

## Day 06: Pre-registration

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# Announcements

- This week:
  - » HW5 questions
  - » Office hours tonight and Friday
- Next week:
  - » I'll send an email indicating what to skim
  - » Do make sure to complete CITI training
- Rest of the semester:
  - » First draft of final paper due March 22
  - » Can I make v3 of syllabus and change some dates?
    - Send me suggestions by Spring break

# Today's plan

- Quick replication crisis overview
- Why PAPs?
  - » How PAPs are envisioned to help transparency and replicability
  - » EGAP 10 things
  - » Lakens, Ryan, and Wuttke blogs
- What it looks like in practice
  - » AsPredicted form
  - » EGAP form
  - » Your examples
  - » Ofosu and Posner stocktaking
- Where the field stands
  - » JOP requirement
  - » navigating peer review
  - » how to be a consumer of PAPs yourself
- Arguments *against* PAPs
  - » Keep an eye out for peer reviewed registered reports
  - » Wuttke blog

# Defining replication

## Vox 2020 Write up

“When research papers are published, they describe their methodology, so other researchers can copy it (or vary it) and build on the original research. When another research team tries to conduct a study based on the original to see if they find the same result, that’s an attempted replication. (Often the focus is not just on doing the exact same thing, but approaching the same question with a larger sample and preregistered design.) If they find the same result, that’s a successful replication, and evidence that the original researchers were on to something. But when the attempted replication finds different or no results, that often suggests that the original research finding was spurious.”

*Why do we care about replication?*

# Replication crisis

## Vox 2020 Write up

**One 2015 attempt** to reproduce 100 psychology studies was able to replicate only 39 of them. A **big international effort** in 2018 to reproduce prominent studies found that 14 of the 28 replicated, and an **attempt to replicate studies from top journals *Nature* and *Science*** found that 13 of the 21 results looked at could be reproduced.

*Why do you think this is happening?*

# Why?

Problematic practices:

- p-hacking
- HARKing
- underpowered studies
- researcher confirmation bias

Problematic institutions:

- insufficient specification of study conditions in articles
- publication bias

How do we address it?

- Open-science practices in general
- **Today's discussion: pre-registration**

# JOP Guidelines

## Pre-registration guidelines from JOP

### PRE-REGISTRATION GUIDELINES

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Pre-registration of an analysis plan is committing to analytic steps without advance knowledge of the research outcomes (Nosek et al. 2018). Pre-registration is neither necessary nor sufficient for good research. But pre-analysis plans (PAPs) help conducting well-considered research in a transparent way. Pre-registration reminds us to carefully think through the research question, our expectations and all the minor and major decisions that may influence the research outcomes. And PAPs disclose which of these considerations were specified before or after data was collected. Hence, among many others, pre-registration is a useful tool to make political science research more coherent, thoughtful, and credible. Despite the increased popularity of PAPs, their effectiveness depends not only on quality and rigor supplied by their authors but also on adherence to a common set of principles and guidelines known to readers and referees, which is the purpose of this document.

The *JOP* requires the submission of a PAP for all experimental studies, including laboratory, survey and field experiments, from 1 January 2021.

Pre-registration of other types of research design is very much encouraged. The submission of unregistered laboratory, field, and survey experiments will not be accepted. If in doubt whether a PAP is required for a specific piece of research, please do not hesitate to [contact the JOP editorial team](#).

# Registration cites

## AsPredicted.org

- encourages succinct registrations
- *not* everything needed to replicate
- possibly good for very exploratory work
- possible *not* good for JOP?

## EGAP and OSF

- See page 11 of instructions where you upload PAP
- walk through draft together



# Types of registration

## 1. Pre-registration

- » our discussion today
- » not peer reviewed

## 2. Registered Reports

- » peer reviewed
- » submit registration to a journal *before* conducting the experiment
- » if accepted, paper is published **regardless of study's outcomes**

# Registered reports with JEPS

Registered reports, according to [this source](#), but double check

- [Journal of Experimental Political Science](#)