

Puzzles, Research Questions Theory and Hypotheses

Political Analysis
Oxford Q-step Centre
Hilary Term 2015

Political Analysis: a snapshot

Lectures by week:

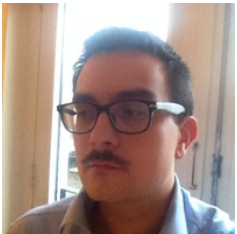
1. Theory, puzzle and hypotheses (AR)
2. The design (AE)
3. Case selection (CdV)
4. Measurement (AR)
5. Summarizing information (AR)
6. Bivariate relationships (AE)
7. Multivariate relationships (AE)
8. Introduction to inference (AE)

Data labs by week:

2. Intro to data analysis in R
4. Further data analysis skills
6. Analyzing bivariate relationships in data
8. Regression analysis

For the time & location of lab sessions, see email from PPE office.

Lecturers:



Andrea
Ruggeri



Catherine
de Vries



Andrew
Eggers

Assessment: 2000-word essay (on one of three questions related to Lijphart's claims about effects of consensus democracy) to be submitted by 12 noon Monday 4 May 2015

Our aim

Improve your ability to assess **evidence** on empirical questions.

For example:

- Is social media good for the spread of democracy?
- Does first-past-the-post discourage political engagement compared to other electoral systems?
- Do majority-Islamic countries have worse human rights records, controlling for wealth and other factors?
- Which employment programs work best?
- Does satellite technology help avoid interstate wars?



