Supplementary Material

**Experimental Research**

Due to low number of studies with reported Cohen's d effect sizes ($k = 4$), the meta-analysis of the experimental research on the effect of analytical thinking on conspiracy beliefs is not informative. Future studies should re-assess this area of research once the number of experimental studies increase. However, to provide a more complete picture of the state of the art, we also report the analysis of the experimental studies. As there were only 2 studies on the effect on generic conspiracy beliefs, we do not further divide the studies in terms of the type of conspiracy beliefs (i.e., generic vs. specific).

The meta-analytic effect size (with smaller estimates) was $d = -.359$, $SE = .080$, $z = -4.491$, $p < .001$, 95% CI [-.516, -.202] (see Figure 1).[1] However, the funnel plot showed that the studies tended to have estimates with high standard errors (see Figure 2) and a p-curve analysis suggested a publication bias, as the distribution of p values was not right-skewed (see Figure 3).

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[1] The meta-analysis of the stronger estimates yielded a similar result, $d = -.422$, $SE = .080$, $z = -5.262$, $p < .001$, 95% CI [-.579, -.265].
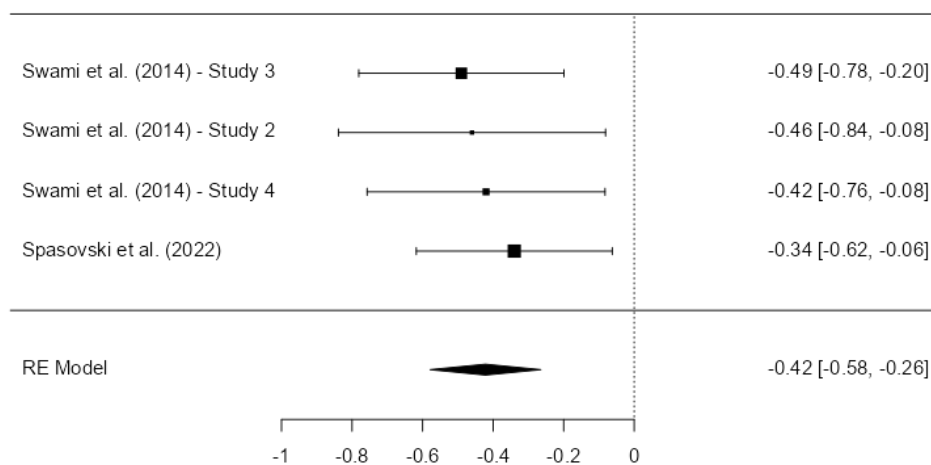
Figure 1. Forrest plot showing the observed associations between reflective thinking manipulations and generic conspiracy beliefs. Bars represent 95% confidence intervals. Studies are ranked from the strongest negative to strongest positive effect size.
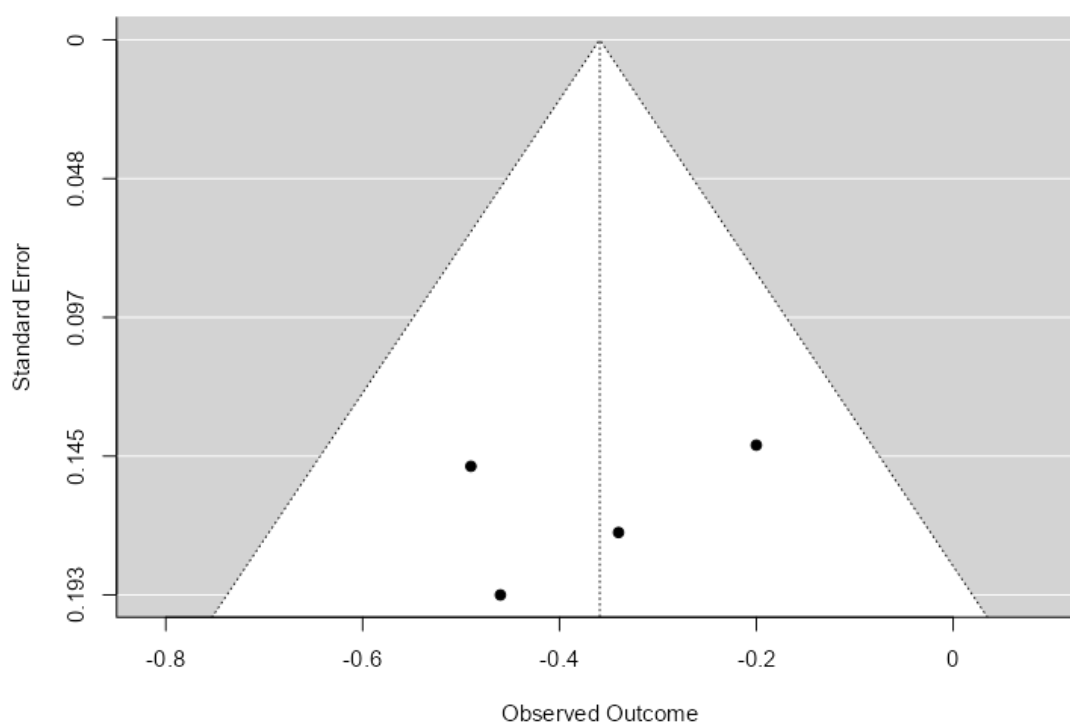
Figure 2. Funnel plot showing the distribution of associations between reflective thinking and conspiracy beliefs in experimental studies that were published.
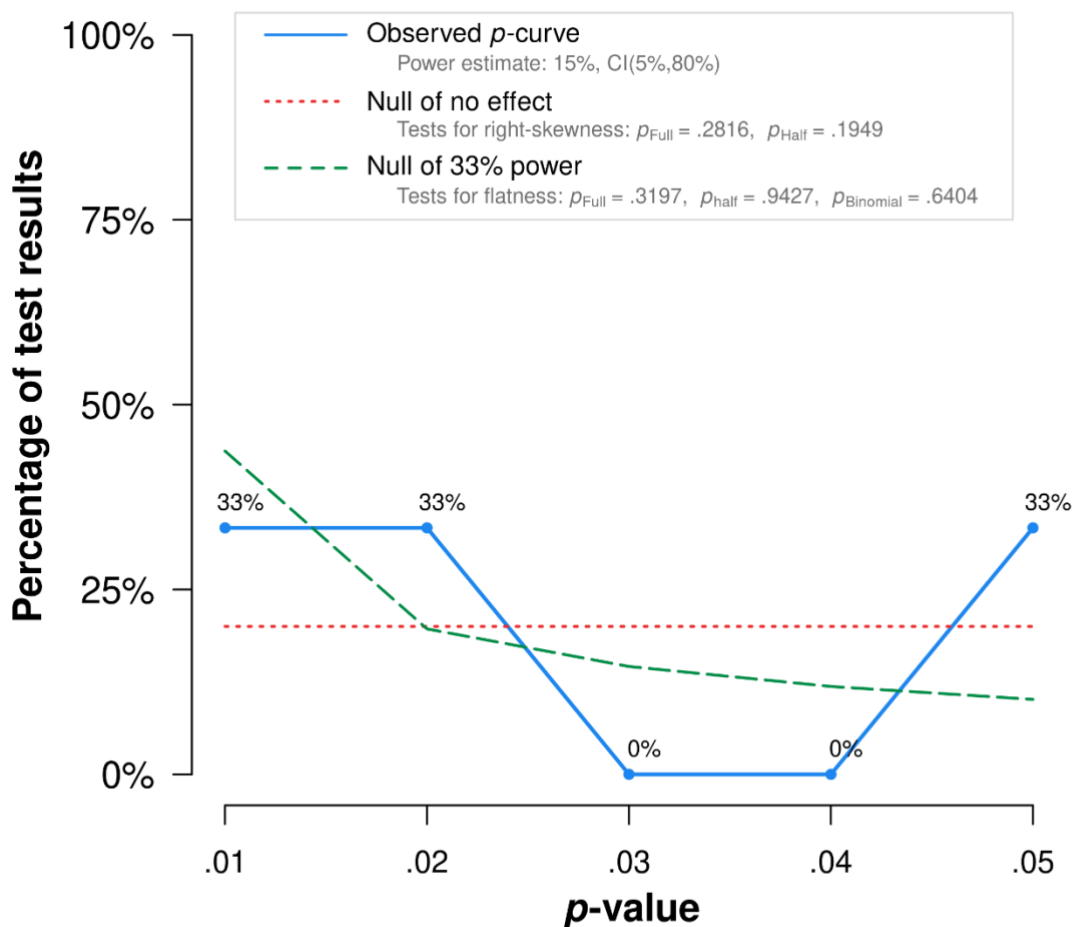
Figure 3. *p*-curve plot showing the distribution of *p*-values in the published experimental research on the relationship between reflective thinking and conspiracy beliefs. The distribution is not right-skewed, suggesting that there might be publication bias.

