

Peer Review Comments

Article: Giessner, S. R., and Schubert, T. W. (2019). Power and Vertical Positions in an Organization Chart: A

Pre-Registered Replication Report of Study 3a and a Modification of Study 1a,

Giessner & Schubert (2007). *Collabra: Psychology*,

5(1): 25. DOI: <https://doi.org/10.1525/collabra.216>

Article type: Original Research Report

Editor: Simone Moran

Article submitted: 14 December 2018

Editor decision: Accept submission

Revision submitted: 19 April 2019

Article accepted: 25 April 2019

Article published: 07 June 2019

Responses for Version 1

Reviewer A:

1) General comments and summary of recommendation

Describe your overall impressions and your recommendation, including changes or revisions. Please note that you should pay attention to scientific, methodological, and ethical soundness only, not novelty, topicality, or scope. A checklist of things to you may want to consider is below:

- Are the methodologies used appropriate?
- Are any methodological weaknesses addressed?
- Is all statistical analysis sound?
- Does the conclusion (if present) reflect the argument, is it supported by data/facts?
- Is the article logically structured, succinct, and does the argument flow coherently?
- Are the references adequate and appropriate?:

I want to enthusiastically recommend publication of this piece. This is an exemplary demonstration of critically re-examining a research finding in light of null replication, and in doing so clarifying theory and advancing the research area. Despite initial personal disappointment, the authors took that information to heart, reconsidered aspects of the theory, and rigorously tested the adjusted procedures.

I think the workflow demonstrated here is ideal: Low-investment pilot test of the core idea (pilot test for Study 1), commit to a full-fledged pre-registered replication (Study 1), and finally expand on that with an adjusted procedure (Study 2). A major strength of this article is the methodological rigor, especially as it relates to open science standards. The pre-registrations are clear and precise, the materials are provided in a readily usable format, and data and analysis scripts are publicly available.

I think the whole episode is a strong demonstration of science operating correctly, and ultimately results in a better understanding of this relationship and allows future researchers to investigate it more meaningfully.

My only small quibble (and I leave this entirely up to the authors whether they want to address this comment or not) is with the last sentence: "In hindsight, we should have not only be more cautious when publishing the original paper in 2007, but we should also have pointed out that this study tests a somewhat unusual version of the spatial elevation hypothesis by manipulating magnitude beyond rank."

I certainly defer to the authors on whether the original Study 1a was an unusual version of the procedure, but I do think it's notable that, at least at the time the ML2 studies were implemented, this was viewed as a valid test of the vertical position and power hypothesis. In some ways I think this line steals some steam from the information gained in the authors' present manuscript.

Finally, I wholeheartedly agree with the authors in hoping that the prominent failure to replicate in ML2 isn't viewed as a death knell for research in vertical position and power perception (or, on its own, as the death knell for any of the studies that failed to replicate - or, conversely, interpreted as proof that the theories underlying the successful replications are 100% accurate and unquestionable). That sort of failure to replicate should prompt exactly this sort of follow-up, and to the extent I can I'll try to associate the present publication back to the ML2 paper.

My sincere thanks to both authors for this work.

2) Figures/tables/data availability:

Please comment on the author's use of tables, charts, figures, if relevant. Please acknowledge that adequate underlying data is available to ensure reproducibility (see open data policies per discipline of Collabra here):

Everything looks solid. Data are readily available, and SPSS syntax is provided and looks sensible to my eye (although I don't have a license so I didn't actually run the code).

3) Ethical approval:

If humans or animals have been used as research subjects, and/or tissue or field sampling, are the necessary statements of ethical approval by a relevant authority present? Where humans have participated in research, informed consent should also be declared.

If not, please detail where you think a further ethics approval/statement/follow-up is required.:

Yes

4) Language:

Is the text well written and jargon free? Please comment on the quality of English and any need for improvement beyond the scope of this process.:

Yes, the manuscript is clear and well written.

Reviewer B:

1) General comments and summary of recommendation

Describe your overall impressions and your recommendation, including changes or revisions. Please note that you should pay attention to scientific, methodological, and ethical soundness only, not novelty, topicality, or scope. A checklist of things to you may want to consider is below:

- Are the methodologies used appropriate?
- Are any methodological weaknesses addressed?
- Is all statistical analysis sound?
- Does the conclusion (if present) reflect the argument, is it supported by data/facts?
- Is the article logically structured, succinct, and does the argument flow coherently?
- Are the references adequate and appropriate?:

First, I have to note that I have a history of collaboration with both authors (and published several papers with Thomas Schubert). I expect the editor is aware of this history. We are not currently collaborating and feel I am able to objectively evaluate this manuscript.