Esther Duflo

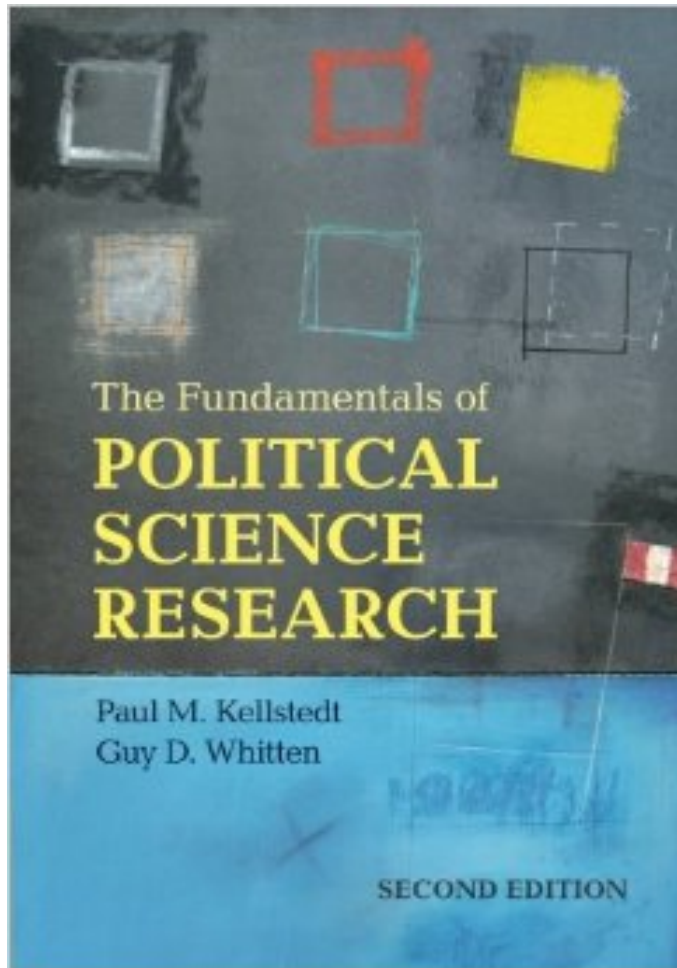
Scientist/analyst vs lawyer/advocate

Producing data analysis vs consuming data analysis

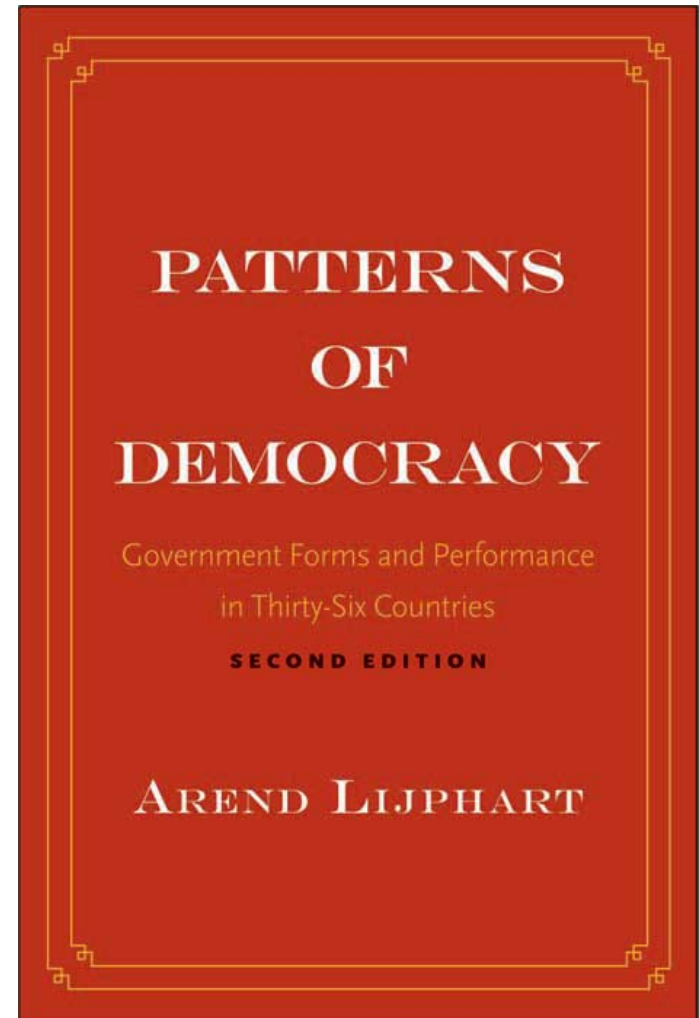


A British politician

Books in the course



Main ideas about research design



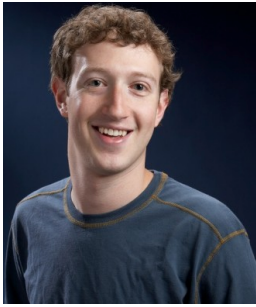
Thematic context in which to apply those ideas

What is “political” about “Political Analysis”?

We will emphasize political examples.

But skills and concepts are **widely applicable**:

- any social science (economics, sociology, epidemiology, etc), history (especially quantitative)
- philosophy of (social) science
- program evaluation in NGO work, policymaking, regulation
- marketing, product design, political campaigns
- advocacy & litigation
- anywhere data analysis is possible



“Must I learn to program?!?”

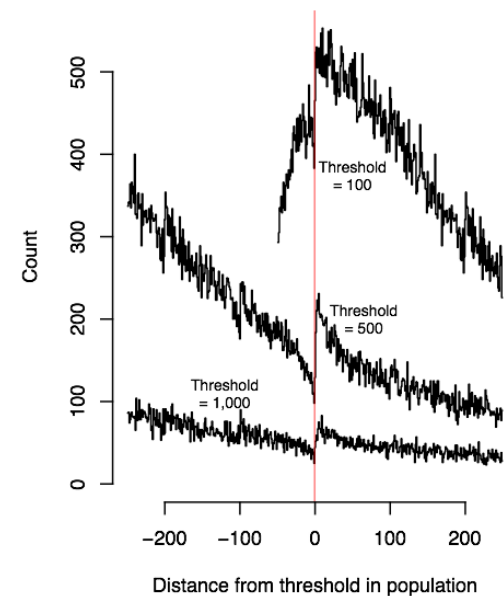
Programming in R could be the most useful thing you learn here.

- Do statistical analysis with any dataset!
- Make beautiful infographics!
- Scrape data from the web!

If you want to get started on your own, download RStudio and find a good tutorial. (Suggestions on course website.)



France: Smaller thresholds (bin width = 1)



Cookin'



Why is there so much variation?

Seafood Risotto & Political Analysis

Problem/Puzzle → Seafood Risotto

Problem Definition → Risotto for 4 people

Problem Components → Rice, seafood, onion, butter , white wine...

Data Review → What can I learn from previous experiences of eating risotto?

Creativity/Theory → How do I address my puzzle?

Data Gathering → What products do I need?

{Today}

Materials → What rice and why? What other products and from where?

