



Grateful or indebted? Revisiting the role of helper intention in gratitude and indebtedness

A recommendation by [Zhang Chen](#) ^{ORCID} based on peer reviews by [Cong Peng](#), [Sarahanne Miranda Field](#) ^{ORCID} and [Jo-Ann Tsang](#) ^{ORCID} of the STAGE 2 REPORT:

Chi Fung Chan, Hiu Ching Lim, Fung Yee Lau, Wing Ip, Chak Fong Shannon Lui, Katy Y. Y. Tam, Gilad Feldman (2025) Revisiting the Effects of Helper Intention on Gratitude and Indebtedness: Replication and extensions Registered Report of Tsang (2006). OSF, ver. 6, peer-reviewed and recommended by Peer Community in Registered Reports.

<https://osf.io/gthma>

Submitted: 17 May 2024, Recommended: 11 March 2025

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When receiving a favor, we may feel grateful and/or indebted to those who have helped us. What factors determine the extent of gratitude and indebtedness people experience? In a seminal paper, Tsang (2006) found that people reported feeling more gratitude when the helper's intention was perceived to be benevolent rather than selfish. In contrast, indebtedness was not influenced by the perceived intention of the helper. In the current study, Chan et al. (2025) revisited the effects of helper intention on gratitude and indebtedness, by replicating and extending the original studies (Study 2 & 3) by Tsang (2006). Participants were asked to either recall (replication of Study 2) or read (replication of Study 3) a scenario in which another person helped them with either benevolent or selfish intentions, and rate how much gratitude and indebtedness they would experience in such situations. Replicating the findings by Tsang (2006), Chan et al. (2025) found that gratitude was more strongly influenced by helper intention than indebtedness. Extending these findings, the authors further discovered that helper intention affected perceived expectations for reciprocity and reciprocity inclination. Moreover, perceived reciprocity expectations showed opposite correlations with gratitude and indebtedness. Overall, this successful replication reinforces the distinction between gratitude and indebtedness, providing a solid foundation for future research on their underlying mechanisms and downstream influences. This Stage 2 manuscript was evaluated over one round of in-depth review by three expert reviewers, and a second round of review by the recommender. After the revisions, the recommender judged that the manuscript met the Stage 2 criteria and therefore awarded a positive recommendation. **URL to the preregistered Stage**

1 protocol: <https://osf.io/uyfvq> **Level of bias control achieved:** Level 6. *No part of the data or evidence that was used to answer the research question was generated until after IPA.* **List of eligible PCI RR-friendly journals:**

- [Collabra: Psychology](#)
- [F1000Research](#)
- [International Review of Social Psychology](#)
- [Meta-Psychology](#)
- [Peer Community Journal](#)
- [PeerJ](#)
- [Royal Society Open Science](#)
- [Social Psychological Bulletin](#)
- [Studia Psychologica](#)
- [Swiss Psychology Open](#)

References:

1. Tsang, J.-A. (2006). The effects of helper intention on gratitude and indebtedness. *Motivation and Emotion*, 30, 199–205. <https://doi.org/10.1007/s11031-006-9031-z>

2. Chan, C. F., Lim, H. C., Lau, F. Y., Ip, W., Lui, C. F. S., Tam, K. Y. Y., & Feldman, G. (2025). Revisiting the Effects of Helper Intention on Gratitude and Indebtedness: Replication and extensions Registered Report of Tsang (2006)[Stage 2]. Acceptance of Version 6 by Peer Community in Registered Reports. <https://osf.io/gthma>

Reviews

Evaluation round #2

DOI or URL of the preprint: <https://osf.io/3xpb6>

Version of the preprint: 5

Authors' reply, 04 March 2025

Revised manuscript: <https://osf.io/gthma>

All revised materials uploaded to: <https://osf.io/ghfy4/>, updated manuscript under sub-directory "PCIRR Stage 2\PCI-RR submission following RNR 2"

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[Download tracked changes file](#)

Decision by **Zhang Chen** , posted 27 February 2025, validated 27 February 2025

Decision on your revised Stage 2 manuscript - minor revision

Dear Dr. Gilad Feldman,

Thank you for submitting your revised Stage 2 manuscript, titled "Revisiting the Effects of Helper Intention on Gratitude and Indebtedness: Replication and extensions Registered Report of Tsang (2006)", to PCI RR. All previous comments by the reviewers have been addressed very satisfactorily. There are, however, a few very minor textual issues (listed below) that I hope you could address, before I recommend this Registered Report. I read the version with tracked changes, so the page numbers below refer to the word document with tracked changes.

