COURSE DESCRIPTION: This seminar introduces students to the theory and practice of research in the social sciences generally and Political Science in particular. The seminar begins at a high level of abstraction by engaging the twin questions: “how do we know what we think we know,” and, “how can we communicate that knowledge to others in ways they will accept/believe?” We draw upon a rich but sometimes difficult literature on the philosophy of science to try and understand the nature of science, the difference between good science and pseudoscience, and whether social and political phenomena can be studied scientifically. As part of this discussion we consider a brief history of Political Science focusing on the main schools of research in Political Science from the late 1800s through today. The seminar then examines the basic elements of empirical research including theory construction, concept formation, observation and measurement, and causal inference. A mixture of readings, both theoretical and applied, are assigned in an effort to prepare you both to evaluate existing research and to design a significant piece of original research on your own. By the end of the course, you are expected to be able to understand and apply the basic concepts of research design to political science research. You also are expected to be able to read the existing literature in Political Science with a critical but sympathetic eye and to be able to design and carry out original research project capable of answering important, theory driven, nomothetic questions in Political Science.

RESEARCH Design/Paper: The principal requirement of this course is the design and execution of an original piece of nomothetic, empirical research of the sort that might be published in one of the top journals in the field. This assignment integrates in a very practical way the various elements of the course along with the statistical skills acquire in POL 582. It provides an opportunity to apply the abstract theoretical lessons of the course to a research project focused on a theoretically driven, empirical question.

The paper is to be developed in two stages, beginning with a research design. The research design should identify the question, review the relevant literature, identify competing hypotheses, and discuss the key conceptualization and measurement of key variables in the hypotheses. This section should be between approximate 8-12 pages in length.

The second half of the paper involves the actual measurement of variables, the statistical analysis of the hypotheses and the reporting of your results and conclusions. This section also should be about 8-12
Both aspect of the paper must be typed, double spaced with 1" margins (top, bottom, left and right) and a font no smaller than this (Times New Roman 11). An extended discussion of the elements of a good research design/paper is included in an appendix to this syllabus.

**READINGS:** Most required readings are available either through JSTOR or via the course WEB site at [http://www.u.arizona.edu/~mishler/courses.htm](http://www.u.arizona.edu/~mishler/courses.htm). The books listed below are used extensively and can be ordered online from amazon books (http://amazon.com) for prices significantly less than the U of A bookstore typically charges.

**Required:**


**Recommended for your personal library:**

- Gary King, Robert Keohane and Sidney Verba, *Designing Social Inquiry* Princeton University Press, 1994. 0-691-03471-0 ($30 from Amazon but lots of used copies should be floating around the dept).

**COURSE OUTLINE:** Readings for each week should be finished before the class in which they are discussed. Normally it is best to read them in the order they are listed. It also frequently is helpful to skim back over the readings the day after class since things that seemed difficult to follow before class often make more sense afterward. At least that is the hope!

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Readings: All readings should be completed before they are discussed in class, Therefore you should do the readings for September 9th, during the week of August 26 to Sept 1st.
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**September 9**  
**Science, Pseudo-Science, Social Science**

*The readings for this first topic attempt to define science and to distinguish “real” science from pseudo-science or quackery. The articles by Klotz and Harre describe two episodes in the history of science: one episode is described as "Great Science"; the other is disparaged as an "affair." What distinguishes the two cases? What is Science and what are its principal characteristics? Assuming we can agree on what science is, to what extent can social (i.e., human) phenomena be studied scientifically? Consider Machlup and KKV’s arguments.*

Readings:

