Review, Replication, Verification and Teaching
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ABSTRACT

It goes without saying that in an Public Administration class focusing on the bureaucracy would, by necessity, require a review of some of the classic studies completed in that area of study. We could hardly get through the first class without referencing some past study about bureaucracy which made some point(s) we wish to convey to this new class. Much of that research, however, is twenty or thirty years old. This short paper will examine two related questions, first should social science be doing more in the way of verification research? Second, if not strictly replication for the purpose of verification, should social science be duplicating these elderly classic studies, with intent of discovering some longitudinal outcomes?

The paper will examine the “hard” science community’s insistence on replication/verification of experimental results. The disciplines of Physics, chemistry routinely replicate results of experiments. In fact an experiment is not considered valid until another researcher has performed the same experiment, under the same conditions, using the same methodology and obtained the same results. Not similar results but exactly the same results. If Albert Einstein’s theory of relativity is to be disproved, experiments finding something in the universe which moves at faster than the speed of light will need years of experiments, in a multitude of places, by a host of experimenters. The paper will ask: Why are social scientists less rigorous?

The second half of the paper will use some of those classic PA studies, mostly in the area of bureaucratic behavior, to suggest the utility of reproducing or duplicating those studies with samples from modern day.

Scientific Replication

The vast majority of replication and verification exists in the “hard sciences.” Hard exactly for the reason for this piece, the ability to verify results through experimentation, which can be duplicated by another researcher. Stated slightly differently, “the only way to understand and evaluate an empirical analysis fully is to know the exact process by which the data were generated and the analysis produced.” (King 1995, 444) The very idea of verification of experimental results is so well grounded in physics, chemistry, biology, medical research and engineering fields as to need no additional documentation.
From the earliest days experimental scientists needed to verify any and all experimental results. Galileo Galilei is said to have dropped two cannon balls of different sizes from the Leaning Tower of Pisa, to demonstrate that their descending speed was independent of their mass. This, often repeated story, may or may not be true, the truth of the story is immaterial to the results of the experiment. Until others, many others, has achieved the same experimental results there was no validity of the experimental results. The very essence of the scientific method is the notion of reproduction of results. (Mittelstaedt and Zorn 1984)

Social Sciences

Why are social scientists less likely to engage in replication research/publication? A search of the well known JSTOR database reveals 2418 matches on “replication” only in the title, and 560 on “verification” only in the title. Searching on “replication” and ‘verification” together in the title resulted in 22 matches. All but one of the twenty-two came from a single source: PS Political Science and Politics. In this edition there is an extended scholarly discussion on the issue of research replication. One professor from Harvard University, Gary King, argued for replication of empirical political science research. (King, 1995) King is responded to twice by Kenneth Meier, then Editor of the American journal of Political Science, strongly supporting the idea of more replication. Dr. Meier quotes AJPS’s policy with regard to replication. The policy requires manuscripts submitted to AJPS contain a footnote which says the authors will supply their manuscript data to anyone who requests the data. The policy’s concluding sentence says, “AJPS strongly encourages authors to share their data with other authors.” (Meier, 1995a, p. 457) Robert and Nita Lineberry, Editor and Assistant Editor, respectfully, endorse the whole concept of social science replication for purposes of authenticity and accountability. (Lineberry, 1995)

The single article not in the PS discussion was an extensive review of the literature of sociology with regard to replication. This article’s critique of the literature revealed that “limited systematic attention had been given to its various functions in the process of verification.” (La Sorte 1972, p. 218) My quick review of the first 250 entries in JSTOR searching on “replication” only in the title, about ten percent of the total retrieved, showed the vast majority in the “hard sciences” with a smattering in the disciplines of Sociology, Psychology, Education and Business in about that order. I didn’t actually count, but rather quickly scanned titles and journals. I found NONE in the discipline of Public Administration.

