Assignment I Preliminary Research Design

Answer each of the following questions in a few words or a sentence or two. The entire exercise should take no more than two pages; one page will be sufficient in many cases. Do not try to synthesize the answers in an essay. Answer questions 3, 5-9, and 11 in complete sentences. Due Oct 16, 5:00 PM in my box or as an email attachment.

1. What difference or anomaly do you want to explain? [This question asks you to express your research puzzle in terms of the difference in outcomes that you want to explain.]

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- 2. What is the title of your project?
- What is your best guess at the present time (your principal hypothesis) about the cause of the difference or anomaly you want to explain?
- 4. Use a diagram or equation to represent the relationship you think exists between your principal hypothesis and the outcome you want to explain. Consider whether you think may not relationships are linear.
- Every hypothesis has observable implications, meaning that if the hypothesis is true, you should see certain events or relationships in the real world. If your principal hypothesis is true, what real world events or relationships should you be able to see? List as many observable implications of your principal hypothesis as you can think of. Observable implications can be events, votes, answers to survey questions, growth rates - anything that can be observed and that you would expect to be able to observe if your argument were true.
- What concrete evidence would you need to obtain in order to demonstrate in a preliminary way that one of these implications can in fact be observed in the world?
- Identify potential rival explanations (that is, explanations different from your principal empirical hypothesis) for the outcome you want to explain.
 - 8. What evidence would you need in order to decide which of the various contending potential explanations you have identified (in #3 and #7) best explain the outcome that interests you?
 - 9. What other factors impinge on the causal relationship you care about? (An impinging factor is something that affects the outcome you want to explain but that has no theoretical significance. If, for example, you hypothesize that land reform increases agricultural productivity, rainfall is a factor that impinges on the relationship between reform and output, but in Political Science we do not consider rainfall theoretically interesting.)
 - 10. How might you use case selection or other aspects of research design to control for the effects of impinging factors?

11 If your principal hypothesis (#3) is supported by evidence, what current theories or policies should be affected by what you discover?

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Assignment II

Please respond to each numbered item separately, rather than trying to integrate everything into an essay. Assignments are due Thurs, Nov 6.

- 1. Title: (probably same as for first assignment)
- 2. What difference or anomaly do you want to explain? (probably a <u>concise</u> version of your answer in the first assignment)
- 3. What is your best guess or principal hypothesis? (again, probably a concise version of your answer in the first assignment)
- 4. List as many <u>observable</u> implications of your principal hypothesis as you can think of. Write these out in complete sentences, e.g., if X causes Y, then I would expect to see Z under W circumstances because... (Do not write: "an observable implication of my hypothesis is Z.")
- 5. Identify at least one <u>serious</u> rival argument that might also explain the outcome you care about.
- 6. List as many observable implications of the rival hypothesis as you can think of.
- 7. What <u>concrete</u> evidence would you need in order to show that events in the world are either consistent or inconsistent with the observable implications listed above? (If you have thought of many implications, you need not discuss evidence for more than three of them, but be sure to include at least one implication of the rival hypothesis in your discussion of evidence.) Use <u>sentences</u> to link evidence to particular implications. Say <u>why</u> certain evidence would lend support to or undermine a particular hypothesis.
- 8. Can you think of a crucial test that would unquestionably distinguish between your principal hypothesis and a serious rival? That is, can you think of evidence that, if found, would be consistent with one hypothesis and inconsistent with the other?
- 9. Are there factors that impinge on the relationship of interest that you will need to control for? If so, <u>how</u> can you control for them? If you're doing a small-N study, think about how you can use case selection to control for factors that impinge on the relationship you care about.
- 10. What cases (observations) will you include in your study? Can you think of any ways that your case selection might bias your results? What role, if any, will case selection play in helping to distinguish between your hypothesis and its rival? How will case selection help to isolate the relationship of interest to you from other factors that might impinge on it?

Assignment III

Please respond to each numbered item separately, rather than trying to integrate everything into an essay. The most important parts of this assignment are #7 and #8. Assignments are due Monday, December 1, in class.

