

Dr. Chris Chambers
Recommender
PCI Registered Reports

November 21, 2023

Dear Dr. Chris Chambers,

Thank you for your time and effort. Now we are resubmitting our Stage 2 manuscript titled “The Medusa effect: A registered replication report of Will, Merritt, Jenkins, and Kingstone (2021).”

We are very pleased with the feedback and decision. We have revised the manuscript based on the reviewers’ and your comments and we have uploaded a copy of the original manuscript with all the changes colored in blue. Below are responses to individual comments.

Replies to the comments by Dr. Chris Chambers

Two of the reviewers from Stage 1 kindly returned to evaluate your Stage 2 manuscript and both are very positive about the completed work. As you will see, one of the reviewers (Alan Kingstone) offers some comments on the Introduction. To minimise risk of hindsight bias there are strict limits on the extent to which the introduction section of a Stage 2 submission can be altered. In revising to address the reviewer's comments, please therefore limit any changes to those necessary to (a) correct factual errors or (b) make crucial clarifications that would otherwise lead to readers being misled. Please refrain from shortening any sections or making other stylistic changes, as the opportunity to make such modifications to the introduction was at Stage 1.

I would also suggest one additional revision (not suggested by the reviewers): in the study design table (pp28-30), it would be helpful to add a column to the far right called "Outcome" which reports in simple terms whether each hypothesis was confirmed or disconfirmed. Please also give this table a title and caption. (e.g. Table [N]. Study Design and Outcomes).

Reply:

We sincerely thank you for completing the review of our Stage 2 manuscript in a timely manner and for your helpful comments. We are also thrilled with the very positive feedback from the two reviewers.

We agree with you that it is not in accordance with the principles of RR to tamper with the introduction, which should have been fixed in Stage 1, and that even if this is done, this should be carried out with great caution. Indeed, we have done just that, as detailed below. However, while we are confident that it does not affect the story in any way, it is possible that we may have slightly over-corrected it. If that is the case, please let us know so that we can

revert them. Just from the standpoint of accuracy, his comments 4 and 5 should at least need to be addressed.

In addition, we have made the corrections to the design table that you additionally pointed out to us. Thank you for noting this issue.

Replies to the peer review comments by an anonymous reviewer

The authors have done a great job conducting the planned experiments as reported in the previous version of this work. All experiments and results are reported with precision and sufficient details. I am happy with this new, updated, paper, and I can therefore suggest its acceptance in the current form.

Reply:

Thank you very much for your thoughtful and detailed review of our work. We are truly grateful for the time and effort you have put into evaluating our manuscript. It is heartening to hear that you are satisfied with our Stage 2 manuscript.

Replies to the peer review comments by Dr. Alan Kingstone

I have seen multiple versions of this paper, primarily before the data was collected, and am happy to see it come to fruition. I've included some minor comments on the paper's introduction, where I think things are a little muddled, but otherwise I have nothing to add. I think that the paper will make a nice contribution to the literature.

Reply:

Thank you for your continued interest and feedback on our paper through its two stages. We are so glad to hear that you are pleased with its additions in Stage 2. Your comments on the introduction are quite helpful, and we carefully checked them to clarify any muddled points.

1 p4

Besides the apparent fact that the picture of a person would seem to have less realness than a person in reality for losing some features during pictorial abstraction.

[AK]I didn't quite understand this sentence. I believe the intent is that some aspects of a real person are lost when they presented in a picture.

Reply:

Thank you for helping to clarify our statement. Based on your suggestion, we have revised the sentence to better convey our intended meaning. It now reads: "*Focusing on the aspect of realism, a person's image in a picture may seem less realistic than their actual presence, due to the loss of certain aspects in the process of pictorial abstraction.*" We believe this change addresses the point you raised.

2 p4

This phenomenon is strikingly intriguing because it suggests that, when people evaluate the humanness of others, they may integrate information about the dimensions of the world, including their own. Specifically, the feature itself may considerably shape the perception, and the abstraction of information presentation is also an equally indispensable influencing factor which underlines the effect of dimensions the information presents.

[AK]not quite clear on what is intended here.

Reply:

Thank you for pointing out the need for greater clarity in our explanation. We understand that the use of the term 'dimension' might have been confusing, especially since it was used in different contexts within the manuscript.

To address this, we have revised the section to replace 'dimension' with more specific terms like 'context' and 'level of abstraction'. The revised sentence now reads: "*This phenomenon is intriguing as it suggests that when evaluating the humanness of others, people may integrate and interpret information based on the context or level of abstraction in which it is presented. In other words, the context in which a person is perceived – whether in real life or within a photograph – significantly influences how we perceive and interpret their humanness. The abstraction of information, or how it is presented and perceived in different contexts, plays a crucial role in this process.*"

We believe this change more accurately conveys our intended meaning and makes the concept clearer for the reader.

3 p4-5

While the fictional Medusa is L1 ("L" is short for level, referring to the levels of abstraction), Perseus sees Medusa on the reflective shield as L2.

[AK]Not sure if that's actually correct. To the "real" Perseus Medusa would have been at L1. But a picture of Medusa's reflection would be comparable to L2. However, as the actually Medusa effect involves pictures not reflections, perhaps it would more precise to introduce the levels when discussing pictures, and just mention that the fictional Medusa story captures the general intent that mind perception declines with abstraction. Personally, I would suggest reducing this general section, which involves a rather lengthy discussion of Medusa, because it's not really *that* important to know that Perseus was assisted by Athena and Hermes, and so on and so forth. Nor does it lend itself easily to a description of the levels of abstraction, as illustrated by the fact that I am not sure that the authors have it quite right. Given that the authors cover the levels below, I would suggest reducing the amount of text here.

Reply:

Thank you for your comments on the Medusa analogy. We appreciate your suggestion to clarify the levels of abstraction in our discussion. In response, we refined the section to more directly

link the mythological reference to our study's focus on mind perception and abstraction, without reducing the overall content as per the recommender's guidance. This revision would ensure the analogy is both relevant and concise, enhancing its effectiveness in our manuscript. The following is a revised version of that section:

Will et al. (2021) describe the 'Medusa effect' as a phenomenon where mind perception diminishes with increased abstraction, drawing on the Greek myth of Medusa. In this myth, Medusa, a figure whose gaze turned those who directly saw her into stone, was defeated by Perseus. Perseus's use of a reflective shield to view Medusa indirectly can be metaphorically related to the concept of abstraction in mind perception. While Medusa herself represents a direct, less abstract encounter (L1), the reflection in Perseus's shield, akin to viewing a picture, symbolizes a more abstract level (L2) where mind perception is reduced.

4 p5

For example, pictures with eyes can attract our attention (Friesen & Kingstone, 1998).

[AK] This is not quite correct. The Friesen & Kingstone study cited here suggested that eyes direct attention elsewhere (e.g., in the direction that they are looking towards).

Reply:

We appreciate your pointing out the mistake in our reference to the Friesen & Kingstone study. It has been corrected to: "For example, pictures with eyes can reflexively shift our attention elsewhere (Friesen & Kingstone, 1998)." Thank you for your help in ensuring the accuracy of our work.

5 p5

(although reproducibility is debatable)

[AK] this point should be referenced

Reply:

Thank you for pointing out the need for a reference to support our statement on the debatable reproducibility of the findings. We have now included relevant citations to strengthen this point in our manuscript.