

# Good and Bad Replications in Political Science: How Replicators and Original Authors (Should) Talk to Each Other



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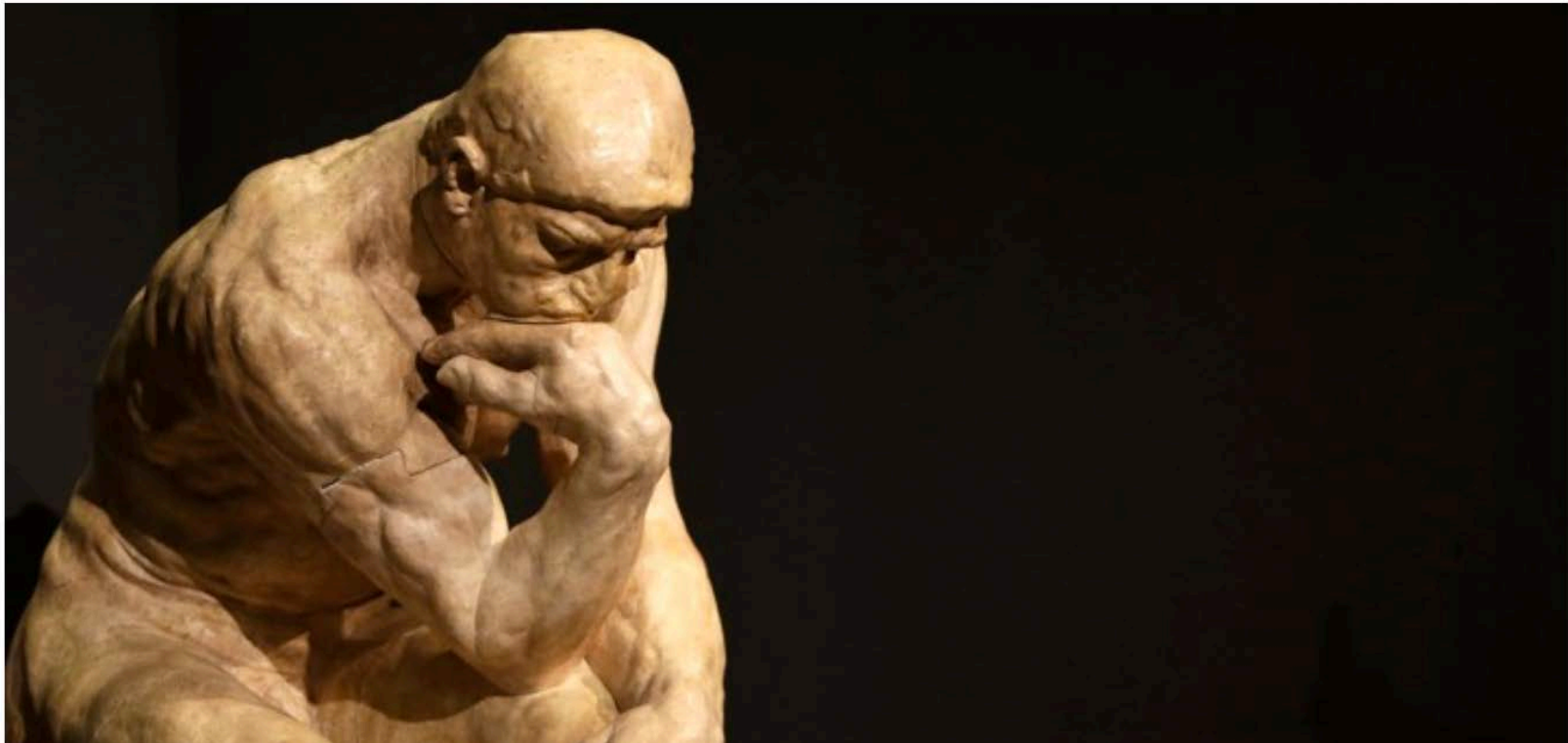
# Psychology's Replication Crisis Is Running Out of Excuses

Another big project has found that only half of studies can be repeated. And this time, the usual explanations fall flat.