Kind regards,
Zhang Chen

Page 6:

"the helper's motivations". For consistency, should this be "the helper's intentions" instead?

"with weaker to no motivation for feelings of indebtedness": with weaker to no effects of the helpers' intentions on feelings of indebtedness?

Page 15, Table 1:

"4 + 5 (2r+3r) [Regression complementary analysis] Benevolent favors result in more indebtedness than selfish-ulterior favors, even after controlling the magnitude of favor.
[Reframed from the target article's null hypothesis]"

I think Hypothesis 4 + 5 is meant to compare gratitude and indebtedness, so the text above quoted from the table is not correct?

Page 18:

"To the best of our knowledge, there has been no research examining the impact of helper intention on reciprocation magnitude." It is unclear what "reciprocation magnitude" is. Perhaps you mean "inclination" rather than "magnitude"?

Page 24, Table 4:

"Independent variables (IV) Motives of helper in the provided in the paragraph (between-subject)"

Should be "Motives of helper provided in the paragraph"?

Page 25:

"a statement indicating that they understand and agree and terms"

Page 37:

"We concluded support for Hypothesis 4 (2r) that helpers' motives (benevolent vs. selfish-ulterior) and magnitude of favor predict gratitude, but - as expected - not for Hypothesis 5 (3r null hypothesis) that helpers' motives and magnitude of favor predict indebtedness."

I think it's more accurate to not have "magnitude of favor" in there. After all, the predictions were about helpers' motives only, and at the moment it sounds like the magnitude of favor does not predict indebtedness, which is not true.

Page 40:

"We conducted independent samples t-tests (Welch's; two-tailed) and found that the rated in the selfish-ulterior condition" Some words are missing after "rated".

Page 49, Figure 9

"Note. Scale: 1 to 7; Higher values indicate higher expectations for reciprocity". The y axis is reciprocity inclination, not expectations.

Evaluation round #1

DOI or URL of the preprint: <https://osf.io/qgphj>

Version of the preprint: 4

Authors' reply, 09 February 2025

Revised manuscript: <https://osf.io/3xpb6>

All revised materials uploaded to: <https://osf.io/ghfy4/>, updated manuscript under sub-directory "PCIRR Stage 2\PCI-RR submission following R&R"

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Decision by [Zhang Chen](#) , posted 29 July 2024, validated 29 July 2024

Decision on your Stage 2 Registered Report: Revisions Required

Dear Gilad Feldman,

Thank you for submitting your Stage 2 Registered Report "Revisiting the Effects of Helper Intention on Gratitude and Indebtedness: Replication and extensions Registered Report of Tsang (2006)" for consideration by PCI Registered Reports.

Three reviewers who have reviewed the Stage 1 protocol previously have now read your Stage 2 Registered Report. As you will see, all three reviewers are in general positive, and have provided valuable feedback to further improve the manuscript. Based on their comments and my own reading, I would therefore like to invite you to submit a revised version.

Kind regards,

Zhang Chen

Reviewed by Jo-Ann Tsang , 07 July 2024

I appreciate the opportunity to be a part of the review process for this replication. Below are some small suggestions for improvement:

- on p. 19, when listing total participants, was this after exclusions? Please list the number of exclusions, and the reasons for excluding.

- I noticed in the Methods and Results the authors refer to Studies 2 and 3. This can be a bit confusing, as it is easy to interpret this as the authors running 3 studies. It would be clearer (albeit take more space) to write "replication of Study 2" and "replication of Study 3".

