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DOCTORAL DISSERTATION REVIEW

Dissertation title: Magnitude and Context Effects in Preference Reversals

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The dissertation being reviewed examines preference reversal (PR), a phenomenon in which preferences are inconsistent in formally equivalent situations. For example, a person may choose option A over option B, but when asked to assign monetary values to both options, they may assign a higher value to option B. The reviewed dissertation consists of four main studies that form a coherent thesis. These experiments aim to answer the following questions: how does the magnitude effect impact PR (Experiment 1), what theoretical mechanisms might explain the observed phenomena (heuristics or a descriptive theory) in binary choice (Experiment 2), and what is the role of episodic memory and/or the attraction effect in reducing PR (Experiments 3 and 4). In addition, in section 9 of the thesis, three meta-analyses are presented that provide a broader perspective on the obtained results. Overall, the proposed studies form a cohesive line of research on PR, starting with the investigation of the basic properties of lotteries, moving on to the examination of potential mechanisms explaining PR from the perspective of psychological studies on memory, and ending with an attempt to show the PR phenomenon from the perspective of meta-analyses. Because I have expressed main concerns regarding the previous version of the thesis in my first review, first I will briefly summarize all major changes that were introduced to the manuscript.

- 1) The clarity of the thesis has been improved, especially by reducing appendices, which were previously often redundant.
- 2) Informal review-like meta-analyses have been replaced with three formal meta-analyses, which have been included in section 9 of the manuscript.
- 3) The introduction section has been updated and now more closely reflects the theoretical aim of the present thesis.
- 4) Unnecessary hypotheses that went beyond collected data have been moved to the "Future Directions" section.
- 5) Previous parametric analyses have been replaced with relevant nonparametric techniques.
- 6) Online supplementary materials have been corrected.
- 7) A section describing statistical methods has been added to the manuscript.
- 8) The ending sections (10, 11, and 12) have been rewritten and corrected.

Considering the aforementioned changes to the previous version of the reviewed thesis, most, although not all, of the suggested changes were made. Although not all changes were made, all of my previous suggestions and concerns were addressed and explained sufficiently in the "Responses to Reviews" provided by the Author. For example, although I am still opposed to combining results from offline and online studies (see: Experiment 2), this issue is discussed in the present version of the thesis and additional analyses are provided. Given the global situation of COVID-19 pandemic and explicit discussion of this issue, I accept the provided solution. Similarly, justification was provided for Experiment 4, in which participants responded to stimuli presented in PDF files. While this is not the best methodological solution for obtaining reliable and valid experimental results, acknowledging limitations in the design section is, in my opinion, sufficient.

Although I see a major improvement compared to the previous version, some sections of the thesis are still vague. For example, I would like the Author to explain why they decided to include Appendix I and the three-error-rate model in the thesis, as they are not presented or even discussed in the main text (Appendix I is only mentioned on page 24). The same is true for appendices F and H, which are only barely mentioned in the manuscript without providing a rationale. The most underdeveloped section of the thesis is the general discussion section, which only spans two pages. While I believe that sections 11 and 12 (with summary, limitations, further research proposals, and conclusions) are part of the general discussion, the results of the present research are only summarized briefly, with little discussion (the exception to this rule is the discussion of episodic memory capacity as an explanation of PR at the bottom of page 145). This is partially compensated by the discussions linked to specific experiments (1-4), which are generally well written and not only summarize results, but also discuss and confront them with other approaches and findings. However, the general discussion does not relate directly to the three-error-rate model, loss aversion rule, or even to section 9, which presents meta-analyses (these are only summarized on page 147).

Conclusion

The theoretical introductory sections are well written. The hypotheses are derived from theory or existing research. The structure of the thesis has been improved, and the empirical sections, especially those where results are presented, have been corrected and now present properly chosen analyses. The entire dissertation is written to high language standards. The presented work can be considered unique and novel in a theoretical sense, with a novel approach to the phenomenon of preference reversal. In my opinion, most of the previous shortcomings of this work have been corrected, and those that remain, such as the underdeveloped general discussion, are of secondary importance. To properly cite legal documents, I do so in the

language that they were written. Stwierdzam, że przedłożona do recenzji rozprawa doktorska mgr. Yong Lu odpowiada warunkom określonym w *art. 13 ust. 1 Ustawy z dnia 14 marca 2003 r. o stopniach naukowych i tytule naukowym oraz o stopniach i tytule w zakresie sztuki*, oraz jednocześnie wnoszę o przyjęcie rozprawy doktorskiej i dopuszczenie mgr. Yong Lu do dalszych etapów postępowania.

dr hab. Wojciech Białaszek, prof. Uniwersytetu SWPS