May 20th, 2022

Ayanna Thomas, PhD

Department of Psychology

Tufts University

Medford, MA

Dear Dr. Thomas:

Dr. Mark Huff and I are submitting our manuscript entitled “Is Discriminability a Requirement for Reactivity? Comparing the Effects of Mixed vs. Pure List Presentations on Judgment of Learning Reactivity” for consideration as an original research article in *Memory & Cognition*.

This paper investigates the effects of study-list composition on Judgment of Learning (JOL) reactivity. Specifically, we compare reactivity for mixed study lists (i.e., related and unrelated word pairs in the same list) to pure-lists (i.e., only one pair type in a list). In doing so, we test two accounts of reactivity: The changed-goal hypothesis and the cue-strengthening account. First, the changed-goal hypothesis posits that reactivity is driven by a comparison process which causes participants to prioritize encoding related pairs at the expense of more difficult unrelated pairs. The cue-strengthening account posits that reactivity occurs whenever cues informing the JOL are available at retrieval and thus requires no comparison process. Across three experiments, we show that JOLs are reactive within mixed lists, but only when pairs are related, a pattern which replicates previous findings (e.g., Janes et al., 2018; Soderstrom et al., 2015). Importantly, this reactivity pattern extended to pure lists in which an “easy-difficult” comparison is absent. This pattern held regardless of whether related pairs were forward associates (Experiment 1), backward associates (Experiment 2), or symmetrical associates (Experiment 3). Finally, across experiments, frequency-of-occurrence judgments which similarly emphasize relatedness cues but do not require a memory forecast consistently produced reactivity patterns mirroring JOLs, regardless of whether participants studied mixed or pure lists. Taken together, our findings providing further support for a cue-strengthening account of reactivity rather than a goal-changing account.

We believe that our findings make substantive and novel contributions to the literature, through our mixed- vs. pure-list comparisons and our use of multiple types of related word pairs, rather than simply relying on only forward paired associates. This work is original and not under review elsewhere, and we disclose no conflicts of interest. We look forward to hearing about the suitability of our manuscript in *Memory & Cognition*.

Sincerely,

Nicholas P. Maxwell, PhD

School of Psychology

The University of Southern Mississippi

nicholas.maxwell@usm.edu

Ph: 601.266.5411

Cc:

Mark J. Huff, PhD

Assistant Professor

School of Psychology

The University of Southern Mississippi

mark.huff@usm.edu

Ph: 601.266.5411