

Review of: "Detection and Correction of Likert Scale Multiplicative Response-Style Bias"

Zahra Shirazi¹

1 Dana-Farber/Harvard Cancer Center, Boston, United States

Potential competing interests: No potential competing interests to declare.

Your paper is very impressive, with interesting questions that are fully covered in different parts of the paper. The background and literature review are comprehensive and demonstrate how your work is different from other studies. The research questions are described very well and clearly.

Though, I have some comments regarding the statistical analysis and theory part of your paper that are listed as follows:

- You have mentioned that least squares estimation outperforms Bayesian estimation. Can you explain more details:
 either in the method section by comparing any performance criteria for both that shows the mathematical
 outperformance of one to the other, or through the comparisons in the simulation studies to demonstrate the better
 performance of least squares estimations.
- 2. There exist different algorithms for weighted least squares, such as Newton Raphson's, Fisher Scoring, etc. You could include more detail about the algorithm or optimization function (in R) that you have used for the analysis and the stopping rule.
- 3. Could you provide more description/detail about selecting the range of the constraints? For example, by more description about why some ranges are selected or by comparing the results of different ranges in simulation studies or on the real data analysis (to show that the results are somehow robust to different ranges or how sensitive they are).
- 4. Some recommendations about simulation studies are better to be considered. In the table, they are the results of n=100; however, in the context, only n=300 is mentioned. You could include both sample sizes in the text.
- 5. Another recommendation for the simulation results is that RMSE and mean absolute error are both performance criteria. You have used both of them with almost the same numerical results, which shows they are equivalent. Could you suggest specific examples or scenarios where the choice of RMSE over mean absolute error (or vice versa) might lead to different interpretations of the results?
- 6. In this context, only RMSE is mentioned. It might be better to mention both performance measures if they are both included in the table.

Congratulations on your interesting study!