- 200 Psychologists
- 28 studies

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# The Case of the Amazing Gay-Marriage Data: How a Graduate Student Reluctantly Uncovered a Huge Scientific Fraud



NEW YORK

# Replication vs. Duplication

Duplication	Replication
<p data-bbox="144 421 656 578">Verification of research results</p> <ul data-bbox="144 706 898 892" style="list-style-type: none"><li>• did errors occur that would reverse findings?</li><li>• student learning context</li></ul> <p data-bbox="144 1021 627 1178"><b><i>same data</i></b> <b><i>same methods</i></b></p>	<p data-bbox="937 421 1535 578">Test robustness of research results</p> <ul data-bbox="937 706 1767 892" style="list-style-type: none"><li>• due to chance?</li><li>• suboptimal methods or data?</li><li>• narrow contexts?</li></ul> <p data-bbox="937 1021 1391 1178"><b><i>new data</i></b> <b><i>new methods</i></b></p>

# Handling different results

Duplication	Replication
<p>Reasons are <b>knowable</b></p> <ul style="list-style-type: none"><li>• honest mistake by author or duplicator</li><li>• original study opaque</li><li>• by chance</li></ul> <p><b><i>Duplicate your study before journal submission!</i></b></p>	<p>Reasons are <b>mysterious</b></p> <ul style="list-style-type: none"><li>• different or suboptimal methods or data</li><li>• narrow context</li><li>• by chance</li></ul> <p><b><i>Describe changes exactly &amp; avoid “failed” label for diverging results</i></b></p>

# “Replication Chains”



# What **replicators** write



“We ... find that coding **errors**, selective exclusion of available data, and unconventional weighting of summary statistics lead to **serious errors**” (Herndon et al. 2013)

“If we cannot even reproduce the original results using the same publicly available data, there is **no need for further commentary.**” (Miller et al, 2001)

# How original authors **respond**

“less realistic”, “inconsistent with the substantive literature,” and “**of limited utility**” (Mansfield, Milner, and Rosendorff 2002)



“**fundamentally flawed**”  
(Peffley, Knigge, and Hurwitz 2001)

“statistical, computational, and reporting errors that **invalidate its conclusions**” (Gerber and Green 2005:301).





# Transparent planning

## **Clear aim:**

Are you conducting a replication or duplication?

## **Be transparent & reproducible:**

- Why have you chosen the original study for replication?
- Is your methods and data section clear?
- Pre-register your replication to avoid accusations of p-hacking or deliberate error hunting
- crosscheck your duplication/replication before submission

## **Be an expert:**

- Engage with substantive literature to ensure that interpretation of differences is suitable to the field
- Extension motivated by theory or methods critique, not playing with data



Rhetorical  
**sensitivity**

## **Avoid binary judgments:**

present diverging results step by step and interpret why this might be the case

avoid saying that the du-/replication of a study has “failed”

## **Don't make it personal:**

professional, courteous and collaborative (as opposed to confrontational) language

make clear what the positive contribution of the original article is--after all, you would not have chosen it if it the study to be re-examined was not crucial to the field.

honest mistakes are human

## **Look forward, not backwards:**

your judgment on the original study is not ‘final’  
discuss how the literature can move forward

# What **constructive** replicators write

“this is **not a critique** of existing papers, which **faithfully report careful** studies ... Rather, replication with a different event, sample, and time is a **way to move the literature forward** to assess robustness“

“**not** be taken as definitive evidence that the extant literature over-states the extent of irrelevant events; yet, it serves as a (cautionary) **prompt to the next generation** of work.”

(Busby and Druckman 2018)

Replicate others  
as you would like to  
**be replicated  
yourself!**

# Thank you!



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