Materials Experiments → tasting the different products

Models → cooking all together in certain quantities and order

Checks → it is good? I can serve it

Solution → a successful dinner with Seafood Risotto

Adaptation from: Bruno Munari, "Da cosa nasce cosa", 1981

Lecture in a nutshell



Puzzles/problems trigger research questions

→ we answer them with **theories**

→ these lead to **observable** implications

→ that we state with **hypotheses**

1. puzzles

On puzzles : what are puzzles?

Wars 1816-1991

Type	Count
Democracy Against Democracy	= 0
Democracy Against Non-Democracy	=155
Non-Democracy against Non-Democracy	=198



- What is a puzzle?

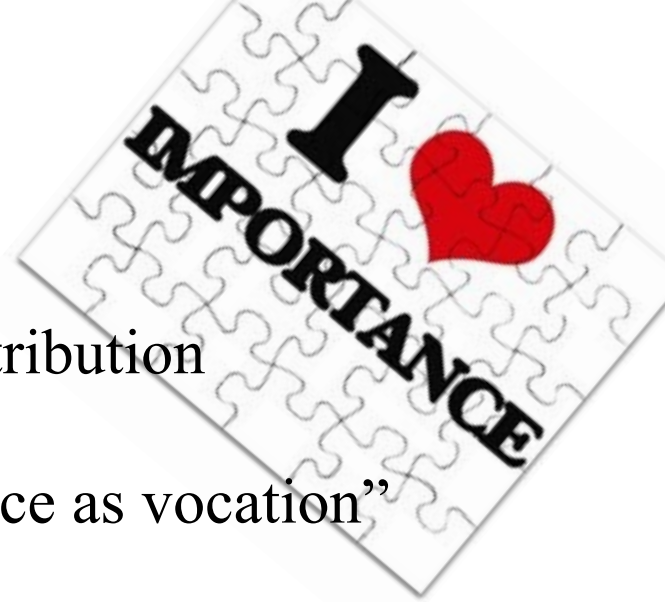
Something Unexpected and Explained

→ Hence puzzles have Empirical and Theoretical components

Clash Between Theories

Clash Between Empirics

Clash Between Theory and Empirics

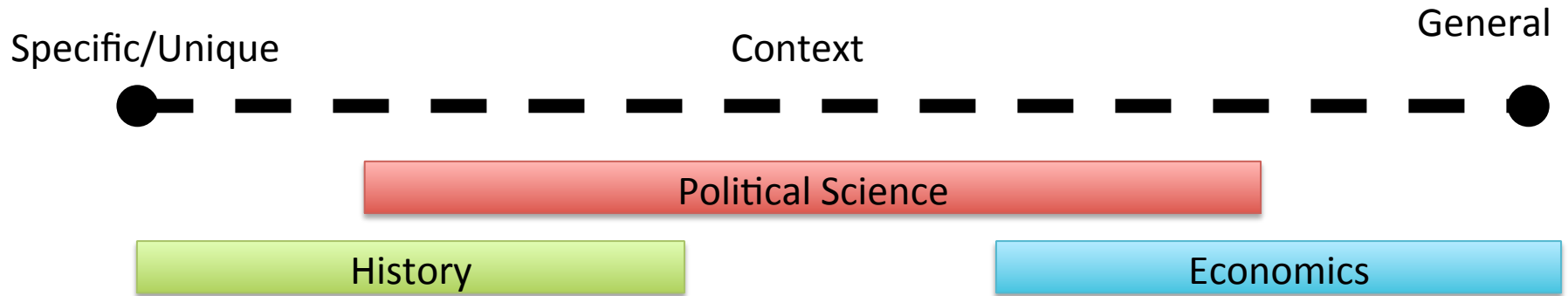


- ✓ Puzzles are indeed about relevance and contribution
- ✓ As Barbara Geddes , echoing Weber, “science as vocation”
- ✓ Puzzles crucial because stimulate interest, indignation and irritation.
- ✓ Normative push is crucial, scientific effort is fundamental
- ✓ Good social science is about getting annoyed and providing a valid and robust way to address these puzzles and issues

2. Research Questions

*Posing & Answering Questions
Specific VS General*

Continuum



“Know Local , Think Global: Can you Drop the Proper Nouns”?

Kellstedt and Whitten 2013:31



Puzzle, ideas, intuitions may be from a single country or event. But then we should aim to extend to more general pattern and broader theoretical aspect.

Puzzles and Asking Questions

Why is it hard to predict revolutions?

