



Dear Editors,

I am pleased to submit our manuscript titled “Criterial Learning and Feedback Delay: Insights from Computational Models and Behavioral Experiments” for consideration in the *Journal of Experimental Psychology: Learning, Memory, and Cognition*.

In this work, we develop and evaluate three novel computational models designed to explore the mechanisms underlying criterial learning. We test the predictions of these models in two behavioral experiments, focusing on the effects of feedback delay and intertrial intervals (ITI) on criterial learning in both models and humans.

Our results indicate that human criterial learning is significantly impaired by delayed feedback, but not by extended ITIs. The computational models suggest that these results align most naturally with mechanisms based on procedural or associative learning. This indicates that even in simple rule-based tasks, criterial learning may be driven by associative processes.

Given the importance of criterial learning across various decision models and the current gaps in understanding its cognitive and neural mechanisms, we believe this work will be of broad interest to the journal’s readership.

For expert evaluation, we recommend the following reviewers who possess expertise in criterial learning, category learning, and computational modeling:

- Dr. Carol A. Seger; Carol.Seger@colostate.edu
- Dr. Sébastien Hélie; sheli@purdue.edu
- Dr. Corey Bohil cbohil@ltu.edu

We affirm that this manuscript is original, has not been previously published, and is not under concurrent consideration elsewhere. All data and materials necessary for reproducing the reported results are available in our GitHub repository: https://github.com/crossley/crit_learn_delay.

We appreciate your consideration of our manuscript for publication in *JEP: Learning, Memory, and Cognition* and look forward to your feedback.

Sincerely,

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