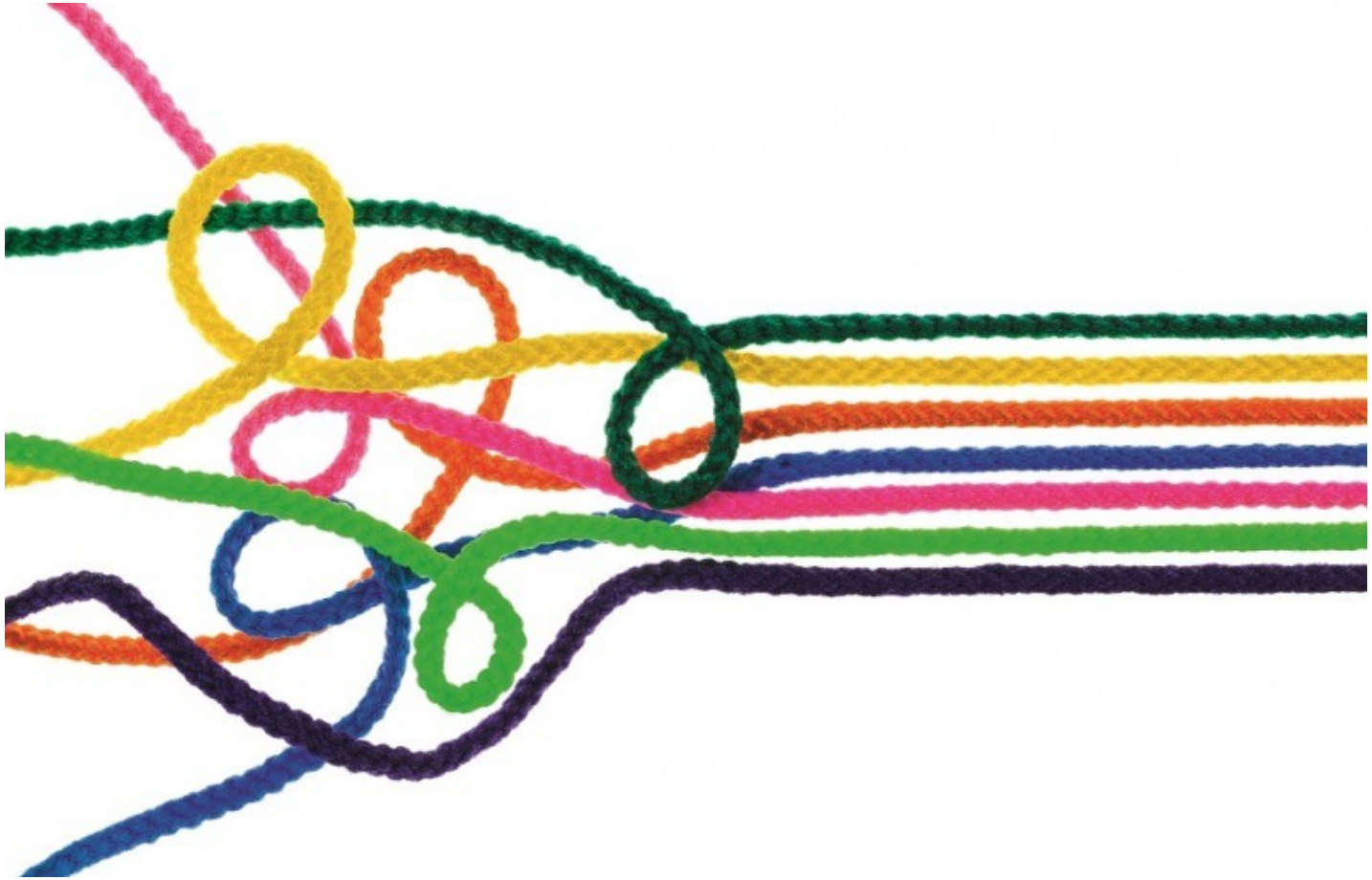
Research Basics and Research Design I

Methodology of Conflict and Democracy Studies

Aim of this lecture

- Introduction to research and methodology
- How to do research?
- What is a good research?
- Basic concepts that you need to know

Order VS Chaos



Where to begin?

