

# Research Methods in the Study of Europe and Germany (54699)

Lesson 4

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#### Structure of the Class

- 1. Writing Research Questions
- 2. From Research Questions to Hypotheses



#### The Scientific Process

- Developing an idea for research <u>PUZZLE</u>
- Elaborate a question to answer RESEARCH QUESTION
- Consolidate expected responses <u>HYPOTHESES</u>
- Design research & define strategy METHODOLOGY
- <u>DATA COLLECTION & ANALYSIS</u> are findings consistent with hypothesis?
- **CONCLUSIONS** Change and expansion? Is it possible to confirm the hypothesis? Make changes? Further research?



## Writing Research Questions



### **Writing Research Questions**

- Most of the questions seek **causality** (why, how, what is the effect of x on y...).
- Sometimes descriptive-factual questions are also asked (what, how much...), yet this is mostly used as a basis for causal questions.
- In other cases, a descriptive-factual study is carried out because it is data that is difficult to collect, or there is a dispute about the way to measure it.
- In this case, the study will show how another measurement method is meaningful for understanding the phenomenon.

#### IV and DV

- From theories, **predictions** emerge, which can be verified or refuted.
- Theories are based on **causality** (IV affects DV).
- Research questions thus focus on the <u>relationship</u>
  <u>between variables</u> (what is the effect of x on y?)
- This opens the possibility that there are several potential answers (**hypotheses**).



## **Examples of Research Questions**

• What is the effect of joining international conventions on the behavior of countries in the field of human rights?

• What is the effect of economic development on the level of democracy?

• What is the effect of negative publications about candidates on voters?

What is the effect of interest groups on government activity?



## **Examples of Research Questions**

What do you think about this research question?

- Should Israel adopt rules regarding the term limit of the Prime *Minister?* 

- Why did the Oslo agreement fail?



### **Research Questions to Avoid:**

• RQ that can be answered in one sentence or with a simple and easy-to-obtain fact (for example, what is the voting rate in Israel?)

• **RQ with** specificity to an individual or single case (why the US invaded Iraq?). we usually try to find broad patterns (why countries initiate wars) - even if we check them in the end on one case.

• **RQ** that can be answered by one correct answer - usually there are several answers that seem logical at first - and the purpose of our research is to see what the evidence supports (ex. how economic development affects the quality of the environment?).



#### How to Develop a STRONG Research Question | Scribbr 🎓



How To Write A Research Question: Full Explainer With Clear **Examples** (Grad Coach)

**Developing Good Research Questions** 



# From Research Questions to the Hypotheses



## From Research Questions to Hypotheses

• From theories, **predictions** emerge, which can be verified or refuted (*hypotheses*).

Hypotheses thus explain how/why IV affect DV.

- <u>Hypothesis:</u> A statement that reflects the relationship between variables (in the researcher's opinion).
- This is only a proposed connection:
  - There might be several potential answers.
  - the evidence may not support the hypothesis and it will be falsified.



## Hypotheses and Research Types

• **Explanatory research** is designed to explain phenomena - to examine whether a phenomenon causes/affects another one.

 However, often researchers do not have much idea in advance about the relationships between variables, so they learn about the phenomenon, and looking for connections - Exploratory research.

• Usually, researchers have some hypothesis that they are trying to test - *Confirmatory research*.



## **Testing Hypotheses**



## Establishing a causal hypothesis

- 1. Is there a relationship between the variables? The relationship can be direct or inverse, linear or not but to establish causality you need a relationship first.
- **2. Is this a real relationship or a fake relationship?** (have I ruled out, as far as possible, <u>alternative explanations?)</u>
- 3. Does the independent variable (A) precede the dependent variable (B) in time? Is there a convincing "causal mechanism" linking the two variables?

There are those who believe that conditions 1-3 are sufficient for the basis of causality.

#### **Next Class**

- Lesson 5)
- 1. Testing Hypotheses (Assignment)
- 2. Causal Mechanisms
- 3. Research Design
- 4. Methodology



## Thanks!

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