That being said, it would be difficult for me not to be enthusiastic about authors who examine a failure to replicate their previous work, and do so in a theoretically driven and constructive manner. I think this paper is really exemplary on how authors can use a failed replication study as a starting point to examine possible reasons. I find the predictions theoretically compelling, and the results convincing. As a consequence, I only have relatively minor suggestions for improvement. I have two slightly larger points (the empirical basis of the evidence) and the conclusions about a magnitude based mechanism. These can be easily resolved by rewriting those sections.

I don't think a sentence such as "plenty of previous research has shown" actually says anything (regrettably). Given publication bias, we could have 200 studies published without any true effect (e.g., ego-depletion). So you need to make a stronger argument. You write "Elevation in space interferes with judgments of power (Schubert, 2005)" but here you take a theoretical explanation as proven based on an empirical finding. The empirical finding might also be explained by other mechanisms (e.g., polarity correspondence, Lakens, 2011). The header of this section says 'theoretical background' but it is a mix of empirical and theoretical statements. I am fine with making only theoretical points and explaining the basis for the theoretical prediction. But if you also want to claim that this theoretical view is strongly empirically supported (maybe in a second paragraph) you need to do more than citing some individual studies.

You say it remains unclear whether magnitude plays a role as well. I agree, but you might want to add a sentence or 2 explaining in more detail what the differences.

Your hypothesis 1 contains both the theoretical idea and the specific operationalization. I think you need to remove the first. You are testing the hypothesis that "Information about a manager's power should be reflected in the positioning of the manager on a vertical dimension in space (i.e., y-axis)" and you are assuming, not hypothesizing, that this is "because power is embodied in a vertical dimension in space." Keeping these two aspects apart makes it clearer which hypothesis you are testing (the idea might still be true if this operationalization is not).

You write: "Magnitude of that elevation did not matter – at least in the absence of direct comparison (i.e., in a between-subjects design), all differences were equally meaningful."

I think this is premature. First of all, to conclude the absence of an effect, you would need equivalence testing – you can not conclude an effect is absent based on $p > .05$. Then the question is which effect you would have predicted – I think quite a small effect (given the subtlety of the manipulation). So, it should at least be possible the some small effect exists. The question is if you think this effect is too small. Because you do not report effect sizes and their CI in study 2, I do not know how large the effect is, and which effects are excluded. I expect some interesting effect sizes can not be excluded. If so, be more tentative.

Minor:

You write: which is also within the interval of the current effect size – so please report CI for the effect sizes. In study 2 there are not even effect sizes, so add all info and interpret. It might also be interesting to see which direction of the effect is larger.

You write: Thus, in both conditions, the leader was on average placed above the lower boxes. – can you interpret this after the statistical tests.

You write as hypothesis 2: The target leader will be evaluated as more powerful if he is presented above the other leader – why is the leader a he?

You talk about the sample sizes in terms of the total N needed – but it would be nice if you could talk about the n per condition instead. If you plan to collect 450, these are divided over 4 conditions, correct?

You write: “In this way, we could test whether judgments of power are just be influenced by vertical rank order or whether it is magnitude of the vertical distance matters.” – possibly test, but it is also possible there is some ceiling effect and the paradigm is not the best test of the hypothesis.

Spelling:

staid the same > stayed

y-coordinate > missing closing period.

criteria. First, > double space (are in multiple places, so do a CTRL+F).

I had to re-read the sentence “We believe that the ManyLabs 2 failed replication estimates the true effect quite well.” several times – maybe rewrite?

consisted out of 466 participants. > remove out

2) Figures/tables/data availability:

Please comment on the author’s use of tables, charts, figures, if relevant. Please acknowledge that adequate underlying data is available to ensure reproducibility (see open data policies per discipline of Collabra here):

Excellent.

3) Ethical approval:

If humans or animals have been used as research subjects, and/or tissue or field sampling, are the necessary statements of ethical approval by a relevant authority

present? Where humans have participated in research, informed consent should also be declared.

