Review of: "The Bayesian Range: Simple Methods for Incorporating Bayesian Reasoning into Psychological Research for Psychologists and Psychology Students Unfamiliar with Bayes' Theorem"

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Potential competing interests: No potential competing interests to declare.

This study focuses on the application of Bayes' theorem in psychology, particularly for non-experts. It proposes a simplified version of Bayes' theorem, utilizing common statistical values, to calculate the probability of a null hypothesis being false. By incorporating post-hoc statistical power, selected alpha levels, and subjective probabilities, researchers can estimate the likelihood of rejecting a null hypothesis accurately. The paper suggests two approaches for incorporating Bayes' theorem into research: calculating posterior probabilities for a range of null hypothesis probabilities or starting with a low probability of the null being false and updating it with replications. This approach promotes cautious reporting and encourages multiple replications before drawing confident conclusions. Although this paper is appropriate, there are some improvement points with it.

* Separate literature review, introduction, background, and research flow sections.

* Utilize a table to summarize the literature review and represent the current gaps. Then, show the role of this study in closing some gaps.

* It is better to highlight the contributions and novelties of this paper in comparison with the literature review to show the current gaps and importance of this paper in a subsection.

* Present more details about the proposed model in this study.

* Present statistical tests to determine whether the proposed methods and other methods are statistically significantly different. Add more case studies to validate your results.

* It is better to update and review more references using up-to-date papers. A table to summarize the literature review is suggested, as well.

* In addition, the structure and text of this paper needs to be revised in a way that is more interesting to readers.

I hope these comments improve the quality of this paper in the next revisions.