- Marsh, Chapt. 1
- BESTIARY, Chapt. 5-9
- Gerring, Preface & Chapt. 1 and 2.
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The readings for this topic provide an overview of the “reconstructed” history of the discipline of Political Science. The readings focus on the development of the discipline from traditional institutionalism, through the behavioral and post-behavioral revolutions, the rise of rational choice and neo-institutionalism and the qualitative vs. quantitative debate among others. Attention should be paid to both the continuity and the changes in the questions that occupy Political Science across the different historical/intellectual periods as well as to the evolving theories and methods of inquiry across these periods. In what sense(s) was behavioralism revolutionary? What was the behavioralist critique of “traditionalism” or “institutionalism” against which the behavioralists were rebelling. What were the principal substantive and methodological innovations of behavioralism? Dahl and Easton agree that the behavioral revolution has ended but disagree on the nature of the ending. How so? To what extent is post-behavioralism a revolution or counterrevolution? What is neo-institutionalism? Eckstein advances the argument for a cultural theory of politics as the main alternative to rational choice. On what basis does he advance this argument. What according to Almond are the “separate Tables of the discipline and what does he say about this? And what does all of this have to do with Quantitative vs. qualitative differences?

Readings:

Robert Dahl, "The Behavioral Approach in Political Science: Epitaph for a Monument to a Successful Protest" APSR (December, 1961) JSTOR
Marsh, Chpts. 2-4, 13, 14
This week's readings provide an overview of the arguments advanced by positivists and neo-positivists regarding the nature of scientific inquiry. In particular, attention focuses on the orthodox view of theories and the relationship of theory to observation. Objections to the orthodox view are noted and a variety of neo-positivist approaches are advanced and discussed. Be prepared to describe the orthodox view of theory as described by Moon. What is the process of explanation provided by this account? On what basis does Moon reject the orthodox view of theory? Contrast the confirmationist and falsificationist positions. Moon raises concerns about "pure observation" based on what we will call the "theory ladeness" of observation. Explain. How does this relate to Moon's (p. 148) argument that, "Tests of theories 'are -- at least -- three-cornered fights...'? In Ball's discussion of the accounts of scientific practice presented by Kuhn and Lakatos, why are Kuhn's claim's about paradigms rejected? Indeed, what is a paradigm? Ball argues that, "Discipline's do not grow and develop by simple accretion"; explain his view. What conclusions does Ball reach about political science? How does all of this tie into the distinction the Bestiary makes between the New Philosophy of Science and Constructivism?

Readings:
Terrence Ball, "From Paradigms to Research Programs: Toward a Post-Kuhnian Political Science," in Theory Building and Data Analysis in the Social Sciences, Univ. of Tennessee Press, 1984, pp. 23-49.
BESTIARY, Chapt. 1, 2, 10-11, 13

Assignment for next week: Identify three “nomothetic-causal” research questions that you find potentially interesting. Each question should be framed as a “why” question or “what are the causes...” question, or “under what conditions...”. For example, Why don’t democracies go to war with one another? What are the causes of popular support for democracy? Under what conditions do democracies fail? Why do people participate in or abstain from politics? For each of the three questions identified, write a brief paragraph indicating why you think the question is interesting (not just why it is interesting to you, but why others should be interested). You must put your (typed) list of questions in my Department Mail Box by the end of the day on September 24th.
All research starts with a question. Defining (not finding) a good question is critical to everything that follows. Theories are attempts to answer the questions we ask and are the lifeblood of science. But what, exactly, is a theory and how does one distinguish better theories from worse theories? On what bases do we judge one theory superior to another? What are hypotheses and how are they similar to, different from theories? How many theories and hypotheses does one need at a time? What are the relationships among questions, theories, hypotheses, and answers? What are the implications for doing research without one/all of the following: a question, a theory, a hypothesis?