If not, please detail where you think a further ethics approval/statement/follow-up is required.:

OK

4) Language:

Is the text well written and jargon free? Please comment on the quality of English and any need for improvement beyond the scope of this process.:

Excellent, I provide minor spelling corrections

Editor Decision for Version 1

Editor: Simone Moran

Affiliation: Ben-Gurion University of the Negev

Editor decision: Revisions required

Decision date: 17 March 2019

Dear Prof Steffen Robert Giessner,

After review, we have reached a decision regarding your submission to Collabra: Psychology, "Power and vertical positions in an organization chart: A pre-registered replication report of Study 3a and a modification of Study 1a, Giessner & Schubert (2007)". Our decision is to request revisions of the manuscript prior to acceptance for publication.

The full review information should be included at the bottom of this email. There may also be a copy of the manuscript file with reviewer comments available once you have accessed the submission account. A summary of the requested edits from the editorial team can be found below. Please consider these points and revise the file accordingly:

Editorial Revision Requests:

Major revisions: None

Minor revisions:

- Add and report effect sizes and their CI (see R2, first minor comment)
- Report Ns per condition (R2; 4th minor comment)
- Fix all typos (R2; "spelling" comments).
- See below, in the detailed comments, a few additional suggested edits you may want to consider.

To access your submission account, follow the below instructions:

- 1) login to the journal webpage with username and password
- 2) click on the submission title
- 3) click 'Review' menu option
- 4) download Reviewed file and make revisions based on review feedback
- 5) upload the edited file

6) Click the 'notify editor' icon and email the confirmation of re-submission and any relevant comments to the journal.

Please ensure that your revised files adhere to our author guidelines, and that the files are fully copyedited/proofed prior to upload. Please also ensure that all copyright permissions have been obtained. This is the last opportunity for major editing; therefore please fully check your file prior to re-submission.

If you have any questions or difficulties during this process, please do contact us.

Please could you have the revisions submitted by April 5th. If you cannot make this deadline, please let us know as early as possible.

Kind regards,

Dr Simone Moran
Ben-Gurion University of the Negev
simone@bgu.ac.il

Editor Comments:

Thank you for submitting your paper to Collabra: Psychology. I have received two out of three requested reviews. I am sorry for delaying my response; I wanted to give the third reviewer a chance to come back with a review as well. This has not happened, but given the consistency between the two current reviews and my own reading of the paper, I am comfortable with making the decision without further delay and without a third opinion. The two reviewers reacted favorably to your work. R1 states: "A major strength of this article is the methodological rigor, especially as it relates to open science standards." R1 goes on to say that this work is "a strong demonstration of science operating correctly, and ultimately results in a better understanding of this relationship and allows future researchers to investigate it more meaningfully." Similarly, R2 is "enthusiastic about authors who examine a failure to replicate their previous work, and do so in a theoretically driven and constructive manner. I think this paper is really exemplary on how authors can use a failed replication study as a starting point to examine possible reasons."

I share the reviewers' positive views. To me this is indeed an example of good science and a fit to the mission of Collabra. Thus, I am happy to accept this paper conditionally upon you making a few minor editions.

R1 comments on the last sentence in the paper ("In hindsight...."). I leave it to you to decide whether or not to address this issue.

R2 has some comments and helpful recommendations you might want to consider about how to improve your discussion of empirical evidence that supports your theoretical arguments, about H1, and about your conclusion regarding the absence of a magnitude based mechanism. As for the latter, I agree that concluding no effect should be based on more than just $p > .05$.

In the final version of the paper, please add and report effect sizes and their CI (see R2, first minor comment), report Ns per condition (R2; 4th minor comment), and fix the typos (R2; "spelling" comments).

I am looking forward to your revised paper. Please submit it along with a letter specifying the changes that you have implemented by April 5th.

Author's Response to Review Comments for Version 1

Author: Steffen Robert Giessner

Affiliation: Rotterdam School of Management

Revision submitted: 19 April 2019

Dear Dr. Simone Moran,

we uploaded our revised manuscript. In this, we followed yours and the reviewers' advices. The response to your and the reviewers' comments is uploaded as supplementary file.

On OSF, we added the additional computation of CIs and also two word documents providing an overview of the files uploaded on OSF.

