

Political Science 104

Lecture 3: Hypothesis Formation

Hypothesis Formation

- Where do hypotheses/research questions come from?
- What makes for a good hypothesis?
- How do we create a good hypothesis?

Deduction versus Induction

- The deductive approach moves from the general to the specific. We start with a general theory, form a hypothesis, and test it.
- The inductive approach moves from the specific to the general. We observe some empirical regularity, form a theory about it, and then test hypotheses related to that theory.

One Source of Research Questions: Formal Theory

- Prisoner's Dilemma game:

	Prisoner B Stays Silent	Prisoner B Betrays A
Prisoner A Stays Silent	Both serve 6 months.	B goes free. A gets 10 yrs.
Prisoner A Betrays B	A goes free. B gets 10 yrs.	Both serve 2 years. <i>(Nash equilibrium)</i>

More Inductive Approaches

- While presenting paper on the relationship between public opinion and party platforms in Europe, someone pointed out the French Communists don't seem to care about public opinion, which led to a new paper on "niche parties."
- Voter turnout in US elections declined steadily from 1960 until 1998. It has been increasing from 2000 until now, and 2008 looks to be higher still. Why?

Literature Reviews

- Literature reviews are easy with online paper archives such as JSTOR, others listed in JR&M Ch. 6.
- Papers scanned as PDF files, searchable with keywords.
- Use to be sure you're not "reinventing the wheel," search for papers related to your hypothesis, discover gaps in the literature you can fill.

Political Science Journals

- American Political Science Review (APSR).
- American Journal of Political Science (AJPS).
- Journal of Politics (JOP).
- These are the top 3 general journals in political science (covering all subfields).
- There are other journals that specialize in specific subfields (AP, CP, IR, PT, methods).

Picking hypotheses out of abstracts: Example 1

While democratization is often seen as a national-level process, we argue that there is important scope for local effects. Through analysis of Mexican public opinion data collected on the eve of that country's historic 2000 elections, we demonstrate that local context greatly affects evaluations of the legitimacy of the system, and these evaluations, in turn, help to shape the willingness of citizens to engage with the system. Citizens are more willing to participate in politics if they think the process is fair, and direct evidence of the fairness of the system is provided by the local political context. This local connection, then, becomes critical in the process of individuals becoming, in Almond and Verba's classic term, "participatory citizens" (1963).

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Local political context → political participation
(belief that system is fair is an intervening variable)

Picking hypotheses out of abstracts: Example 2

Huntington's (1993a, 1993b, 1996) clash of civilizations thesis suggests that states belonging to different civilizations are more likely to become involved in conflict with one another. To evaluate the empirical accuracy of Huntington's claims, we examined the relationship between civilization membership and interstate war between 1816 and 1992. We find that civilization membership was not significantly associated with the onset of interstate war during the Cold War era (1946-1988), which is consistent with one aspect of Huntington's thesis; however, we also find that for the pre-Cold War period (1816-1945) states of similar civilizations were more likely to fight each other than were those of different civilizations, which contradicts Huntington's thesis. Most importantly, our analysis reveals that during the post-Cold War era (1989-1992), the period in which Huntington contends that the clash of civilizations should be most apparent, civilization membership was not significantly associated with the probability of interstate war.

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Civilization membership → war
(arguing no relationship)

Forming good hypotheses: Our working example:

"Countries with IMF loans are more likely to experience political instability than countries without IMF loans."

Does this meet the criteria of a good hypothesis?

Characteristics of a good hypothesis

- In declarative form
- About an expected relationship
- Guided by theory and/or past work
- Brief and direct
- Testable
- Empirical
- General without being ambiguous
- Plausible
- Falsifiable

Hypotheses should be general: A statement about how the world works, not about a specific case

Too Narrow:

- “The United States has more murders than other countries because so many people own guns.”

General:

- “Countries with more guns per capita will experience more murders per capita than countries with fewer guns.”

Hypotheses should be specific: The expected relationship is clearly stated

Too Ambiguous:

- “A country’s geographic location influences the type of political system it has.”

Specific:

- “The more borders a country shares with other countries, the more likely it is to be non-democratic.”

Steps to creating a good hypothesis:

- *Pose an interesting research question.*
- *Propose an explanation.* What are the dependent and independent variables? What is the causal mechanism?
- *State your explanation as a hypothesis.*
- *Define your concepts.* What do you mean by “democracy” or “educated”? Tell us exactly what we should see if your hypothesis is correct.

Defining concepts:

Poorly defined:

- “Rich countries tend to be democracies.”

Well defined:

- “As per capita GDP increases, the likelihood of a country having an effective political opposition increases.”