Readings:
GEDDES, Chapt. 2.
G. R. Boynton, "On Getting from Here to There: Reflections on Two Paragraphs and Other Things," *Strategies of Political Inquiry*, Sage, 1982, pp. 29-68. WEB
BESTIARY, Chapt 12
GERRING, Chapt 5

Assignment for next week: Pick one of the questions previously submitted (or another that your prefer and have cleared with me). Identify 5 articles/books from the literature that report research on your topic, published since 1990 (at least two of which were published in the APSR, AJPS, JOP, BJPS, World Politics, International Organization, Comparative Politics, Comparative Political Studies) and write one paragraph on each selection that summarizes the primary conclusion, the method used and the type of evidence employed.
Concepts are the basic building blocks of theory; they also are "mini-theories" in their own right. Sartori advances the idea that "language is constitutive of reality." What does he mean by this? How is this related to Whorfism? How is this similar/different from constructivism? How does this relate to his contention that concepts are "units of thinking?" Sartori claims that the intention and extension of a concept are "crucially interrelated." Explain the relationship. Gerring lists a variety of qualities by which to judge concepts. Be prepared to discuss these.

Observation is what makes concepts and theories empirical, but the process of is not as simple or objective as it seems. Even in the "hard" sciences observations are "theory laden." There are special problems of observation in the Social Sciences.

Readings:
- **GERRING**, Chapt. 3 & 4

Assignment For next week: Identify three inter-related hypotheses from the literature that purport to explain your research question. For each hypothesis identify the principal concepts and provide nominal and operation definitions of each of them. Identify both the intension and the extension of these concepts.
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What is the relationship of observation and measurement? Of measurement and quantification? Of Quantitative and Qualitative measurement? What are the different levels of measurement and what are the implication of these differences. What is the difference between measurement validity and reliability and how do we assess each. Scaling has many purposes: improving validity and reliability, increasing variation in our measures, raising the level of measurement (from nominal to ordinal to interval etc). Scaling procedures come in many varieties but can be divided broadly into unidimensional and multidimensional. Be prepared to discuss the similarities and differences.

Readings

BESTIARY, Chapter .
MARSH, Chaprs 9-11.


John McIver and Edward Carmines, Unidimensional Scaling, Sage University Paper Series: Quantitative Applications in the Social Sciences # 24, 1981. WEB

GEDDES, Appendices A, B & C

Assignment for next week: Identify a data set with which to test your theory. For each of the variables in your theory, please identify one or more possible variables that could be used to measure the concept.
October 21

Units and Levels of Analysis; Sampling and Case Selection

Political Science research occurs at different levels ranging from individuals (micro), to groups (macro) of increasing size (committee, party, ethnic group, nation-state). Selection of the appropriate unit and level of analysis are important considerations. Once the “proper” level and unit of analysis are determined, the researcher must then decide which specific cases to study. Since it usually is not possible to study the universe of cases, a sample of cases must be identified and in ways the maximize variance and minimize bias. Brodbeck examines the issue of group properties and argues for a distinction between metaphysical holism and methodological individualism. She further argues that different issues are raised by "descriptive emergence" and "explanatory emergence." Explain the distinction and how these issues are settled. What does all of this mean about our ability to measure "political culture" or the "public interest" using, say, survey research? How would proponents of descriptive emergence respond to these efforts? How about proponents of explanatory emergence? How then can we study political culture or the public interest? Gerring, Geddes and KKV discuss the selection of cases and problems of selection bias. What are Gerring’s criteria for selecting cases and what are Geddes and KKV’s concerns?

Readings:
BESTIARY, Chapter 3.
GERRING, Chapt. 8
GEDDES, Chapt. 3.
Any Chapter on Sampling from a Research Methods Textbook

Assignment for Next Week: Identify the level of analysis, unit of analysis and cases to be used in the research you are designing. Justify the selections.
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Assessments of cause and effect are fundamental to scientific inquiry, yet, cause and effect can never be known with certainty. Explain. How then can we approach causal interpretations in science? Cook and Campbell discuss and reject Hume's three conditions for inferring causation. Explain Hume's conditions and Cook and Campbell's rejection. Explain the essentialist view of causation also rejected by Cook and Campbell. Identify the three conditions for causal inference asserted by John Stuart Mill. Cook and Campbell appear to agree with this position. Explain their argument. How is this similar or different to the idea of causality advanced by KKV? What does Rosenberg mean when he says a relationship may have different meanings? How do you determine the meaning(s) of a relationship? For that matter, what is a relationship? What is meant by the process of elaboration? How is this connected to the idea of a causal sequence? Explain the idea of controls? What are the uses and limitations of controls? Cook and Campbell, identify at least three different uses of the term control. Distinguish them. KKV argue that the assessment of causality is the same in all research whether qualitative or quantitative. Explain their argument. What do you think?

