

DEPARTMENT OF POLITICAL SCIENCE

PECOS4021 - Research Methods

26 September 2019, 09:00 (4 hours)

4 hours in duration

Short-answer questions:

Please answer *all 6 questions* below. Suggested use of time, in total, for all short-answer questions is 2 hours (weight: 50% of exam)

S1)

Account for the defining features of the experiment as a research design, and discuss in brief how statistical work, according to Lijphart, seeks to approximate the logic that experiments allow for.

The experiment seeks to verify a (causal) relationship between a selected variable and an outcome while neutralising the effect of other variables. In an experiment this is done by (1) separating, through probability sampling, a treatment group from a control group; (2) subjecting the treatment group to manipulation of a key, assumedly causal variable, and (3) measuring the effect on (the units in) the treatment group. Notably, (3) is obtained by comparing before and after treatment as well as between the two groups.

Statistical work seeks to approximate the experimental design by calculating separate estimates for each independent variable in a causal model, neutralising or “controlling for” the effect of other variables.

(4p)

S2)

Case studies are typically considered to perform well on internal validity, but to be less convincing when it comes to external validity. Define the two concepts and elaborate on why the case study might be better suited to the one than to the other.

Validity generally concerns the extent to which empirical measures provide an accurate reflection of concepts or theory. Internal validity refers to whether a causal relationship between X and Y is accurately estimated in the relevant case or sample. External validity refers to whether observations in a case or sample accurately represent a broader population.

The case study design often gives particular opportunities to follow a process or relationship in-depth and over time, relying upon a wealth of data, thus breaking the constraints of a specified data set. This would be beneficial to the pursuit of a causal argument and thus for internal validity. High external validity, by contrast, would be more difficult to accomplish since a case study cannot be representative in any formal sense. A probability sample of reasonable size would, by contrast, allow for generalisation to a definable population with an estimated level of uncertainty.

(4p)

S3)

What is omitted variable bias, and under what circumstances will the omission of an independent variable affect your estimate of causal effects? Illustrate by the following example: civil unrest (dependent variable), unemployment, economic recession (independent variables).

Omitted variable bias refers to errors in statistical estimates due to the neglect/omission of an independent variable of relevance to the causal model. Omission will affect estimates of causal effects if the omitted variable correlates with both the independent variable(s) and the outcome.

In the example this could play out as follows: The researcher assumes that a rise in unemployment increases the risk of civil unrest. She has not considered economic recession in her model. Recession may precede both the other variables and affect both directly. The rise in unemployment may be largely due to the recession, and recession may affect the risk of civil unrest for other reasons than unemployment as well.

Given that both variables work in the same direction (more recession => more unemployment => more unrest; more recession => more unrest), your estimated effect of unemployment is likely to be overestimated. Hence, unemployment is seen to have a stronger effect on unrest than it in fact has. If an omitted causal variable was found to reduce unemployment while increasing unrest, the calculated effect of unemployment would normally be underestimated.

(5p)

S4)

According to Holstein and Gubrium, “all interviews are active, despite attempts to regiment, standardise and neutralise the process”. Discuss what kind of approach to research interviews that this position represents, and what challenges it raises with regard to replicability.

Holstein and Gubrium suggest that the methods literature that seeks to harness the research interview as a stringent and standardised method of data collection violate some of its key characteristics. Interviews are by necessity affected by the researcher, by individual circumstances and by the trajectory that each interview may take. Rather than shying away from this in the false pursuit of a uniform ideal, researchers ought to embrace the unique opportunity to frame and fine-tune conversations to maximise the insights gained.

This approach takes a broadly constructivist point of departure, where interviewees are not containers of data to be tapped. Rather, the interview is seen to hold the potential to create knowledge that arises from the interview itself. The interaction that the interview allows for can be shaped and directed by an experienced researcher. This, rather than standardisation, ought to be the aim.

With regard to replicability, the position above raises obvious challenges. Insight in the data themselves can be ensured through transcription, and active citation can help trace where in the data that research findings are grounded. However, the interviews themselves have assumedly followed trajectories that were unique to each conversation; to what extent they would give similar results if conducted again (and by another researcher) may be difficult to assess.

(4p)

S5)

Account for quantitative content analysis and discourse analysis as analytical approaches to text, highlighting what distinguishes the one from the other.

