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Response to Referee 3 for “A Replication Recipe: List Your Ingredients Before You Start Cooking”

December 4th, 2017

Dear Referee 3,

Thank you for reading my paper, and for carefully considering the thoughts of other referees. I will comment on a few of your points, below in *italics*.

When the different contexts are described I miss an explanation of how “a verification of the original paper for the archival record” is meant. Why should one keep such a record of others’ papers? For the journal editor? Why are online appendices irrelevant?

What I was referring to by the “archival record” was the portion of the document that an institution (e.g., journal) is going to preserve. Often, but not always, the journal will preserve just the main text but not the supplemental appendix. Certainly if the supplemental appendix is also going to be preserved then a replication that wants to verify a paper for the archival record would also verify the appendix.

The problem with pre-analysis plans in empirical economic research when data is available is that there are many fast and easy ways to engage in data mining that would not leave any traces and could easily have been done before the pre-analysis plan was published.

Yes, this point is true. I would hope that researchers would be ethical enough to abstain from data mining prior to writing a preanalysis plan, if the researchers are intent on following such a preanalysis plan.

Let me touch on a related point: I think that exploratory research, i.e., research undertaken without preanalysis plans is valuable. Exploratory research is necessary in certain contexts, particularly when the researcher is so unfamiliar with the data (or is unfamiliar with data generating process) that the researcher is unable to craft a preanalysis plan. I also think that, on net, preanalysis plans are underused.

While it is specifically mentioned that pre-analysis plans should help to ground our estimates in statistical theory I don't see any theoretical reasoning for the replication.

This point is related to the response that I wrote to referee #1, namely that preanalysis plans, which include preanalysis plans applied to replications, can ensure that reported coefficients come from the appropriate theoretical distributions.

Checking the ReplicationWiki is not sufficient to determine whether a study has already been replicated. A literature research is necessary. Here google scholar can be quite helpful as many papers electronically available that cite a study are listed and a replication would most usually cite an original study.

It's difficult (or even impossible) to prove a negative, so a registered replication on the ReplicationWiki seemed like a reasonable check to see whether this paper had been replicated. Looking over the citing articles in Google Scholar (as of today, December 4th, 2017), I did not see any article titles that obviously suggested that a replication had been conducted (and the only paper with "replication" in the title that also cites Haurin and Rosenthal (2007) is this paper).

Is a replication "successful" if the original results can be replicated but an extension shows that these results are of questionable value to answer the research question?

The replication is "successful" if the original results can be replicated, yes. The generic value of the results to the research question is another matter.

Kind Regards,

Andrew C. Chang

Senior Economist, Division of Research and Statistics

Board of Governors of the Federal Reserve System

a.christopher.chang@gmail.com

References

Haurin, Donald R., and Stuart S. Rosenthal. "The Influence of Household Formation on Homeownership Rates Across Time and Race," *Real Estate Economics* 35:4 (2007), 411-450.