Readings:
- **GERRING**, Chpts. 6 & 7.
- **COOK** and **CAMPBELL**, Ch. 1

**Assignment for Next Week:** Draw a causal model of your principal research hypotheses.
Validity and reliability were discussed previously in terms of concepts. These terms also are of relevance and need to be confronted when considering the measurement of relationships. Indeed, a major purpose of the research design is to anticipate the most serious threats to the validity of our research so appropriate controls can be constructed. How do Cook and Campbell distinguish validity and reliability? Be prepared to distinguish the four types of validity. How are these similar to / different from the terms validity/reliability previously discussed in the context of concept development? What are the uses and limitations of randomization as a means of "ruling out" threats to internal validity? How are threats to external validity assessed? Which threats to validity should have priority for political scientists: for example in testing theories of voting behavior, or studying the causes of war, or seeking solutions to poverty in a particular country? Consider also KKV concerns about Omitted Variable Bias and about Irrelevant variables.

Readings:
COOK AND CAMPBELL, Ch. 2. WEB

Assignment for next week: Identify what you consider to be the three most important threats to validity for your research design and discuss how you will handle them.
November 18    Research Designs: Case Studies, Comparative, and Statistical Methods

Arguably all research involves comparison, but the comparative method is usually used to describe research that focuses on a small number of cases in some depth. Lijphart argues that the comparative method is synonymous with the statistical method but in situations where the number of cases is too small for statistical analysis. Przeworski, however, disagrees. You should read Lijphart's articles together since they cover some of the same ground. Both articles deal with the "many variables-small N" problem. What is this? Why is it important? What are some different strategies for solving the problem? What are their strengths and weaknesses? What are the characteristic properties and distinguishing features of what Lijphart describes as the experimental, statistical, comparative, and case study methods? With respect to the comparable cases method, how is comparability determined? Przeworski and Teune and disagree with Lijphart on the value of using most-similar systems designs as controls for extraneous variables preferring most-different systems designs instead.

Readings

GERRING, Chapt. 9.
MARSH, Chapt. 12
BESTIARY, Chapt. 4.


GEDDES, Chapt 4.
Experimentation is the classic mode of scientific observation and is highly valued for its ability to control extraneous influences, maximize internal validity, and assess causality. It frequently sacrifices external validity in doing so, however. While experimentation traditionally has not been a major research tool in Political Science, its use has greatly expanded over the past twenty-five years. Moreover, Political Scientists have long relied on ‘natural’ experiments and on quasi-experimental methods to approximate the methods of experimentation. Cook and Campbell build on the experimental approach and focus on what they call “non-equivalent control groups. What is this? What are the most important risks (i.e., threats to validity) and rewards associated with each of the nonequivalent control group designs they discuss? What factors should influence your choice of one design over the others in your research? Although Cook and Campbell rely heavily on sociological examples, all of the designs they discuss have obvious political science application. Be prepared to identify an example of each. Think of a recent article you have read: what type of design is used in that research? Is the design explicit or implicit in the article? What additional threats to validity do KKV introduce?