Quantitative content analysis starts from the assumption that meaning in text can be observed, classified and quantified, suggesting a broadly positivist approach to textual data. Discourse analysis assumes that meaning can only be accessed by way of interpretation, and categories will often be developed through the dialogue between researcher and text. Theoretically, its inspiration is grounded in the hermeneutical method and in social constructivism.

Content analysis, moreover, relies upon previously established categories, typically in the form of either a code sheet / handbook (for manual coding) or advanced algorithms. The text (clearly defined and delineated) is what constitutes the data. Discourse analysis traces meaning in text, but is often just as concerned about the collectively held assumptions that enable the text and which are confirmed or challenged through it.

4p)

S6)

A researcher wants to analyse ethnic hostility in a small number of states but is struggling to develop a suitable empirical measure. Account for what inferential steps that the researcher must make to obtain valid “scores on indicators”. Then account for what is meant by the concept of measurement validity and identify one or two challenges that might arise when using the same indicators for measurement across different cases.

To obtain scores on indicators, the researcher must move from theory to something that is empirically measurable: This is the inferential step of operationalisation. According to Adcock & Collier, it involves moving from systematised concept to indicators. This will then help “tap the concept”, classify the cases etc. in the data collection. (Sometimes, if the theoretical concept is poorly specified, operationalisation must be preceded by conceptualisation to arrive at the systematised concept, but that is less of an issue here).

Measurement validity refers to the extent to which concepts are accurately measured as operationalised by the model – i.e. it concerns the inferential step from systematised concept to indicators. Conventionally, the following step, scoring cases on the selected indicators, is also included as relevant to measurement validity.

A common challenge when using the same indicators across different cases is that the same measure may not be equally valid in different contexts. In the present example, it is not obvious that the researcher could find a universally applicable classification scheme for ethnic hostility, whether it be related to severity, type, level or other criteria. Another problem which relates more to data availability and quality is that data from different contexts may have varying quality and may have been collected on the basis of different procedures.

(5p)

Long-answer question:

Suggested use of time for long-answer question is 2 hours (weight: 50% of exam).

L1)

In April 2019, the Algerian President Abdelaziz Bouteflika resigned following six weeks of mass demonstrations. The presidential election scheduled for July was cancelled, and a preliminary successor was appointed. Since then, protests have continued and show little sign of abating.

A political scientist specialising in the Arab World is asked to write an article concerning the civil unrest in Algeria. She wants to design her project as a case study and considers fieldwork and interviews as methods of data collection.

(NOTE: None of the questions below requires in-depth knowledge on politics in Algeria nor the present context of unrest)

- a) Define what is meant by grounded theory, and discuss how a research strategy inspired by grounded theory could be devised in the Algeria example.

The concept of grounded theory is sometimes used alongside that of “local research frontiers”. According to Charmaz, it implies «a set of inductive steps that lead the researcher from studying concrete realities to rendering a conceptual understanding of them». The researcher starts out with a preliminary understanding, but engages in a dialogue with the object of study reminiscent of the hermeneutic method. She seeks to move inductively from data to conceptual saturation and theoretical rendering, while eager to situate herself underway. Reflexive questions to raise underway could include: What are the presumptions guiding your research? What are the knowledge claims? Key to the process of data collection and analysis are interviews, preferably repeated in the course of the research process as the researcher’s hypotheses take sharper form. The aim is to arrive at interpretations that are shared between researcher and interviewee.

In Algeria, such an approach would fit well with fieldwork and interviews, e.g. conducted in urban sections of the population prevalent in the unrest. The researcher would be interested in the phenomenon in light of a conceptual literature on social movements, protest etc. but would be strongly attuned to the complexity and idiosyncratic features of Algeria. Moreover, she would seek to inquire actors’ understanding of themselves, the collective which they are part of and the activities they take part in. She could also be interested in interviewing people detached from the unrest itself to establish perspective on what could be a highly concentrated, urban phenomenon.

(6p)

One colleague who is presented with the idea suggests that, rather than grounded theory, the project ought to draw more explicitly on established schools of thought.

- b) Account for what Levy refers to as the theory-guided case study and the hypothesis-testing case study. Identify the key differences between the two types and what these would imply for the research project in Algeria.

