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Caution Preprint Study 2 (#44089)

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This pre-registration is not yet public. This anonymized copy (without author names) was created by the author(s) to use during peer-review.

A non-anonymized version (containing author names) will become publicly available only if an author makes it public. Until that happens the contents of this pre-registration are confidential.

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 are interested in participants' credibility evaluation of preprints and peer-reviewed articles. Participants read short descriptions of five different research findings. Depending on the condition, participants are told that these findings were either originally published as peer-reviewed articles (peer-review-condition) or as preprints (preprint-condition).

We predict that participants' credibility ratings in the "peer-review-condition" and in the "preprint-condition" will not differ significantly.

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

We will measure the perceived credibility of research findings with one item for each description.

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

Participants will be assigned to one of two conditions, as described in point 2). We employ a between-subjects design.

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

Following our prior studies, we will calculate a mean credibility rating of all five credibility ratings. We will then compute a t-test for independent samples comparing the perceived mean credibility of research findings in the "preprint-condition" and the perceived mean credibility of research findings in the "peer-review-condition", to test whether there is a significant difference. We expect no significant difference. We will then conduct equivalence tests (Lakens, 2017; Lakens, Scheel, & Isager, 2018) to test whether the observed credibility difference is statistically equivalent to an interval only containing small effects ($|d| < .3$). We expect this to be the case.

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

Participants will receive a text understanding question. If participants answer the text understanding question incorrectly, they will be asked to carefully read the text again. If they fail the text understanding questions again, they will be excluded from our analyses.

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.

We will pay 700 MTurk users to take part in our study. If by chance, we collect more (as it 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 age, gender, and prior knowledge of preprints and peer-review to describe our sample. We further collect familiarity with the publication system and education as potential moderators.

Participants will also be asked to consider all five research findings jointly and to indicate whether these findings have been quality-controlled and whether these findings were published following the standard academic procedure (one item each). We predict that participants' responses on these items in the "peer-review-condition" and in the "preprint-condition" will not differ significantly.