If we want to know how people think, why not simply ask them? Beginning with this basic premise, survey research, elite interviewing and conversation methods more generally are among the most common observational strategies used in political science. The quality of survey research, however, depends critically on sample selection, response rates, question wording and question context. Even then, there are limits to the use of survey research. John Dryzek (who took a variant of this course from me 30 years ago!) Raises some of the most fundamental concerns about the uses of surveys. Consider his arguments carefully. How else might one understand public opinion? What special problems do we encounter when trying to interview elites? Surveys sometimes are criticized for creating ‘non-attitudes’ and essentially putting ideas into people’s heads that otherwise were not there. Unobtrusive measures try to avoid this. What are they and how do they work?

Readings:

GERRING, Chapt. 9.

COOK AND CAMPBELL, Ch. 3. WEB


Richard Fenno, Homestyle: House Members in their Districts, Read Appendix. WEB

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Research Paper Assignment

A principal requirement of this course is the **design** and **execution** of a theory driven, data based (i.e. quantitative) research paper focusing on a question of contemporary interest in political science. The assignment is intended to provide the opportunity for students to apply, in a very practical way, both the abstract lessons of this course and the statistical skills developed in POL 582 with Professor Westerland.

The research paper must be typed, double spaced and should be between about 15-25 pages in length with 1" margins (top, bottom, left and right) and a font no smaller than this (Times Roman 11) inclusive of tables, footnotes and citations. The design must be stapled in the upper left corner (no paper-clips or binders).

What, then, are the elements of a good research design/paper? A substantial part of this course is devoted to answering this question. Indeed, the structure of the course generally follows the structure of a good research paper with each week's readings focusing on an important aspect of the research process. Briefly summarized, however, a research design is an intellectual blueprint. It describes and defends a plan of research intended to answer an interesting question. It describes and defends the strategy you propose to follow in trying to answer an interesting question.

Although the specific elements of a research design will vary with different topics, there are two fundamental aspects to all designs. First, you must identify clearly and precisely the research question you want to answer and justify its importance. Second you must describe in detail how you intend to answer this question and justify your choice of strategies. Key to both parts of the process is to linking your research is existing theory (or theories) embedded in the relevant literature (i.e., previous research) on the subject.

More specifically, a good research design has all of the following elements:

1) **A statement of the research question.** A good research question is one whose answer is likely to contribute to theory or fundamental knowledge. Good questions are grounded in the existing literature. Frequently they seek to resolve an anomaly in theory -- to reconcile a theory with an observation that doesn't seem to fit -- or to reconcile competing theories, or to fill in a missing piece or close a gap in existing theory. Good research questions frequently begin with the question, "Why ...?" They seek explanations for political actions or events and not simply descriptions of them (although description can be an important step in the process of explanation).

2) **A review of the literature.** Good research questions frequently emerge from a review of the literature/existing research on a topic. In reading about a subject you find that you are not convinced by the explanation the author offers because, for example:

   a. you think the author's research methods are flawed, inadequate, or inappropriate to the subject (e.g., the author draws conclusions about adult voters from a study of high school students;

   b. you believe the authors failed to consider plausible alternative explanations (e.g., in explaining political violence you think the authors made a mistake by failing to consider rational choice as a possible cause;
c. you think that the author's results are limited by time or space (the author's explanation for political participation in the United States may not be appropriate in your experience for explaining political participation in non-industrialized societies or the results of a study of voting in 1950 may not be relevant in 1990 when parties are much weaker and campaign spending much greater); or

d. there is a "gap" in the literature in that there just does not appear to be any research on what appears to you to be an important question. (Be careful, here. Not all 'gaps' need to be filled. There is no research of which I am aware that studies whether the effects of hair color on voter preferences. Nor can I imagine any good reason for trying to close this gap.)