We hope that our responses address all the points raised. We thank you and the reviewers for their supportive feedback.

best,
Steffen Giessner

Attached document:

<https://s3-eu-west-1.amazonaws.com/ubiquity-partner-network/ucp/journal/collabra/216-3053-1-AT.docx>

Editor Decision for Version 2

Editor: Simone Moran

Affiliation: Ben-Gurion University of the Negev

Editor decision: Revisions Required

Decision date: 23 April 2019

Dear Prof Steffen Robert Giessner,

After reviewing your revised paper, we have reached a decision regarding your submission to Collabra: Psychology, "Power and vertical positions in an organization chart: A pre-registered replication report of Study 3a and a modification of Study 1a, Giessner & Schubert (2007)". Our decision is to accept the manuscript for publication, pending the last few minor changes depicted below. Please revise the file accordingly:

Minor revisions:

1) N's per condition have been added. However, in Study 1 they appear in the Results section only. Please report Ns per condition in the Methods section (as is done for study 2).

2) The following revised sentence (in response to R2's comment about the null effect conclusion) seems to now be rather fuzzy and unclear. I think it needs to be reworded and made more clear and simple (End of page 17):

Magnitude of that elevation did not matter – at least in this paradigm, and in the absence of direct comparison (i.e., in a between-subjects design), we found no evidence that magnitude differences beyond rank had much impact on power evaluations.

3) A few additional wording issues I detected:

o Page 4, line 10: I suggest to edit as follows:

Preverbal infants already pay more attention to scenes in which large actors defer to small actors, apparently inferring power from body size (Thomsen, Frankenhuus, Ingold-Smith, & Carey, 2011)

o Page 4, line 14: Judgments of power are slowed down and more error-prone when the judged agents' vertical positions do not fit the judgments.

This is unclear. Perhaps change to "...when the agents' vertical positions do not fit the power judgements"

o Page 4, Line 17-18: Note, however, that our overview over the evidence here is selective; we must assume that this field is subject to publication bias and that true effect sizes are likely smaller than reported (Simmons & Simonsohn, 2017).

o Page 4, Line 17-18: Note, however, that our overview over the evidence here is selective; we must assume that this field is subject to publication bias and that true effect sizes are likely smaller than reported (Simmons & Simonsohn, 2017).

Replace "over the evidence" with "of the evidence"

To access your submission account, follow the below instructions:

- 1) login to the journal webpage with username and password
- 2) click on the submission title
- 3) click 'Review' menu option
- 4) download Reviewed file and make revisions based on review feedback
- 5) upload the edited file
- 6) Click the 'notify editor' icon and email the confirmation of re-submission and any relevant comments to the journal.

Please ensure that your revised files adhere to our author guidelines, and that the files are fully copyedited/proofed prior to upload. Please also ensure that all copyright

permissions have been obtained. This is the last opportunity for major editing;, therefore please fully check your file prior to re-submission.

If you have any questions or difficulties during this process, please do contact us.

Please could you have the revisions submitted by May 6th 2019. If you cannot make this deadline, please let us know as early as possible.

Kind regards,

Dr Simone Moran
Ben-Gurion University of the Negev
simone@bgu.ac.il

Author's Response to Review Comments for Version 2

Author: Steffen Robert Giessner
Affiliation: Rotterdam School of Management
Revision submitted: 24 April 2019

Dear Dr. Moran,

thanks for the positive news. We made all the changes requested. We listed these as attachment to this submission and upload our responses as well in the supplement section.

best wishes,
Steffen Giessner

Editor Decision for Version 3

Editor: Simone Moran
Affiliation: Ben-Gurion University of the Negev
Editor decision: Accept submission
Decision date: 25 April 2019

Dear Prof Steffen Robert Giessner,

After review, we have reached a decision regarding your submission to Collabra: Psychology, "Power and vertical positions in an organization chart: A pre-registered replication report of Study 3a and a modification of Study 1a, Giessner & Schubert (2007)", and are happy to accept your submission for publication, pending the completion of copyediting and formatting processes.

As there are no further reviewer revisions to make, you do not have to complete any tasks at this point. The accepted submission will now undergo final copyediting. You will

be contacted once this is complete to answer any queries that may have arisen during copyediting and to allow a final chance to edit the files prior to typesetting. If you wish to view your submission during this time, you can log in via the journal website.

The review information should be included in this email.

Kind regards,

Dr Simone Moran
Ben-Gurion University of the Negev
simone@bgu.ac.il