

Scientific Method in social science research

my two methodological cents (by Dr. Sohn)

- ▶ **Scientific Method. What makes social science, *science*?** For some, the answer is math or statistics. Skeptics think that science is not possible in social research.
- ▶ **Another answer – the answer with which I agree – is Scientific Method.** Other types of research and analysis exist in the social sciences, including proofs (sometimes in symbolic logic), discursive analysis, normative theory, narrative history, thick description, and the like. Positive or post-positive analysis that seeks to explain causes (e.g., independent variables), outcomes, or processes should be following the Scientific Method. It applies equally to qualitative and quantitative methods; and issues of representativeness, as well as some other methodological questions, apply to each step of the research design for both major paradigms. The best in qualitative, quantitative, and/or mixed-methods research achieves each of these steps honestly, thoughtfully, and with some degree of disclosure regarding subjectivity vs. objectivity of the scholar at each step of the research (1-8, below, Slide 3); and then links the overall observations and/or argument regarding findings to wider issues in social theory and/or more field-specific theoretical frameworks. Every step on the last slide, below, must be present for Scientific Method research, including the inductive step (if we have all of the other steps but not step 3, inductive research, we are most likely engaging in proofs).

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- ▶ **Further Reading.** I am not an expert in the history of sciences, which is its own field; however, a good starting point for aspiring political science scholars might be the following texts (and take a course in the history of science as part of your training if you are interested in Scientific Method; we have great history of science courses available at UF!).
 - ▶ Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago, IL: University of Chicago Press, 2012, 50th Anniversary Edition; first published 1962 by another publisher). History and philosophy of science, competing epistemologies, and processes through which change is wrought in major scientific paradigms.
 - ▶ Charles Darwin, *The Voyage of the Beagle* (London, England: Penguin Books, 1839). Observational field research, field notes, and some of the values inherent in “thick description.” Theorizing from observational field research. Evolutionary theory and paleontology.

1. deductive theory →

2. hypothesis →

3. inductive research →
[without this step, a research hypothesis is not falsifiable]

4. methods →

5. analysis →

6. discussion →

7. reporting of findings and conclusions →

8. return to the drawing board [step 1]
[if hypothesis is refuted by inductive findings, e.g., falsifiability] →

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