- On p. 31, under the heading "Replication: Extension Analysis", second line from the heading, I believe the authors meant to write "gratitude but not indebtedness" rather than "gratitude but no indebtedness".

- I noticed in the Methods in p. 32 (under the "Order Effects" heading), the authors used a mix of past, present, and future tense verbs. It would be clearer if the verb tenses are consistent, such as all past tense. Do check before p. 32, as it may have also occurred before then, but it stood out the most to me on this page.

- On p. 52, the authors suggest that their results are counter to previous research linking gratitude to prosociality. I think this is too big of a jump. The authors do not measure prosocial behaviors, or even prosocial behavioral intentions. Additionally, Ma et al.'s 2017 meta-analysis linking gratitude to prosociality suggests there generally is a relationship, and the relationship is not necessarily countered by only one study. If the authors feel strongly about leaving this point in, I suggest making the point more tentatively. This same issue appears again on p. 54 where the authors suggest that De Steno's work was not replicated. Again, the authors did not measure dependent measures that De Steno did, and there is a large literature supporting the relationship between gratitude and prosociality.

Signed,

Jo-Ann Tsang

Reviewed by Cong Peng, 20 June 2024

Overall, I believe the authors did an excellent job in implementing the study. They adhered closely to the stage 1 registration to conduct the study, test the hypotheses, and report the results. Very glad to see that this important pioneering work by Tsang (2006), which I cited a lot in my own manuscripts, has been successfully replicated. Congratulations to the authors, and thank you for all the efforts in working this out.

Here are some of my concerns and suggestions to improve the manuscript.

For Study 3, H7, the authors proposed a different hypothesis on gratitude regarding the ambiguous condition (benevolent>ambiguous>selfish) compared to Tsang (benevolent>selfish>ambiguous). This hypothesis is not well justified, nor are the results (and its comparison with Tsang) adequately discussed. Additionally, I would expect the authors to report the t-test comparing the benevolent vs. selfish conditions on gratitude, which is crucial but currently missing. Specifically, the effect size seems much larger in this study (6.59 vs. 5.48) compared to the original one (6.76 vs. 6.49). These findings are important and could be discussed.

The authors did several two-way ANOVAs to examine the interaction effects. What these results mean and its implications are somewhat unclear and unexplained.

On page 40 par.2, under manipulation check, it states, "However, we found no support for rated helper intention in the benevolent condition as different from that in the ambiguous condition". This reporting appears incorrect, as this paragraph is about the rated magnitude of favor.

I did not see the report related to the order effect. I understand that the authors registered to do this only if the data failed to support the hypothesis. But as the authors indicated, "one disadvantage is that answers to one scenario may bias participants". Therefore, I believe it's still important for the readers to understand whether, or to what extent, combining two studies into one may have generated bias.

The results for the extension part are a bit confusing to me. The authors concluded that gratitude and indebtedness are both not associated with reciprocity tendency, but no statistical analysis was presented

to directly support this statement. Moreover, based on this conclusion, the authors discussed that this is a conceptual replication of Bartlett & DeSteno (2006) and Peng et al., (2020), which I disagree with. In these two articles, the IV is Help vs. No Help, and the DV is actual helping behavior rather than reciprocity tendency, which are quite different from the current experiment setting.

Best of luck with your future research!

Cong Peng

Reviewed by Sarahanne Miranda Field , 28 June 2024

Dear authors/recommender,

It was a pleasure to see this article in its final form, after having reviewed this as a stage 1 protocol. I thought the protocol was solid, and the completed study reinforces that. It has been carefully and thoroughly conducted (which of course is partly due to the cooperation of the original authors), and written up with plenty of detail which allow the reader to evaluate its quality. As I believe I mentioned in my original review, I think it could be enhanced by the addition of Bayesian statistics, but that isn't a deal-breaker, especially as the p-values do not really come into the ambiguous territory (i.e., most of them are quite small and would be likely to easily recalculate to pro-alternative BFs).

All-in-all, congratulations to the authors on a very well-done study! I have no qualms in seeing this article in print!

Sarahanne M. Field