Low Replicability and Trust in Psychology - Study 5 (#12902)

Author(s)
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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 an improved replicability will repair 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 in 2015 as low (39%). Depending on the condition, we will provide no further information (control condition) or we will provide additional information about a fictional new replication project in 2018. Some participants will learn that the results still indicate a low replicability (41%; still low-condition) or that the results now indicate a high replicability (83%; now high-condition).
We expect a higher trust in the psychological science in the “now high”-condition than in the two other conditions. We will exploratorily compare the “still low”-condition and the “control condition”.
We administer a manipulation check by asking people to indicate their agreement with the items: “Psychological research is now more replicable”. Our manipulation will be deemed successful if participants in the now high-condition show a higher agreement with this item than participants in the still low-condition. We do not administer the manipulation check item 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. In all conditions, we describe the replication rate of psychological science in 2015 as low (39%). Depending on condition, we will provide no further information (control condition), or we will provide additional information about a fictional new replication project in 2018. Some participants will learn that the results still indicate a low replicability (41%; still low-condition) or that the results now indicate a high replicability (83%; now high-condition).

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.
Our main analysis will be two t-tests for independent samples to compare the “now high-condition” with the “still low”-condition and the control 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 check for 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.” (in the control-condition) / “Two different research teams each repeated 100 different psychological studies trying to verify and thereby replicate their results.” (in the experimental conditions). 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