Response to Recommender and Reviewers

Recommender Chris Chambers

Three of the four reviewers were available to evaluate your revised submission. As you can see, the good news is that all are broadly satisfied and we are now within reach of Stage 1 in-principle acceptance (IPA). There is one remaining statistical issue to address in Michèle Nuijten's review, which I agree should be resolved before we proceed further. I will assess your response and revision at desk and we should be able to then quickly issue IPA.

We thank you and the reviewers for evaluating our revision, and we are pleased that you all were broadly satisfied with our prior revisions and responses.

We have carefully considered the suggestion by Michèle Nuijten and have responded below. To summarize, we argue that both separate and simultaneous models are informative and will add to our understanding of how researcher characteristics are related to generalizability prediction accuracy.

Please note that we have also made a few minor edits to the manuscript and supplementary materials to reflect updates to the Moral Experiences project that is being included in the research.

Michèle Nuijten

I thank the authors for their thorough revision of their paper. All my comments were addressed sufficiently. I do have one remaining question about the planned regression analysis, but I leave it to the authors/editor to evaluate whether this requires further adaptations in the manuscript.

In response to comment 7 of my review, the authors now include an additional model in which they include all six researcher characteristics to predict generalizability of prediction accuracy. However, they also still plan on fitting six separate models for each of the individual researcher characteristics. I do not really understand this choice.

If I understand correctly, the goal is to identify which characteristics are (the most) important to predict generalizability of prediction accuracy. In my view, it will be hard to interpret any of the estimated coefficients in these separate models to assess importance, because they are not controlled for any influences of the other five characteristics.

I may miss something here, but I would argue to only include the "omnibus" model with all six researcher characteristics included at the same time, and omit the six separate models.

Thank you for your review and feedback. We have chosen to include both the simultaneous model testing all six researcher characteristics and the six separate models for each of the individual researcher characteristics because these two types of analyses provide unique information about the research question (i.e., what researcher characteristics are associated with generalizability prediction accuracy). While you described our goal as assessing the importance of these characteristics, we also aim to identify what, if any, of the characteristics are associated with prediction accuracy individually.

We acknowledge that the separate models provide limited results because controlling for the other characteristics might eliminate individual effects. For any researcher characteristics where the separate model reveals a statistically significant effect of the characteristic, but this same characteristic is no longer a reliable predictor when included in the simultaneous model, we will conclude that the characteristic does not independently relate to accuracy after accounting for the other characteristics. Still, knowing that, for instance, intellectual humility is associated with prediction accuracy when considered separately is interesting in and of itself, especially given the lack of prior research on how research outcome predictions relate to such individual differences.

Alternatively, a given researcher characteristic may not individually predict accuracy but emerge as a reliable predictor in the simultaneous model. The direction of a relationship may also reverse across model types. In such cases, the added knowledge of the separate test result will allow us to qualify and better understand the result from the simultaneous model.

In our revised manuscript, we have clarified the purpose of the separate models and added a justification for our choice of including both types of tests.

p. 26 (edits/additions in bold), "Tested characteristics will include prediction confidence, involvement in the project, highest degree, self-rated expertise in the project subfield, intellectual humility, and actively open-minded thinking. These characteristics will be added as predictor variables and tested in separate models **to examine whether they are each individually associated with accuracy**. We will also include all six variables in the same models to **test** whether they independently predict accuracy. **We chose to include both separate and simultaneous tests of these variables in our analyses to provide more comprehensive results regarding their relationships with accuracy.**
        If we find an effect of a tested researcher characteristic on accuracy scores, we will conclude that prediction accuracy relates to that characteristic. The impact of a given researcher characteristic on accuracy will be inferred by the presence and magnitude of its effect across analyses."

Jim Grange

The authors have addressed the comments I raised in the previous review to my satisfaction. Good luck with the research - I'm really interested in seeing the outcome.

Thank you!

Matthias Stefan

While I was critical in my detailed comments, I already mentioned that this is an interesting research project and that there is much to like about the Registered Report -- already in Stage 1 and this general assessment has not changed.

Moreover, I think my comments have all been sufficiently and convincingly addressed. I already said that my minor points often are a matter of taste and you (the authors) disagree with some of them, while you clarify others. In the former case, your arguments are considerate. More importantly, I think my major concerns are well addressed. In some cases I seem to have missed some details, but it is helpful to guide the reader. In this regard, I think you have managed to make the Report more reader friendly.

I have no more comments and am looking forward to reading about the findings in this study.

Thank you!