- 1. Title: (probably the same as for last assignment)
- 2. What difference or anomaly do you want to explain? (probably the same as your answer in the last assignment)
- 3. What is your explanation, argument, or best guess? If comments on your last assignment suggested that your argument was unclear or ad hoc, try to articulate it in a more cogent way. If the argument has multiple parts, try to pull them together into a coherent whole. If your argument arises from a formal model and you've had trouble articulating the argument clearly, you may want to include the model along with a careful explanation of what its terms mean, assumptions, and which elements of the model produce the result of interest.
- 4. List (concisely) up to three of the most important rivals to your argument.
- 5. List at least one observable implication of your principal hypothesis and each rival hypothesis.
- 6. What <u>concrete</u> evidence (e.g., what specific data, survey responses, statements in memoirs of participants) would you need in order to show that events in the world are either consistent or inconsistent with <u>each</u> of the observable implications listed above?
- 7. Where and how will you find such evidence? Check now to make sure it is possible to find the evidence you need. (This question asks you to make a serious effort to find data sources. For example, go to the Public Affairs Service at the library to find out whether they have government documents containing relevant information from the countries you need. Or check internet sites to see if you can find the specific information needed for your project.) Discuss in detail the evidence you will need and where you found it or will find it. If you discover that you cannot locate evidence, then the implication is not observable, and you will have to think of another one. If your project is so far along that you have already located all the basic data you need, use this assignment to work on locating or creating data you think could add to your project but that are unavailable off-the-shelf.
- 8. Show preliminary evidence (in the form of a scatterplot, table, regression results, or other clear and concise method) that your preferred explanation of the difference or anomaly you want to explain is either false or not false.
- 9. If the preliminary evidence you found fails to support your preferred explanation, suggest a revision of your principal hypothesis.

Assignment 4 Research Proposal

Write a preliminary research proposal of five to ten pages. The proposal should be written in ordinary English, using NO unnecessary statistical or political science jargon. Due Dec. 15. I will be out of town; so please send the assignments as email attachments.

The proposal should include the following elements, but should be written as an essay. You can use subheadings if you wish.

This assignment is a tinplate for funding and dissertation proposals, which need to include the elements below. Funding proposals are often reviewed by non-Political Scientists and nearly always by people from outside your subfield, so try to write so that such a person can understand what you plan.

1. An introduction, which should include:

A clear, concise statement of the research question

A discussion, accessible to non-political scientists, of why your question is interesting. (If your study has attractive normative implications, make the most of them here. If it challenges an existing literature or widely accepted theory, say so here.)

A simple summary of your proposed answer to the research question that makes clear WHY you expect what you do (even if the explanation of why is included in prior research).

- 2. A short literature review covering only the literatures from which your own and rival hypotheses are drawn. Be ruthlessly concise in this section. No one reviewing a research proposal wants to read the intellectual history of your subfield. At the same time, be sure to describe how the specific question you are investigating is linked to interesting theoretical ideas in your field. Rival arguments should be covered in this section.
- 3. A discussion of your tentative argument that focuses on the mechanisms that connect one part with the next. Make sure every step in the logic is clearly spelled out, plausible, and supported to the extent you can determine at this stage by evidence. This is the place to include your preliminary check of the evidence from Assignment 3 if it came out well.

4. Data and Methods:

If you are testing implications of the argument described above rather than the argument itself, explain how and why the argument leads to each hypothesis.

Operationalization: explain how you will "measure" the outcome you want to explain and the causes you think are important (including those necessary to test rival arguments), and how you will assess relationships between them. Identify what evidence (that is, what specific facts) you will need in order to decide whether your argument or one of the rivals better explains the outcome you want to explain.

Describe in some detail where you have found or how you will gather the evidence you need (e.g., interviews, archival research, data for statistical analysis). Include in this section information about where evidence is located and what arrangements you have made for using it. This is the place to mention any preliminary research trips you have made, people you have contacted, institutional affiliations you have arranged, natural experiments you have discovered, data you have previously collected or ordered from ICPSR, NES, or other sources. If you will need to gather your own evidence (e.g., do a survey, conduct experiments), explain what and how you plan to do it in as much detail as possible.

Discuss the ways you propose to use the evidence to assess various arguments. If you plan to use statistics, discuss problems with endogeneity and other challenges that you will face, but focus on substance, not the names of statistical models. If the project is not quantitative, be as rigorous as you can in articulating how you will use comparisons (among cases or across time) to assess the usefulness of different arguments. Include in this section information about what cases or observations will be included and why you chose them.

7. Conclude with theoretical and/or policy implications of your research findings: what do you expect this study to add to our understanding of some broader theoretical question? If the study comes out the way you expect, what will its policy implications (if any) be? What you say here relates back to the introduction in which you described why your research question is interesting.