

Low Replicability and Trust in Psychology - Study 4 (#12174)

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1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?

We investigate whether different explanations for a low replication rate influence the trust in the psychological science community.

To investigate this, we will employ three conditions. In all conditions, we describe the replication rate of psychological science as low (39%). Depending on condition, we will explain the replication rate as the result of questionable research practices (QRP-condition) or as a result of hidden moderators (hidden moderator-condition). In a final condition, we will provide no explanation for the low replication rate (control condition).

We expect a lower trust in the psychological science in the QRP-condition than in the hidden moderator-condition. We will also exploratorily compare the control condition to both other conditions.

We administer two manipulation checks by asking people to indicate their agreement with the items: 1. "Unknown or hidden factors explain the low replication rate" and 2. "Questionable research practices explain the low replication rate". Our manipulation will be deemed successful if participants in the QRP-condition conditions show a lower agreement with the first item than participants in the hidden moderator-condition but a higher agreement with the second item than participants in the hidden moderator-condition. We do not administer the manipulation check items in the control condition.

3) Describe the key dependent variable(s) specifying how they will be measured.

Institutional trust in the scientific community will be measured by averaging five items adapted from Nisbet, Cooper, & Garrett (2015). The items are:

1. I have very little confidence in the psychological science community.*

2. Items 2 - 5 have been removed to avoid potential copyright infringement.

3.

4.

5.

* Item is reverse coded.

4) How many and which conditions will participants be assigned to?

Participants will be randomly assigned to one of three conditions. Participants will receive a description of the Open Science Collaboration (2015) study, indicating that the replication rate found in the study was low (39%). Depending on condition, we will explain the replication rate as the result of questionable research practices (QRP-condition) or as a result of hidden moderators (hidden moderator-condition). In a final condition, we will provide no explanation for the low replication rate (control condition).

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

Our main analysis will be a t-test for independent samples to compare the QRP-condition with the hidden moderator-condition. We will use a significance level of .05. We will calculate one-tailed p-values for all preregistered hypotheses and two-tailed p-values for all exploratory tests.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

We will administer three questions to control for the text understanding, namely: 1. "Experiments are used in psychological research.", 2. "Psychologists never use statistical analyses", 3. "A research team replicated 100 different psychological studies trying to verify their results.". If participants respond incorrectly to more than one item, they will be excluded. Incorrect responses will be defined as not disagreeing (values larger than 3 on the 1 – 7 scale) with the second item or not agreeing (values smaller than 5 on the 1 – 7 scale) with the first and third item.

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

300 MTurkers will be paid to participate in the study. If by chance we collect more (as can happen in online studies), we will analyze data from all participants.

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

I collaborate on this project with names removed to ensure blind peer review