

POLS 602 Research Techniques and Analytic Methods, Saunders 242, T 5:30-8:00 p.m.
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Office hours Saunders 616: January 12-May 6, MW 2:30-4, T 3-5 pm except holidays, and by appointment.

Department description of this course: “Quantitative models and statistical inference techniques.”

My description for this particular offering: The usual way to approach this subject of quantitative modeling and statistical inference is first to list the categories or contexts of application, then second, to list the typical statistical techniques for acquiring and evaluating data for its usefulness in furthering understanding of or coping with some problem of interest to political scientists. Notice that the emphasis is on techniques and science.

This approach has led to severe criticism, most notably by David M. Ricci in his book *The Tragedy of Political Science*.¹ Ricci concludes that this approach directs attention away from reflecting on current predicaments and how they can be addressed by improving the quality of thought that goes into political practices, a problem that when unaddressed leads research into areas of little practical value or philosophical significance. I would add further that one of the problems that professional political analysts, researchers and practitioners of politics have is a lack of understanding of the implications of differences in their paradigms (particularly scientific, philosophical, and practical or applied ones) and how they can be exploited (for better or worse).

My approach, which I invite you to join, is to look at quantitative models and statistical techniques in the contexts in which they are relevant. The usual context is the scientific one of improving knowledge and understanding in a general way, assuming that in addition to knowledge being valued for itself, that it may be applied in all sorts of contexts unanticipated by its producer. I view this as only one approach and not necessarily either achievable or generally useful as a way to address, or for that matter create, political phenomena. Why this approach is so prevalent, and what its alternatives may be, will be the subject of our first week's discussions.

For discussion January 13th (first day of class, so read ahead of time)

To get started I refer you to Shively's short Chapter 1 “Doing Research” in his book, *The Craft of Political Research*, our text for this course (you'll find other assignments online later). I also recommend reading the “Forward” and the “Preface” to get the general philosophical and genealogical background to the text. On page 4 you will find a simple 2x2 table, a research typology, using two dichotomies (whether research is applied or recreational, and whether it is empirical or not), which I will contrast with one of my own (relating to theory, data, and culture), then we'll have a discussion about it, and also a conversation about why inquiries like this are important. We will also address other topics in this very short chapter, such as

¹You can learn more at http://www.goodreads.com/book/show/334673.The_Tragedy_of_Political_Science. Ricci subsequently wrote a book on think tanks which may be of interest to you, http://www.goodreads.com/book/show/143269.The_Transformation_of_American_Politics.

evaluating research and the general issue of research ethics. See the schedule below for more details.

Weekly 3-5 page reviews/critiques related to assigned readings and class discussions

Following the first weekly session, you are expected to write a 3-5 page review, critique, or commentary, in which you take your particular research interest(s) into account, either framing it in, or contrasting it with, the various typologies introduced in the text, lecture and discussion. Alternatively, you might take a more postmodernist interpretation of such an exercise starting from the assertion that “science is merely power disguised as knowledge” and proceed to use this chapter illustratively. Such choices are yours. All I ask is that you grapple seriously with the ideas, applications, and problems presented and discussed.

This will be the usual weekly pattern for the first ten weeks covering Shively and related materials: reading, discussion, 3-5 page response. Starting with the second week I will discuss my reactions to your reviews and commentaries as well.

Multiple supplements to the text

As this first week's discussion will demonstrate, Shively's book invites substantial supplementation, which you will have in a number of forms, including his references at the end of each chapter: websites, journal articles, and my various lectures and related essays. You will also be invited to contribute readings to the class for our attention, not only so that classroom discussions may be relevant to your particular research interests and approach, but to broaden the education of everyone in the class.

We will continue in this manner throughout the semester, one chapter a week for ten class weeks, interspersed with several weekly sessions to discuss your research interests and how I might be of use to you in providing supplementary materials, then focus for a few sessions near the end of the semester on your presentations of draft research papers you are writing.

Regarding quantitative methods themselves, the usual topics will be discussed such as problems with measurement reliability and validity, nature of measurement itself, especially its dependence on our ontological assumptions. Specific statistical methods will be discussed and illustrated as we go along from chapter to chapter. A statistical package, STATA, will be used, at least by me (more about that later) to link text material with actual applications. To develop and apply decision theory, I will use “Super Decisions” (you can download a free copy at <http://superdecisions.com>; and the site has a lot of online help as well). A spreadsheet I developed some decades ago with Excel, will represent basic applications to political risk analysis. Many other types of statistical and mathematical techniques will be discussed in the contexts of their applications; but what I'll emphasize will be guided by your interests and, to coin a phrase, need to know.

The syllabus below does not include specific times for class discussion and exercises. These will depend on students interests and how I work them into the class schedule. Expect revisions to this schedule. The lectures related to the readings should take about half the class time, the rest will be discussion so be prepared with questions relevant to the topic and

your interests. If there are articles or books you would like me to related to, let me know about a week in advance.

