# Low Replicability and Trust in Psychology - Study 3 (#11229)

**Author(s)**
removed to ensure blind peer review

**Created:** 05/25/2018 08:59 AM (PT)
**Public:** 02/28/2019 07:39 AM (PT)

**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 transparency can help to repair trust that has been reduced by a low replication rate.
To investigate this, we will employ three conditions. We will describe the replication rate of psychological science as low (39%) or high (83%). Moreover, we will have an additional condition in which we describe the replication rate of psychological science as low (39%) but provide information that psychological research has become much more open and transparent (low replication rate + transparency condition).
Replicating prior findings, we expect higher trust in the psychological science community when participants are told that the replication rate is high (83%), than when they are told that it is low (39%).
We also expect higher trust in the psychological science community when participants are told that the replication rate is low, but that psychology became more transparent than when they are merely told that the replication rate it is low (39%).
We will test exploratively if there is a significant difference between the “high replication rate” condition and the “low replication rate + transparency” condition
We administer two manipulation checks by asking people to indicate their agreement with the item: 1. “Psychological research is replicable.” and 2. “Psychological research is transparent.”.
Our replication rate manipulation will be deemed successful if participants in both low replicability conditions show a lower agreement with the first item than participants in the “high replicability” condition. Our transparency manipulation will be deemed successful if participants in the “low replicability condition” show a lower agreement with the second item than participants in the “low replicability + transparency” 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
3 potential copyright infringement.
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%) in one condition, while the description in the second condition will indicate that the replication rate was high (83%). In the third condition, the description will again indicate that the replication rate was low (39%), but participants will also be informed that psychological research has become much more open and transparent (low replication rate + transparency condition).

**5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.**
Our main analysis will be three t-tests for independent samples to compare each of the three groups (low replication rate, high replication rate, low replication rate + transparency) with the two other groups. We will use a significance level of .05. We will calculate two-tailed p-values for comparing the high replication rate condition with the low replication rate + transparency condition. For the other two tests, we will calculate one-tailed p-values.

**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 agreeing (values larger than 4 on the 1 – 7 scale) with the second item or disagreeing (values smaller than 4 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?)**
We collect additional demographic data (race, gender, age, native speaker).

ASPREDICTED

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