

Review of: "Intersections of Statistical and Substantive Significance Under a True and False Null Hypothesis"

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Potential competing interests: No potential competing interests to declare.

This work focuses on the important problem concerning the misunderstanding and abuse of p-values and statistical inference for students and applied researchers who are not very familiar with statistics. Furthermore, the empirical approach using simulated data sets is effective in demonstrating the practical implications of statistical significance, especially in the context of small sample sizes.

First of all, I would like to congratulate the author on this research. The manuscript is well-written, quite interesting, and has some value. I would just like to make a few observations and suggestions for the author to consider:

1. The first comment concerns the text immediately after the keywords: it is not included in any section; perhaps it would be better to create an introductory section or something similar.
2. The number of references is a bit few. In my opinion, there should be at least thirty-five.
3. In the "Methodology" section, the null hypothesis is specified but not the alternative hypothesis; perhaps it would be better to include it for completeness.
4. The power of the test should be better explained and explored further.
5. I think that the discussion on the use of p-values could be expanded, including more recent papers on the same topic.
6. Perhaps the presentation of the results can be improved. Figures and tables are very useful for visualizing the results, but the discussion and explanation should be as detailed.
7. At the end of the manuscript, for completeness, it would be better to include a small paragraph in which suggestions for further study can be listed.

Finally, I would like to thank you for the opportunity to review and comment on this research, and addressing the abovementioned aspects can strengthen this investigation.