POL 226: Approaches to Political Science
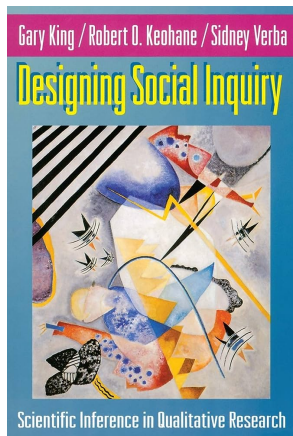
Lecture 2 - The Science in Social Science

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Plan for Today

1. Questions About the Reading

2. What Makes Social Science *Scientific*

3. The Limits of Scientific Inference

What Questions Do You Have About the Reading?

Gary King / Robert O. Keohane / Sidney Verba
Designing Social Inquiry
Scientific Inference in Qualitative Research

▶ What is the goal of the book?
  · To show that quantitative and qualitative research share one logic of inference

▶ What does inference mean?
  · The process of forming a conclusion based on facts or evidence

▶ Is all inference scientific?
  · No, not really.

Two "Styles" of Research

	Qualitative Research	Quantitative Research
Number of cases	Few (small n)	Lots (large n)
Details per case	Lots	Relative little
Data collection	In-depth interviews, focus groups, etc.	Experiments, surveys, etc.
Data analysis	Content analysis, thematic analysis	Statistical methods

Both "styles" seek to make inferences about the world through systematic procedures or data collection and analysis.

Characteristics of Social Scientific Research

According to King, Keohane and Verba (1994), social scientific research has four characteristics:

1. The goal is inference
   - We use things we can observe or measure to say something about what we have not yet observed.
2. The procedures are public
   - Our thinking and analysis should be "explicit, codified, and *public*" so others can evaluate our claims.
3. The conclusions are uncertain
   - By definition, we can never be 100% of a claim and we should communicate the degree of uncertainty.
4. The content is the method
   - Science is about the method (how you study something), not the subject matter.

Sciencitic Progress Is a Group Project

Social science, like any of the natural sciences, is a group project.

New studies refine/correct/disprove theories using new data or methods.

Small contributions to the field are still contributions.

That's Nice and All, But What Can We Study with Science?

Substantively speaking, anything (?). Political scientists study how people vote, why they participate or not, how Congress works, the influence of interest groups on policy outcomes, and whether economic development leads to democracy.

So ... **how do we use data to study these social phenomena?**[1]

▶ Measure a quantity of interest

▶ Predict (unobserved) facts/outcomes

▶ Explain a phenomenon

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[1]Llaudet, Elena and Kosuke Imai. 2022. *Data Analysis for Social Science: A Friendly and Practical Introduction*. United States: Princeton University Press.

What Can Scientific Inference Not Do?

"Many of the most important questions concerning political life—about such concepts as agency, obligation, legitimacy, citizenship, sovereignty, and the proper relationship between national societies and international politics—are philosophical rather than empirical"

— *King, Keohane and Verba (1994)*

It cannot tell us what is morally right and wrong.

An Important Distinction to Make

Scientific inference allows us to say something about how the world is.

Scientists distinguish positive claims and normative claims.[2]

▶ Positivism is an approach concerned with how things are (descriptive)
▶ Normativism is an approach concerned with value judgments and how things should be (prescriptive)

Positivist social science can help us evaluate policies, explain how people vote, or show which system of government is more stable, but it *cannot* tell us what outcomes to pursue or why people should have the right to vote.[3]

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[2]For more, "Difference between positive and normative economics."
[3]Summary of Friedman's (1953) "The Methodology of Positive Economics."

For Next Class

Read

▶ Russell, Bertrand. 1912 [2001]. "On Induction." In *Philosophy of Science: Contemporary Readings*, eds. Yuri Balashov and Alex Rosenberg, 289-93. London/New York: Routledge.

▶ Popper, Karl. 1963 [2001]. "Science: Conjectures and Refutations." In *Philosophy of Science: Contemporary Readings*, eds. Yuri Balashov and Alex Rosenberg, 294-301. London/New York: Routledge.

We're done!

Questions or comments?

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References

King, Gary, Robert O. Keohane and Sidney Verba. 1994. <u>Designing Social Inquiry: Scientific Inference in Qualitative Research</u>. Princeton: Princeton University Press / Princeton University Press.