The meta-analysis of experimental research yielded an aggregate *d* = -.359, but there was evidence to suspect publication bias. To detect this effect size with 90% power and a two-tailed alpha of .05, one would need a minimum of 330 participants (Faul et al., 2009), which is well above than all four published studies reporting an experimental manipulation of reflective thinking. Thus, we would advise more precaution in terms of experimental studies, and there is a clear need for a high-powered experimental study testing the effect of reflective thinking on conspiracy beliefs.

The Potential Role of Corruption

If reflective thinking is negatively related to conspiracy beliefs, one potential explanation is that this is because conspiracy beliefs are irrational. In order to test this potential explanation, in our exploratory analyses, we included the country-level corruption, which is a proxy for plausibility of conspiracy allegations (Alper, 2021), as a moderator. Alper (2021) previously found that the negative association between education level and conspiracy beliefs is weaker in countries with high corruption, presumably because conspiracy theories are plausible and justifiable in these contexts. However, the same finding was not replicated when cognitive reflection, rather than education status, was considered as a predictor (Alper, 2021; Study 4). However, this was only one study and we opted to entertain the possibility of country-level corruption being a moderator explaining potential cross-country variation.

Results showed that, for correlational research, there was significant heterogeneity among effect sizes, $I^2 = 79.87\%$, $Q(143) = 616.573$, $p < .001$. When corruption was added to the meta-regression model as a covariate to predict effect sizes, contrary to the expectation, it did not have a significant association with the observed effect sizes, $b < -.000$, $SE < .000$, $p = .418$, 95% CI [-.001, .001]. For experimental research, there was no heterogeneity among effect sizes, $I^2 = 0\%$, $Q(3) = 2.335$, $p = .506$, and corruption could not be evaluated as a moderator since three out of four studies were conducted in the same country.

Despite our preregistered expectations were all supported, our exploratory analyses regarding the prediction that country-level corruption could be a moderator was not supported. This is in line with a previous finding (Alper, 2021; Study 4), however it requires further research, since it suggests that the relationship between rational thinking and conspiracy beliefs is not dependent on the contextual factors signaling actual conspiracies. Future research should investigate different types of conspiracy beliefs (e.g., relatively more

reasonable vs. more outlandish) to investigate whether more reasonable conspiracy beliefs would be more influenced by contextual signals.