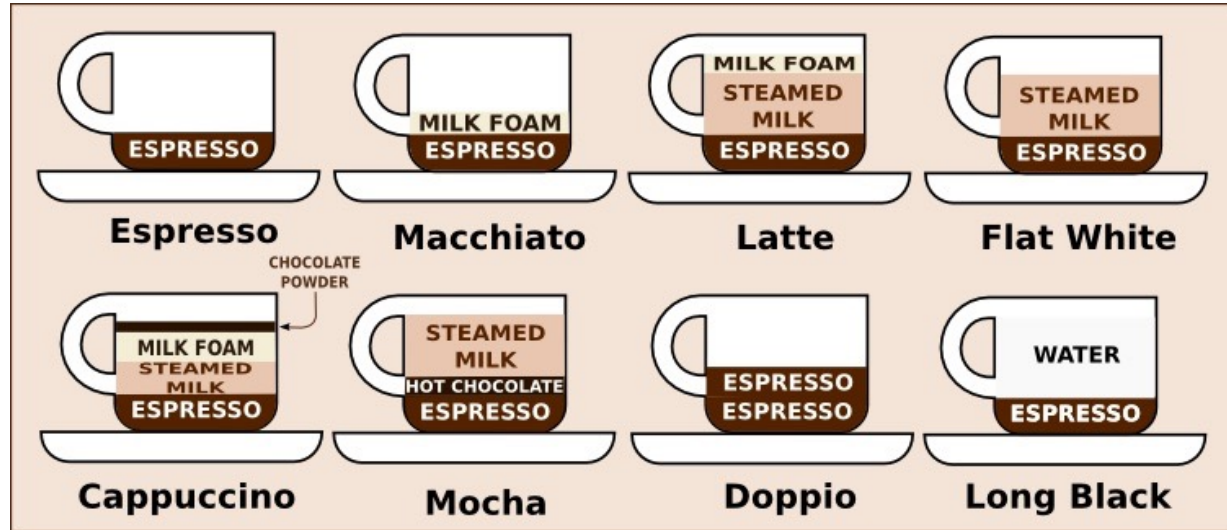
Why do wars occur despite their high cost?

How do dictators stay in power so long?

Why do we vote?

What Kind of Research Question

Example: coffee ... wealth and democracy



Descriptive : Are democracies richer?

Explanatory : Why are democracies richer?

Causal : How rich do you need to be to stay democratic?

3. theory

Once Upon a Time...



...In that Empire, the Art of Cartography attained such Perfection that the map of a single Province occupied the entirety of a City, and the map of the Empire, the entirety of a Province.

In time, those Unconscionable Maps no longer satisfied, and the Cartographers Guilds struck a Map of the Empire whose size was that of the Empire, and which coincided point for point with it.

The following Generations, who were not so fond of the Study of Cartography as their Forebears had been, saw that that vast Map was Useless, and not without some Pitilessness was it, that they delivered it up to the Inclemencies of Sun and Winters.

In the Deserts of the West, still today, there are Tattered Ruins of that Map, inhabited by Animals and Beggars; in all the Land there is no other Relic of the Disciplines of Geography.

