Dear Prof. Brysbaert,

We are submitting our manuscript entitled “Reliability Assessment of the Self Perceptual Matching Task as a Measurement of the Self-Prioritization Effect” for consideration for publication in Behavior Research Methods. All authors have approved for manuscript submission and have no potential competing interests to disclose. This manuscript is not submitted to any other journals.

The reliability of cognitive tasks has gained much attention in recent years, mainly driven by the reliability paradox reported in several studies. The reliability paradox revealed that, despite robust experimental effects, cognitive tasks often exhibit low reliability when assessing individual differences. In our preregistered study, we extended this line of research to an important cognitive task ---- the perceptual Matching Task (SPMT). SPMT is a widely used task for studying the self-prioritization effect (SPE) and is increasingly used for assessing individual differences in the self-prioritization effect. However, the reliability of SPMT as a measurement of SPE has never been examined before.

In this paper, we systematically assessed 24 SPE measures in SPMT from 17 datasets (N = 805), using both split-half reliability and test-retest reliability. Our results revealed a robust group-level SPE effect across datasets. Meanwhile, we found unsatisfactory reliability for these SPE measures. In other words, we found a reliability paradox in SPMT. Our results provided the first empirical assessment of the reliability of SPMT and will serve as a benchmark for researchers in the field. We also offered a few practical recommendations and cautions based on our findings.

This study aligns well with the scope and objectives of Behavior Research Methods as it provided important methodological insights to researchers in the field. We greatly appreciate your consideration of our manuscript.

We recommend the following experts as potential reviewers, all of them has no conflict of interest:

1. Thomas Pronk

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Reason for Recommendation: Thomas Pronk has extensive expertise in our research area, demonstrating his proficiency in critically evaluating research methodologies and findings.

1. Craig Hedge

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Reason for Recommendation: Craig Hedge has published relevant research in reputable journals, underscoring his credibility and knowledge in the field.

1. Sam Parsons

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Reason for Recommendation: Sam Parsons has a strong publication record in respected journals, showcasing his expertise and credibility in the field of study.

1. Ian Hussey

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Reason for Recommendation: Ian Hussey’s substantial research contributions in our field demonstrate his ability to critically evaluate research methodologies and findings.

1. Sercan Kahveci

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Reason for Recommendation: Sercan Kahveci has conducted extensive research in our area of interest, highlighting his expertise in critically evaluating research methodologies and findings.

Sincerely,

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