not applicable	Yes
Are the methods adequately described?	Yes/Can be improved/Must be improved/Not applicable	Yes
Are the results clearly presented?	Yes/Can be improved/Must be improved/Not applicable	We thank the reviewer for this comment. We have carefully revised the Results section, including the abstract and reporting, to improve clarity and interpretation.
Are the conclusions supported by the results?	Yes/Can be improved/Must be improved/Not applicable	We appreciate the reviewer's comments. We have revised the Results and Discussion sections to ensure that the conclusions are more clearly supported by the findings.

3. Point-by-point response to Comments and Suggestions for Authors

Comments 1: *Did the authors implement any procedures to ensure that overlapping (A–C) and non-overlapping (E–F) pairs were evenly distributed across serial positions in List 2? Serial position effects could interact with interference and should be considered.*

Response 1: We thank the reviewer for this thoughtful comment. In the experiment, both study and test orders were randomized to control for potential confounding variables,as clarified in the revised manuscript **(Section 2.4. Procedure, page 5–6, lines 218–240)**

Comments 2: *Table 1 reports only List 2 recall performance. However, it would be helpful to also report recall accuracy for List 1 (A–B) items in the overlapping condition. This would clarify the extent to which the initial encoding manipulation succeeded in producing differential baseline strengths.*

Response 2: We thank the reviewer for this helpful suggestion. You are correct that it is important to report recall performance for List 1 (A–B) pairs in the overlapping condition. In the revised manuscript, this has been explicitly addressed in Section 3.3. Recall Performance for A–B pairs in List 1 **(page 8, lines 301–313),** where we show that the manipulation of one versus three study repetitions was effective.

Comments 3: *The Discussion asserts that PI was stronger when A–B and A–C pairs had equal encoding strength, but the results do not support this claim. In fact, the delayed test suggests the opposite pattern: PI was eliminated in the equal-strength condition but persisted (albeit weakly) in the three-repetition condition. The conclusion that "PI was stronger under equal encoding" should therefore be tempered, as the interaction between encoding strength and test delay was not significant, even within the immediate test condition.*

Response 3: We sincerely thank the reviewer for this important comment. We acknowledge that our original interpretation was incorrect. As the reviewer rightly pointed out, the results did not provide evidence that increased encoding strength reduced proactive interference (PI). Specifically, the interaction between pair type and List 1 encoding strength was not significant **(p = .803; see page 6, lines 259–260)**. Therefore, we have corrected our interpretation accordingly.

In the revised manuscript, we have updated the Results section **(page 6, lines 258–260)** to remove the previous claim and to clarify the actual pattern of findings. We have also revised the Discussion, particularly Section 4.1. Proactive Interference and the Role of Test Delay **(page 9, lines 353–359)**, as well as Section 4.4. General Summary **(page 11, lines 436–438)**, to ensure that our conclusions are consistent with the data. Finally, the Abstract **(lines 15–17)** has also been revised to reflect this correction.

Comments 4: *Similarly, the claim that persistent PI in the 3x study condition after a 24-hour delay reflects stronger competition between the paired associates is not supported by the evidence, given the lack of significant interactions.*

Response 4: We thank the reviewer for this valuable comment. After re-examining the data, we acknowledge that only the interaction between test delay and pair type was significant, whereas the interaction between List 1 encoding strength and pair type was not **(page 6, lines 258–260)**. Accordingly, we have revised both the Results section **(page 6, lines 258–260)** and the Discussion, particularly Section 4.1. Proactive Interference and the Role of Test Delay **(page 9, lines 353–359)** and Section 4.4. General Summary **(page 11, lines 436–438)**, to ensure

that our interpretations are fully consistent with the data. Finally, the Abstract **(lines 15–17)** has also been revised to reflect this correction.

Comments 5:*The dual-process integration/differentiation framework proposed in the Discussion is interesting, but the experimental evidence does not clearly support one mechanism over another. The data show some attenuation of PI with delay in the equal-strength condition and a weak residual effect in the strong-encoding condition, but this could be explained in multiple ways. I recommend softening the theoretical claims and more explicitly acknowledging the limits of the current dataset.*

Response 5: We thank the reviewer for this constructive comment. After carefully re-examining the results, we agree that the current evidence does not allow us to clearly favor one mechanism over another. Accordingly, we have softened the theoretical claims in the revised manuscript and provided a more balanced discussion. In particular, we have added new considerations regarding the coexistence of retrieval dependence and retrieval competition **(page 10, lines 399–426)** and revised the conclusion section **(page 12, lines 479–503).**

5. Additional clarifications