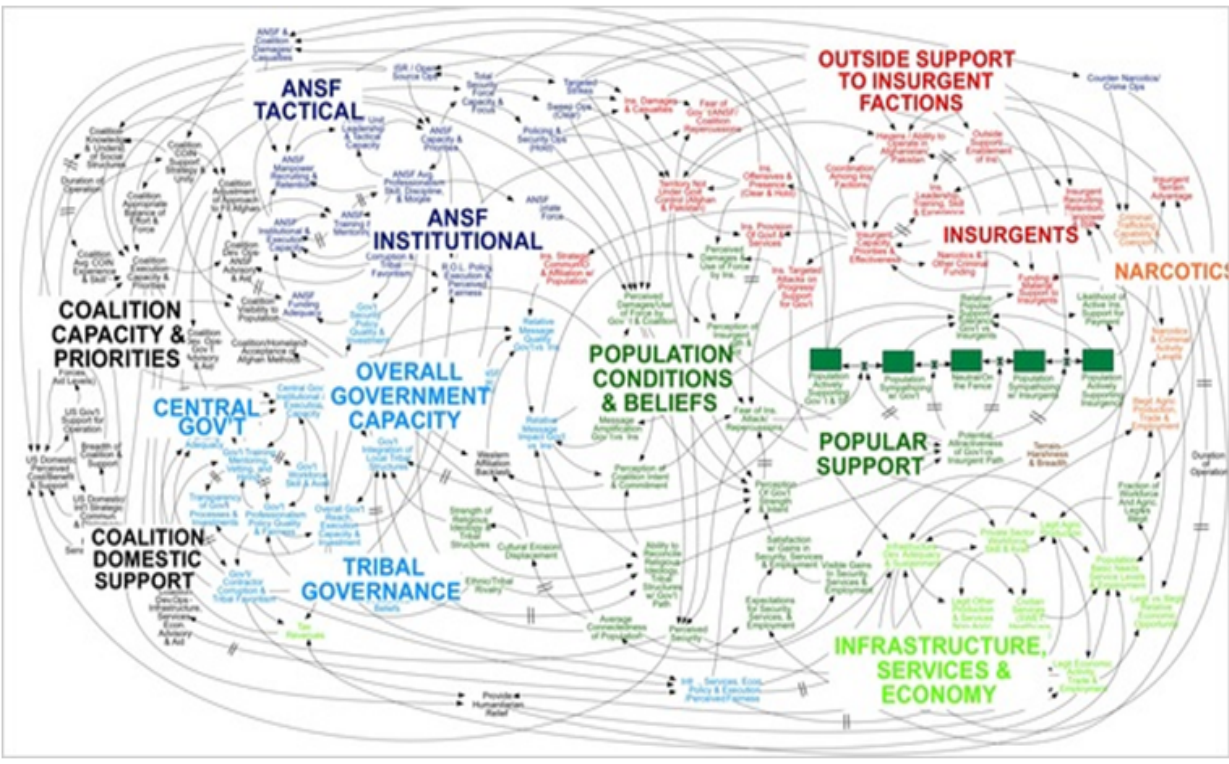
Jorge Luis Borges

Theories as Maps

London Tube

It does not represent reality but it delivers what you need:

Simple, Functional, Explains



US Military Mindmap of Afghanistan

Close to reality, but it was not helpful:
Too Complex, Very Descriptive

Theory

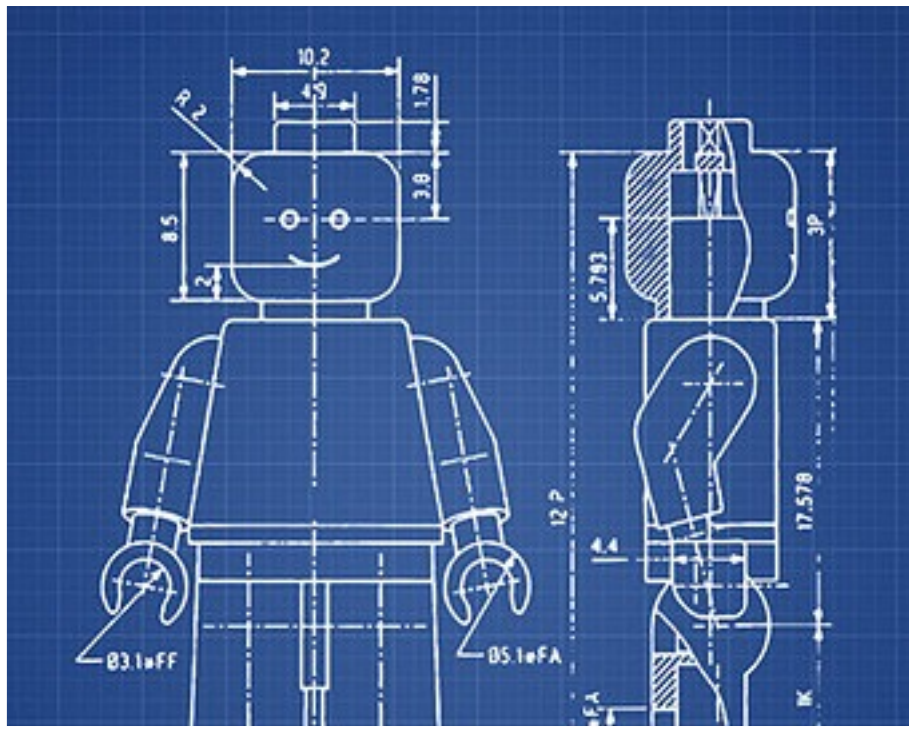
A theory is a tentative conjecture about the cause of some phenomenon of interest.

Logical statement based on **assumptions** that **explain** a **causal mechanism** from which we can derive **observable hypotheses** and therefore **expectations**.



Theory represents and aims to explain social reality , it is **NOT** the social reality.