Hubbard, Vetter and Little found no evidence of “strict replication” in the 701 empirical articles they reviewed. (1998, p. 247) The authors found 5.3 percent of the published papers were “replications with extensions.” (Ibid) Why is so little social science replication being published? One reason is certainly related to publication in a very competitive environment. Top tier journals have a finite amount of space, which they largely reserve for original work. Not being original consigns any top-tier submission to rejection, with future submissions to lower-tiered journals, with a good chance of rejection also. Graduate students are not encouraged to engage in replication studies, and tenure-track candidates most likely will receive little credit in their tenure portfolios for replication research. Courses in methodology either do not discuss replication at all or trivialize the very thought. My personal academic experience has been that replication is the lowest form of research, only slightly above no research at all.
One of the exceptions to this general social science replication rule, are the repeated reenactments of the famous Milgram Experiment. More than four decades have passed since Yale professor Stanley Milgram conducted his research. His *Obedience to Orders* studies continue to occupy an important place in social psychology textbooks, classes, debates and discussions. The memorable black-and-white images of ordinary Americans delivering what appear to be dangerous, if not deadly, electric shocks to fellow Americans, is uncomfortable and unpleasant to watch. The implications of the findings for world-wide atrocities are not easy to dismiss. The relevant question, however, for the Twenty-first Century is: Would people behave in that manner today? A reproduction of the Experiment produced some interesting findings. Among other things, it was found that today people obey the experimenter, in this situation, at about the same rate they did 45 years ago. The American Broadcasting Corporation devoted an entire 60-minute Primetime broadcast to the research and its implications. (Burger, 2007)

This paper is not arguing for strict replication of social science research findings, but rather something that Meier calls “cross-validation,” which is exactly what many of the re-enactments of how the Milgram Experiments were conducted. Meier relates that “cross-validation” could be thought of as reproducing an earlier “study with a different data set, in a different country, or a different time period.” (Meir, 1995b, p. 662) Perhaps, something along the lines of investigating changes in public opinion over time or a time period. Let me give some examples of what I have in mind.

Charles T. Goodsell, in his classic book, *The Case for Bureaucracy* reports on local public employees feelings about their jobs. The study comes from data gathered for a paper delivered at the Midwest political Science Association meeting in 1979. (Goodsell, 2004, p. 100) Wouldn’t it be interesting to know how employees of local housing authorities and community development agencies in Houston feel about their jobs currently? How do similar employees in present day Des Moines respond to the statement: “Employees like me do not have any say about what the agency does.” A class at the University of Colorado could replicate at least the part of the paper Dr. Goodsell reports in Table 5-6 (2004, p. 100) in a semester of work. Between Boulder City and Boulder County there would be plenty of public agencies from which to interview. Not exactly replication, but more in line of a “cross-validation.” A whole new generation of bureaucrats telling a whole new generation of students, their responses to statements such as, “There are many disappointments in a job like mine.” Wouldn’t this current survey research information be worthy of an article somewhere, or a research note? Wouldn’t updating 30+ year-old knowledge be a contribution to an over-all understanding of bureaucracy in the discipline of Public Administration?

Taking this example the author induced 9 graduate student “volunteers” to administer a questionnaire in some local public offices. We took the seven statements given by Dr. Goodsell as found in The Case for Bureaucracy (p. 100). We added the final three statements so that we would have a round ten statements in survey. The questionnaire used in this survey was as follows:

**Class Project: PUBA 6306 Capstone**

Public Employees Satisfaction Survey

(Circle the response which applies)

1. Employees like me do not have any say about what the agency does.

   *Strongly agree*  *Agree*  *Not Sure*  *Disagree*  *Strongly disagree*
2. There is little the typical employee can do to bring about change in this agency.
   Strongly agree  Agree  Not Sure  Disagree  Strongly disagree

3. Employees like me can change things in the agency if they work at it.
   Strongly agree  Agree  Not Sure  Disagree  Strongly disagree

4. Agency officials do not care much about what people like me think.
   Strongly agree  Agree  Not Sure  Disagree  Strongly disagree

5. It is difficult to remain an idealist in this job.
   Strongly agree  Agree  Not Sure  Disagree  Strongly disagree

6. There are many disappointments in a job like mine.
   Strongly agree  Agree  Not Sure  Disagree  Strongly disagree

7. I often come home with a feeling of satisfaction about my job.
   Strongly agree  Agree  Not Sure  Disagree  Strongly disagree

8. Employees in my agency are satisfied with the technology necessary to perform our job.
   Strongly agree  Agree  Not Sure  Disagree  Strongly disagree

9. I feel safe while working at my job.
   Strongly agree  Agree  Not Sure  Disagree  Strongly disagree

10. In this economy, employees like me feel we have job security.
    Strongly agree  Agree  Not Sure  Disagree  Strongly disagree

The students received responses from the following public agencies:

The results (Marissa do a landscape table)

If some of these types of “cross-validation” could be done and published a goodly amount would be added to knowledge in the field of public administration. We would have some longitudinal information of a worthwhile nature to add validity to discussions of bureaucrats and bureaucracy.
Additionally, when teaching about these issues students would feel in closer touch with research that is conducted closer to their life-times. Students today were born in the
References


