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April 15, 2024

RE: Cross-cultural relationships between music, emotion, and visual imagery: A comparative study of Iran, Canada, and Japan [Stage 1 Registered Report] (doi:10.31234/osf.io/26yg5)

Dear Dr. Schwarzkopf,

Thank you very much for the opportunity to submit a final round of revisions on our manuscript. We are grateful for the reviewer's positive recommendation, and for your catching that important typo and the need for some description of our exploratory variables. We have revised our manuscript accordingly, with point-by-point responses below (our responses in blue below).

The manuscript has made great improvements and we look forward to receiving in-principle acceptance if you deem it appropriate in this stage.

Sincerely,

Patrick E. Savage (on behalf of the authors)

Decision for round #4: Revision needed

Final changes required

Dear authors

As you can see, the final reviewer has now recommended in-principle acceptance of your Stage 1 RR manuscript. However, I notice that there are still some issues to be fixed before I can grant IPA. Specifically, **under Analysis Plan 1.2 you list the same hypothesis twice**. There may be other issues that I might have missed, so please carefully check the manuscript.

Thank you for catching this typo! Analysis Plan 1.2 has now been corrected to match Table 1 ("2. Increasing tempo consistently increases density of visual imagery across cultures."

Moreover, looking through the Appendix with the survey materials it occurred to me that **the survey is considerably longer than one would expect from reading your Methods**, probing aspects such as colour associations, emotion type, etc, and the Goldsmiths Musical Sophistication Index. Given this is therefore a considerably richer data set than strictly needed to address your preregistered hypotheses, some caution is advised. Obviously, it is perfectly fine to collect additional measures for further exploratory analyses, which can possibly be included in Stage 2 as long as they are explicitly labelled. It is also sensible to limit the preregistration to clear-cut predictions you can make now.

However, given the large amount of additional information it is important to avoid the scenario where the Stage 2 article consists mostly of exploratory analyses. This would in my view undermine the purpose of conducting a Registered Report in the first place. One could also argue that the methods description should contain the necessary details of all the measures being collected. I apologise for not spotting this earlier (but I am somewhat reassured by the fact that the reviewers didn't either).

Given the late stage and the fact that the preregistered study itself is now quite straightforward, I don't think this requires an extensive revision. For the Goldsmiths questionnaire, a short sentence with the appropriate citation explaining its inclusion will suffice. For the other measures in your actual survey, you could possibly even keep that very succinct, simply stating that the survey contains other measures, briefly list what they are, and that they are collected for future hypothesis generation etc but will not be presented in the Stage 2 article. **If you plan on exploratory analyses of any of these data, more detail** **about them should however be provided in the Methods.** Even then, I don't think this calls for extensive rewrites - these are simple survey questions that can be described easily.

Keep in mind that all exploratory analyses in Stage 2 will be subject to peer review and could possibly constitute grounds for rejection.

Thank you for catching this point and for this important reminder about the role of exploratory analyses in RRs. Note that our understanding and experience with RRs/PCI-RR is not that exploratory analyses "will not be presented in the Stage 2 article", but simply that they should not be relied on to draw strong conclusions and must be clearly distinguished from the confirmatory analyses that are relied on to draw strong conclusions. We have added a new section ("3. Exploratory Variables") accordingly as follows:

3. Exploratory variables

In addition to our primary variables described above that will be collected for confirmatory hypothesis testing, we plan to also collect additional variables for post-hoc exploratory analyses and future hypothesis generation (see Appendix 2 for full details of all variables). In addition to standard participant demographic variables (e.g., age, gender, occupation), we plan to collect variables related to musical experience including the Goldsmiths Musical Sophistication Index (Müllensiefen et al., 2014) and related to visual arts and emotions including synaesthesia, aesthetic preferences, and music-colour associations (following Palmer et al., 2013). These exploratory variables will not be used to draw any strong conclusions in our Stage 2 Registered Report.

As always, please contact me directly if you have any questions or comments on this.

Best wishes Sam Schwarzkopf

by D. Samuel Schwarzkopf, 08 Apr 2024 21:14

Manuscript: https://psyarxiv.com/26yg5/

version: 5

Review by Elena Karakashevska, 08 Apr 2024 20:08

This is a revision of a stage 1 manuscript: Below is my original summary of the manuscript which still stands:

This is a potentially interesting paper. Authors have noticed the lack of research in cross-cultural links between visual imagery, music and emotion. The authors aim to add to the literature by doing a cross cultural study to test for differences in emotional arousal and perception of density of visual imagery, across cultures by manipulating tempo in solo and

group performance pieces. The authors aim to conduct this study online and compare within subjects effects only.

Review

This is a compelling revision. The authors have done a good job of addressing concerns raised in the initial round of reviews. I have no major remaining concerns.

Thank you for this positive recommendation, and thanks again for your multiple rounds of feedback, which have greatly strengthened this Registered Report.