Research design paper

Your work in this course should have a focus. Pick a topic or two of great interest to you and relate the coursework to the topic. The 3-5 page papers may help you do that. As the course progresses so should your work on your own research design, relating to some aspect of the materials discussed in the course. You will present your work near the end of the semester, taking perhaps half an hour, followed by discussion.

Week Readings and Related Topics

1. Week 1 Tuesday 1/13/2015:
 - read Shively, Ch. 1, preferably more than once, and once before class. To understand his orientation to political analysis and theory building read the Forward and his Preface.
 - Compare his 2x2 typology of political research (p.4ff) with the one I'll introduce in my first lecture (the theory-data-culture or TDC triangle I developed).
 - What are the uses to which political research is put, what motivates the researcher? What do you think? Write it down. What does Shively say (p. 2)? Do you agree?
 - What does Shively say about the complexity of a theory relative to the problem being studied (p. 3f)? Why are exceptions important? Is there a cultural imperative or psychological predisposition that we struggle against when we tolerate exceptions?
 - Go to Wikipedia and look up the following three scholars: Alfred Korzybski, David Easton, and Max Weber.
 - For Korzybski, read the first paragraph of the "Anecdotes" section. What does the narrative suggest in terms of political theory, political propaganda, and political culture? Are such inferences "researchable?"
 - For Easton, read the first three paragraphs in the "Scholarship" section. Do you see how his changes in motivation match/fit Shively's typology? The TDC model? What role does failure play in the life cycle of a scholar?
 - For Weber, read the "Legacy" section. (If you understand it at first reading, please tell me how you did it!) It describes the putatively profound impact one scholar with a few simple ideas can have on a society, or at least its "intellectuals." How does one evaluate such assertions?
2. 1/20/15 Shively Ch. 2 "What Does Good Theory Look Like?" on theory, causality (time precedence, manipulation, explanation), and values (elegance: simplicity, prediction, importance)
 - Dimensions of "importance:" understanding, achievement, and transcendence
 - Examples: explaining, evaluating voting patterns, war, financial corruption
 - Research strategies:
 - Standard empirical research pattern (theory, hypothesis, data, analysis)
 - Problem selection ("Machiavellian") criteria: generalizability, weakness, clarity in design and in presentation.
3. 1/27/15 Shively Ch. 3 "Importance of Dimensional Thinking,"

- “Usefulness” of research related to agreement on its meanings
 - Multiple (contextual) meanings of natural language problematic for research in all paradigms (science, practice, philosophy)
 - Beyond multidimensionality; recalling Korzybski's “the map is not the territory”
 - Reassessing causality and the “standard model” in empirical research
 - Critical significance of the “null model” in empirical research (applied or “recreational”)
 - Discussion of student research topics
4. 2/3/15. Shively Ch. 4 “Problems of Measurement”
 - Reliability, validity, and accuracy. Personal example from the DON Project (significant across at least two paradigms, scientific and applied.
 - Discussion of student research topics
 - *I will leave for New Orleans right after class, to attend the International Studies Association conference to participate in a panel discussion of Rudolph Rummel's contribution to international relations theory and research (see his website, <http://www.hawaii.edu/powerkills/>). My assignment is to discuss “field theory.” I'll circulate a draft of a short paper on the subject.*
 5. 2/10/15. Shively Ch. 5 “Problems of Measurement: Precision”
 - Nominal, ordinal, interval, and ratio measurement (and disagreement with Shively)
 6. 2/17/15. Shively Ch. 6 “Causal Thinking and Design of Research”
 - Nature of “causation” (time precedence, manipulation, explanation)
 - Manipulation: experimental and quasi-experimental methods in political science and political practice, and related ethical issues (political philosophy)
 - Ways to go wrong: effects of spurious and intervening variables
 - A postmodernist reassessment of causal thinking: information theory and creativity
 7. 2/24/15. Shively Ch. 7 “Selection of Observations for Study”
 - Selection of “cases” - random, quasi-random, purposive
 - Problems: censorship, cherry picking, natural censorship, selection along the “dependent” variable
 - Value of a single case study
 8. 3/3/15. Shively Ch. 8 “Introduction to Statistics: Measuring Relationships for Interval Data”
 - Review the concept of the “null model” in both descriptive and inferential statistics
 - Interval and ratio scale data: Pearson's R
 9. 3/10/15. Shively Ch. 9 “Introduction to Statistics: Further Topics on Measurement of Relationships”
 - The 2x2 table of frequency data, Yules Q.
 - Missing in analysis: concepts of necessity and sufficiency
 - More than two categories, Gamma
 - Mixed measures: categories or ranks with interval or ratio independent variables
 10. 3/17/15. Shively Ch.10 “Introduction to Statistics: Inference, or How to Gamble on Your Research”
- SPRING RECESS MARCH 23-27**

I usually leave the rest of the time open for several reasons. First, we may not keep the above schedule due to greater interest in some topics. Second, we may want to break the 10 weeks up into, say, three weeks of three chapters, then a week to discuss your research

interests, then three more weeks of Shively, then another week of your interests and so on. Third, we need time at the end to have you present your research design topic (may be with an illustrative example or two). How we organize this depends on your expressed needs and interests.

See you Tuesday.

Prof. Chadwick