June XX, 2022

Sarah Shomstein, PhD

Department of Psychological and Brain Sciences

The George Washington University

Washington, D.C.

Dear Dr. Shomstein:

My colleagues and I are submitting our manuscript entitled “Alternating Runs and Random Task-Switching Produce Similar patterns in the Consonant-Vowel/Odd-Even Task” for consideration as an original research article in *Attention, Perception, & Psychophysics*.

In this paper, we use the Consonant-Vowel/Odd-Even (CVOE) task to investigate the effects of task-switch presentation sequence. Participants first completed a set of pure task blocks before completing switch blocks in which the task changed predictably or randomly. We then assessed changes in mean error rates, response latencies (RTs), and local and global switch costs as functions of presentation sequence. We then further explore changes in RTs for trial types and switch costs through Vincentile and ex-Gaussian analyses. Overall, we show that local RT switch costs (i.e., switch vs. nonswitch trials) are inflated when switching is random, indicating that task-set reconfiguration processes are particularly taxed when an upcoming trial type is unknown. Global RT switch costs (i.e., nonswitch vs. pure trials), however, increased when switching was predictive, suggesting that task-set maintenance processes are additionally burdened when participants must also monitor their progress as they complete a predictive trial sequence.

We believe these findings provide novel and substantive contributions to the literature, particularly through our comparison of predictive and random task-switching and our additional inclusion of distributional analyses to further assess RTs. 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 *Attention, Perception, & Psychophysics*.

Sincerely,

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