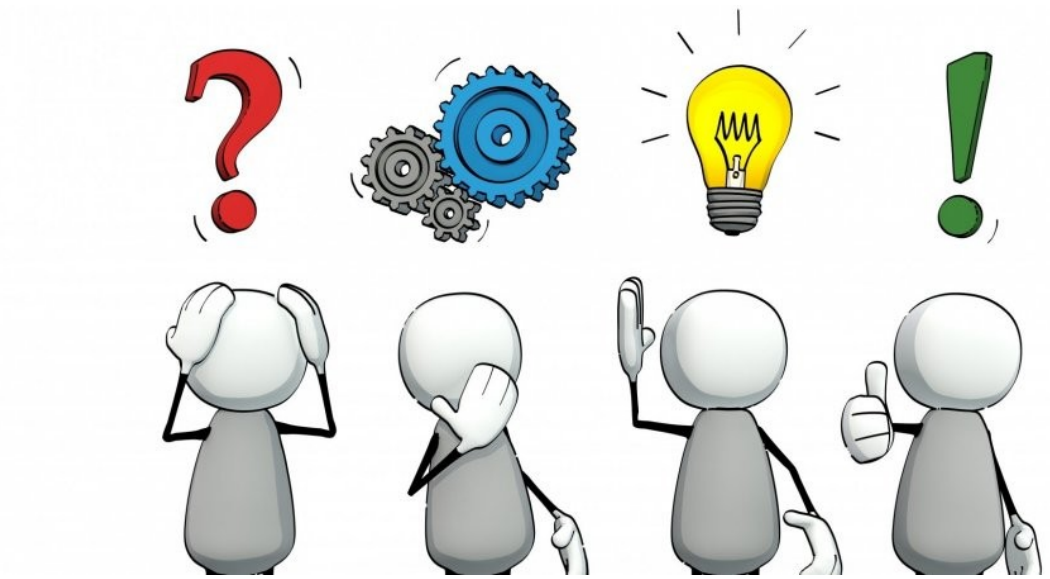
- Identification of the topic?
- Asking questions?
- Formulation of hypotheses?
- Data availability check?
- Calculation of costs?

Step by Step

1. Topic and goals *(+ reading)*
2. Research questions *(+ reading)*
3. Hypotheses *(+ reading)*
4. Methods *(+ reading)*
5. Data collection
6. Data analysis
7. Results

Topic and Inspiration

- College courses
- Extracurricular activities
- Your future career
- Discussions with others
- Reading



Research Questions

- RQ give focus, set boundaries and provide direction
- Only relevant RQ required
- What / How / Why:
  - What – description, characteristics of social phenomena
  - Why – causes and reasons
  - How – explanation, change
- RQ point to data, i.e., RQ affect the data collection and analysis

Research Questions

- Well formulated questions help the research and vice versa
- Empirical criterion:
  - What data we need to answer the question?
- If RQ do not lead to certain data, there is no way to answer the questions

Research Questions

- Beware of normative RQ

- *Is it correct to apply gender quota?*
- *Was the election of E. Macron a good decision of French citizens?*

- Normative RQ cannot be answered using empirical data

- Solution – modification of RQ (this changes also their content)

- *Do French citizens think that electing E. Macron for president was a good decision?*

Hypotheses

- Do we need them?

- Do we ***always*** need them?

Does more transparency of institutions lead to higher satisfaction of citizens with democracy?

More transparency of institutions leads to higher satisfaction of citizens with democracy.

Does the amount of sugar affect the willingness of people to drink tea?

The amount of sugar affects the willingness of people to drink tea.

