



October 12th, 2020

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Dear Editors and Reviewers,

We thank the editorial board and reviewers for their comments on the manuscript and have edited the manuscript to address their concerns. In particular:

- 1. The manuscript has been edited for grammar and typos.
- 2. The introduction has been shortened while still containing enough information to inform the context and rationale of the new method, and now includes a statement of how we believe out method will be useful to other researchers. It also now includes a rationale for the use of pencil & paper tasks in Session C as requested by Reviewer #1. We also appreciate Reviewer #1's comments regarding TMS rationale, and have edited the introduction to clarify the rationale of isolating USN symptoms with TMS to avoid the screening biases of other studies as described. In addition, we updated the description of the neural correlates of USN with the references generously provided by Reviewers #2 and #3. Given the complex issues concerning personal, peri-personal and extra-personal USN subtypes brought up by both Reviewers #2 and #3, we have eliminated discussion of these specific subtypes from the manuscript in an effort to shorten the introduction.
- 3. An ethics statement is now included at the beginning of the protocol section.
- 4. The protocol section has been revised to include more specific details regarding how each step is to be performed, particularly with regard to the TMS apparatus and the cortical stimulation steps. In addition, the VR task has been clarified as requested by Reviewer #1 to include details about the tutorial and the stopping conditions of each trial. We have included acknowledgement that the ideal way to conduct the line bisection task would be to present each line on a separate sheet of paper, as rightfully pointed out by Reviewer #3. We have also included estimated durations for each element of the protocol in a revised Table #1, as requested by Reviewer #3. With regard to Reviewer #3's concern regarding the use of 110% MT for our stimulation protocol, we refer them to Shah-Basak (2018); as mentioned in the introduction, we attempted to replicate the TMS methods employed in that study.





- 5. The results section has been revised to include a short description of the participants and the overall experimental procedure, as requested by Reviewer #1. We agree with Reviewer #2 that more subjects should be assessed, and have stated so explicitly in the results section, but agree with Reviewer #3 that these results are representative only and are appropriate for a methods-focused manuscript.
- 6. The discussion section has been revised to expand upon critical steps, limitations, and future directions for the application of this method. It has also been expanded to include a suggestion of how VR tasks like the one we describe could be applied to patients who have mixed neurologic deficits, as requested by Reviewer #1. We have also added an allusion to the debate concerning whether elements of spatial processing are mediated by the temporal vs. parietal lobe and how our results may contribute to this debate, as pointed out by Reviewer #2.
- 7. The references section has been edited for consistency in citation style as recommended by Reviewer #2.

We believe that with these modifications the manuscript is now suitable for publication in the Journal of Visual Experimentation.

Sincerely,

Peter Schwab, MD Corresponding Author

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