Even if you have a research question in mind before you start a project, the first step in developing a research design is to review prior research on the topic. This review should summarize, synthesize, and critically evaluate the literature as a whole. (CAUTION: The focus here, should be on the literature as a whole. A literature review is NOT an annotated bibliography nor is it a series of article and book reviews stuck together, one after another. Rather, the focus should be on types of research on the subject and their respective strengths and weaknesses. The idea is to concentrate on the forest and not allow yourself to become preoccupied with individual trees in the forest.) Your discussion of the literature should emphasize the strengths and weaknesses--both theoretical and methodological--of existing work. Presumably, the research you propose will attempt to build on these strengths while improving upon the weaknesses. It is the proposed improvements to the literature that your work both original and interesting.

3) A statement of theory and/or hypotheses. Your design needs to identify the specific propositions and research hypotheses to be examined or "tested" in your research. It also should discuss how these propositions were derived -- a process that typically takes you back to theory and the extant literature. At the very least you should evoke theory (a set of explicitly stated and logically related ideas about the relationships among the phenomena under consideration). As we will see in the course, research that explicitly considers multiple hypotheses or competing theories usually produces the richest results. Designs that focus on a single theory or seek to test a single, isolated hypothesis generally are less interesting, though they still can be useful.

4) A discussion of concepts. Having identified one or more hypotheses you need to identify, define, and operationalize the central concepts in those hypotheses. Your task is to indicate as clearly as possible what your concepts mean and how you will recognize them when you observe them in your research. For example, if your hypothesis concerns the relationship between political participation and economic development, what do you mean by economic development (aggregate wealth? per capita wealth? Something else?) What, specifically, would convince you that one country is more economically developed than another? And how is your conceptualization of development better than other that may have been used in previous research? In addressing these issues, you should build as much as possible on previous literature.

5) An observation and measurement strategy. Here you should discuss how you intend to observe the concepts that are the foci of your hypotheses. Having developed a set of operational definitions and measures, how will you observe and collect evidence or data pertaining to them? You need to justify the observation strategy as being both appropriate (i.e., it will produce evidence appropriate to test the theory) and feasible (a scholar reasonably can observe what you want to observe).
6) **A testing strategy.** How will you assess the relationships between the concepts in your hypotheses? What will convince you that the hypothesized relationships exist or do not exist – that they are causal or not? What will convince you that the theory/hypotheses you are testing are "right or wrong”? More specifically, how will you use the evidence you have collected or the observations you have made to test the theory and determine whether it contributes to an understanding of the world. This aspect of the research design rests heavily on the lessons you will learn in your statistics course, POL582.

7) **A consideration of "threats to validity" and a strategy to “control” for these threats.** As part of a testing strategy, your research design should anticipate and provide controls for the principal threats to validity that confront your research. Are there rival hypotheses (other possible explanations) that you need to consider and control? Is it possible that the relationship you are measuring is spurious and not causal?

Of course, no matter how careful and thorough you have been in developing your research design, you cannot control for everything. There is no perfect yet feasible research design. All research strategies have inherent limitations. You need to discuss these limitations explicitly and consider their likely consequences for the research you propose. In essence, you will try to identify alternative (and presumably less theoretically interesting) interpretations of likely conclusions of your research. This has two purposes. First, it provides an explicit framework for you to explore the limits of the proposed research (what we reasonably might be able to conclude from this research and what alternative conclusions we probably will not be able to rule out). Second, it forces you to anticipate the limits of your design in advance and gives you the opportunity to strengthen the design, if possible, before undertaking the research.

Although all of these topics need to be addressed in any good research design, they do not have to be addressed in any particular order. You are free to address them in whatever way you feel best able to communicate to the reader the research question that concerns you, why you think it is important, and how you intend to pursue answers to it.

At this point, much of this discussion may seem very abstract and confusing. Don't panic. As the course progresses, the elements of the design should become much clearer and more concrete. Moreover, we are going to help you develop your research in stages so that you can build each part on what you have done before.

Earl Babbie, *The Practice of Social Research* provides a detailed discussion of research designs in Chapter 4 and throughout the volume. To further enhance your understanding of the research process and to assist in the critical first step -- to identify a good topic -- you also may want to consult the following source books.