Hypotheses

- *Logical conjecture about the nature of relationships between two or more variables expressed in the form of a testable statement* (O'Leary 2004)
- Hypotheses are derived from theory

- Main elements:
  - Testability
  - Relationship between at least two variables
  - Expectation backed by the literature

- *'Increasing unemployment rate leads to higher local support of far right parties.'*
- *'Terrorist attacks with victims increase the fear of society to a higher extent than terrorist attacks without victims.'*

Hypotheses

- Not a necessary part of any research
- Hypotheses are used for testing theories
- Key questions:
  - Does the theory suggest a relationship between variables?
  - Does it suggest the direction of such relationship?
- Placing hypotheses **before** the theory is senseless

Logic of Research

- Two main ways – inductive and deductive

- Inductive:
  - Explorative, search for patterns
  - Main aim is generalization and formulation of new theories

- Deductive:
  - Builds on previous knowledge
  - Main aim is to test existing theories

Logic of Research

Inductive	Deductive
Observation, data collection	Theory → hypotheses
Search for patterns	Test of hypotheses
Generalization, new theories	Confirmation / rejection of theories

Theory

- A set of statements that collectively describe and explain a phenomenon, its causes or consequences
- These statements are at a higher level of abstraction than simple facts
- Objective - not only to describe but also to explain
- Explanation based on '**if A then B'** logic
- *Theory is nothing more than a set of causal laws and hypotheses* (Van Evera)

Variables

- A way to store concepts from the social reality

- Elements of each variable:
  - Label – name / description
  - Values – denominations of occurrence of the variable

- Example – a variable concerning income:
  - Label – ‘income’
  - Values – expression in a certain currency (EUR, USD, GBP etc.)

Variables

- Main role of research – identify and explain causal relationships between variables

- We distinguish between:
  - Independent (explanatory) variables – suggested cause
  - Dependent (outcome) variables – suggested consequence

- *Higher inflation decreases probability of government to win election*
  - Identify the variables
  - Which one is independent, and which one is dependent?

[redacted] is the reelection of incumbents. It takes a value of one if the incumbent is reelected and zero otherwise. Another possibility would be to calculate the vote shares of incumbents, but I opted for a binary reelection indicator instead. In FPTP systems, it is the victory that counts, while the winner's actual vote share is less relevant. A solid winning margin might be important, but unless the candidate wins, all their votes are wasted, and they lead to no seat. Conversely, victory can be achieved with even a modest number of votes, provided that no rivals score better (Mitchell 2005). The FPTP system also allows incumbents to add to their previous vote shares and still fail to be reelected.

[redacted] include the number of grants and the timing of grant distributions. The former is coded as an interval variable and it captures the number of grants the municipality received throughout the mayor's term. For the variable capturing timing, it is crucial to define the pre-electoral period. Researchers commonly work with the year of the election or a 12-month window preceding Election Day, provided it occurs early in the calendar year (Mandon and Cazals 2019; Philips 2016). Given that mayoral elec-