The theory-guided case study applies theory as a theoretical lens to address an empirical research question, whereas the hypothesis-testing case study sets out to test a theory of more or less general remit on a selected case. The primary purpose of a theory-guided case study is to structure the analysis; to navigate through a wide array of potentially interesting information to establish an analysis of academic value. This is very often what a research report would aim to do. A hypothesis-testing case study is less concerned about the case than theory; the primary purpose is to test whether a theory holds sway. Here, the choice of case is an obvious discussion point.

In Algeria, the researcher could lean upon insights from (as mentioned) social movement theory or from the large literature on the Arab Spring to structure her data collection and analysis. This would provide guidance as to what is relevant to look for (or, more specifically, to ask about interviews). Such an approach would be relevant whether the research question be causal (e.g. what elements caused or aggravated the unrest?) or descriptive (e.g. what representations of nation, people and collectivity in general came to the fore in the unrest?). However, she could also use Algeria as a case to test a theory about, say, escalation of social conflict or the role of youth in urban unrest in the Arab world. If so, it would be of quintessential importance what role should be accorded to the Algeria as a case of...a broader population.

(6p)

Another colleague argues that any theory should make a causal proposition, and that this ambition should also guide the fieldwork.

- c) Discuss in brief what process tracing would entail in the present example and what kind of evidence the researcher would be looking for.

Process tracing, according to George & Bennett, implies “a procedure for identifying steps in a causal process leading to the outcome of a given dependent variable of a particular case in a particular historical context”. Mahoney’s article on the syllabus follows in the same vein. Often, process tracing would seek to assess which theory can best account for an outcome that is causally overdetermined (superficially explained well by several theories). Process tracing may also be applied to enrich a literature that depicts a relationship between variables across a sample without full understanding of the “how” and “why” of that relationship.

In the present example, the researcher would need a causal research question to address through process tracing. The researcher could for example ask whether the desire for democracy or economic aggravation has been the prime motivation beyond the unrest or, drawing on a typology of rebellions, assess how Algeria could best be classified. Preferably, process tracing should direct attention not only to “how we got here”, but also to key steps or changes that helped bring about the outcome. Algeria could, for example, be studied in light of rival theories of escalation, or the researcher could hone in on the internal socialization in a social movement, dialogue with the regime etc. Either way, the researcher will be looking for data that typically do not fit well into standard matrixes. Rather, “diagnostic evidence” would be of particular value, in the form of “causal process observations that can demonstrate certain mechanisms to be in play and thus validate the theoretical proposition.

(6p)

Yet another colleague suggests that the project takes one step back and looks at Algeria in light of civil unrest and anti-authoritarian movements in the Arab World. Notably, there was no extensive unrest in Algeria in 2011 unlike several adjacent countries.

- d) What is the most similar systems design (MSSD), and how might it help structure the analysis? Explain, then identify at least one methodological problem that might arise from relying strongly on MSSD to identify the relevant causes of unrest in Algeria.

MSSD implies selecting cases that have a similar score on as many relevant independent variables as possible, yet differ on the outcome that we seek to explain (the dependent variable). The design follows the simple logic derived from John Stuart Mill that similarity cannot explain difference and vice versa. Only independent variables where the cases differ are seen to have explanatory value to the outcome (where the cases also differ).

As a basis for case selection, MSSD mainly offers a “tidying up” exercise in setting aside cases that might be particularly useful for addressing a general causal relationship. The ambition would be to minimise the number of relevant causal variables that the researcher could then hone into. For example, why would two neighbouring Arab countries, roughly similar in size and population, regime type, role of military etc. follow separate trajectories in response to calls for democratisation?

One methodological problem arising from a simple adherence to MSSD would be that we take the assumption of a “general” set of causes literally. In the present example, what if there are numerous trajectories of civil unrest across the Arab World in relation to the Arab Spring? What if it makes little sense to look for general causes on the premise of comparability? OR what if variables interact in complex ways, meaning that clearly distinctive explanatory variables conceal? A related problem would be the crude, often dichotomous measurement of key variables that MSSD suggests and which may confuse as much as they reveal. In the present example, for example, would it make sense to simply define the regime as similar to a neighbouring country without addressing the complex, historical and contextual embeddedness of each of the countries in the region?

(6p)