Preregistration in practice: Comparing published papers with their preregistrations

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1. Idea

Preregistration = The process of defining your research questions, research design, data collection plan, and analysis plan before collecting and analyzing the data

Research questions:
1) To what extent do published studies match their preregistrations?
2) What are the most common deviations from preregistrations and how are they explained by the authors?
3) How is the strictness of preregistrations related to the reproducibility of published studies?

Research goals:
1) Gain information to improve the quality of preregistration templates
2) Gain information to improve researchers’ preregistration skills

2. Sample

Registered Reports - CHALLENGE

PREREGRISTRATION = N = 179

Published paper = N = 158

Control: [In prep.] N = 150

Estimated coding time per preregistration - published paper combination:
3*10 minutes (A+B+C) + 4*45 minutes (D+E+F+G) + 2*30 minutes (H + I)
= 360 minutes per combination

Estimated coding time per control group paper:
1*10 minutes (B) + 2*45 minutes (F+G)
= 130 minutes per control group paper

Total estimated coding time:
270*400 combinations + 100*150 controls
= 2.050 HOURS

3. Materials

1) Preregistrations protocol:
A protocol to check the strictness of preregistrations (adapted from Veldkamp et al., 2018)

2) Published papers protocol:
A protocol to check the reproducibility of published papers

3) Matching protocol:
A protocol to check the deviations of published papers from their preregistrations

4. Coding

5. Data collection

WE NEED
1) Researchers with a master degree (or equivalent) in a relevant discipline who can help code for 40 hours

WE OFFER
1) Co-authorship on the papers resulting from this project that can change the way we do science
2) Experience with preregistration that can help to improve your own preregistration skills

Our own preregistration:
[In preparation]