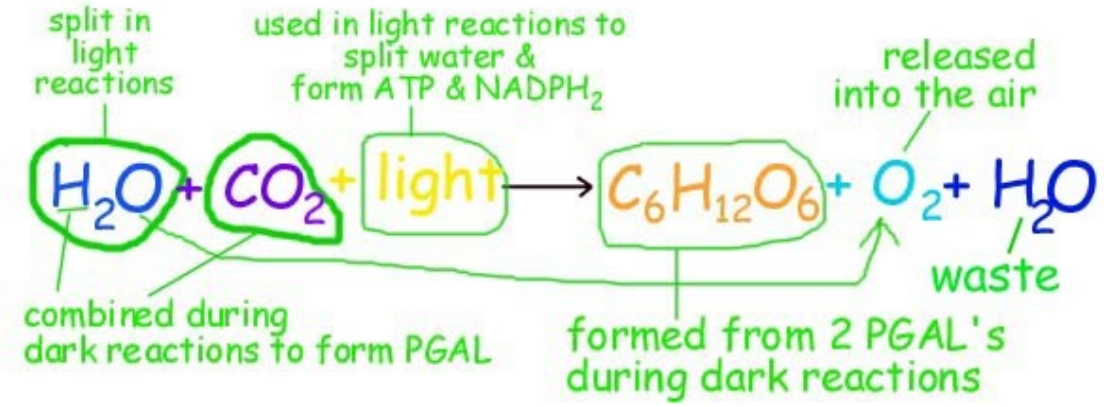
Causality

- Basically, what this course is all about

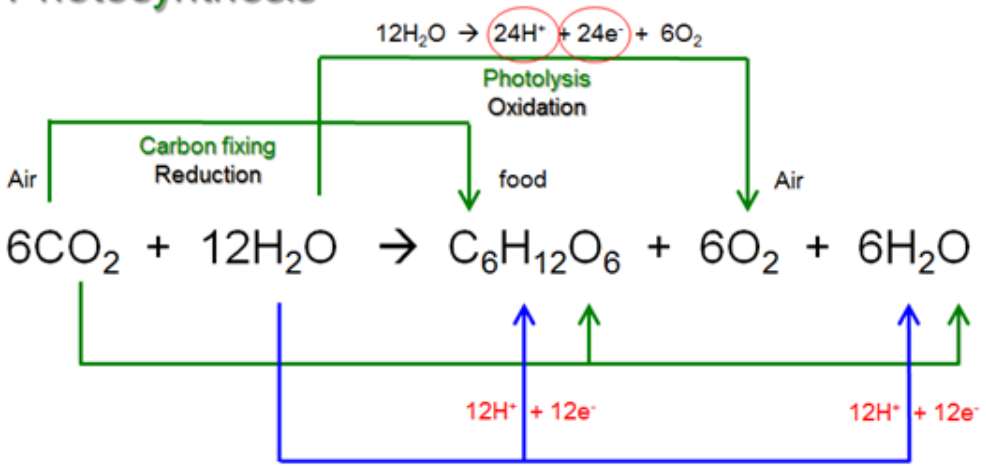
- Causal effect:
  - Change in the value of a dependent variable if the value of an independent variable changes

- Causal mechanism:
  - Explanation of the link between cause and effect
  - Clarifies the nature of the relationship between independent and dependent variables


Havana
Cancún
Belize City
7.6
San Pedro Sula
San Salvador



Photosynthesis



- Hypothesis 1: *'More life experience leads to a better career.'*

- What is *'life experience'*?
- What is a *'better career'*?

- Hypothesis 2: *'Higher GDP allows countries to follow more ambitious national interests'*

- What are *'national interests'*?

Operationalization

- Transformation of concepts into measurable items
- By operationalizing we define measurement of social phenomena that is hardly (or not at all) measurable directly
- Europeanization, good character, tasty food, wonderful color, right-wing extremist

Compare these definitions

1. **A nice person** – a person who is kind and caring and who everyone likes

2. **A nice person** – a person who smiles at least ten times a day and when other people are asked how they like him/her, this person receives a mean value of at least 8 on a 0-10 scale

- Which of these two helps you more to identify a nice person in the real world?

Operationalization

- Terrorist group
- Electoral success
- Tasty food
- Popularity
- Successful exam
- Educated person

Be a Researcher

- Topic: *Popularity of Stranger Things in contemporary art industry.*

- Find some research questions
- Formulate hypotheses (we assume that we have a theory)
- Operationalize

Be a Researcher

- Topic: *Occurrence of violence in Europe due to high inflation.*

- Find some research questions
- Formulate hypotheses (we assume that we have a theory)
- Operationalize

Some Good Rules to Follow

1. Well set goals (and the topic) spare you time and energy

2. Methods are not your goals, but only the tools to achieve your aims

3. Proper reading is a must

4. Research design and planning is essential