Art of Theory Building



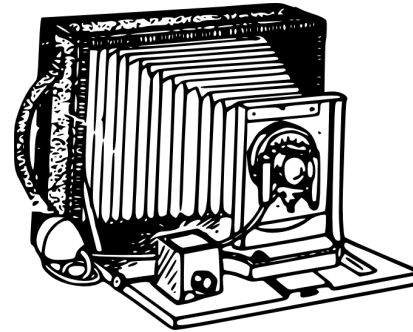
- 1) Does your theory offer an answer to an interesting research question?
- 2) Is your theory causal? (do you have an explanation?)
- 3) Can you test your theory on data that you have not yet observed?
- 4) How general is your theory?
- 5) How parsimonious is your theory?
- 6) How new is your theory?
- 7) How non-obvious is your theory'?

Descriptive and Explanatory

Continental – Descriptive



Statistical
Description



Statistical Inference /
Explanation



4. hypotheses

X & Y

Thinking about the World in Terms of Variables and Explanation →

Observable Implications

What we want to explain we label **Dependent Variable**: → Y

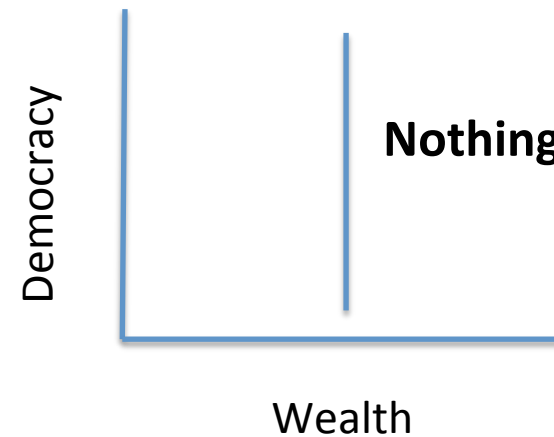
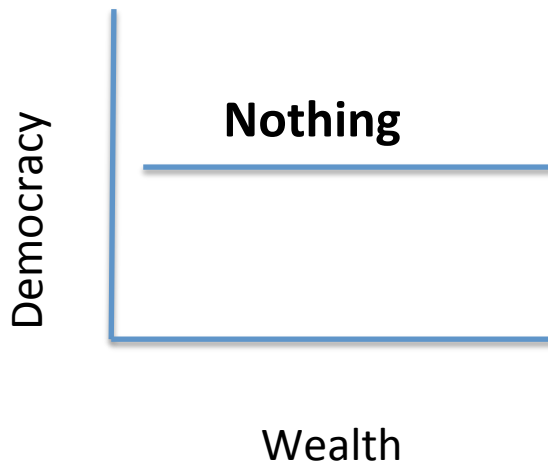
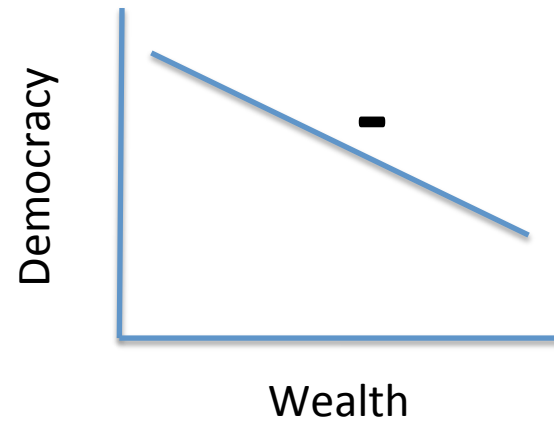
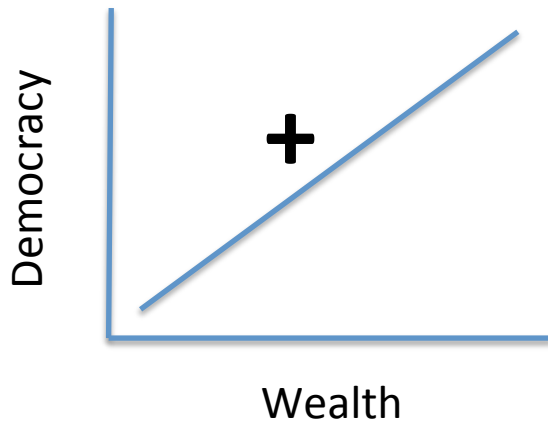
What we will focus as explanation we label as **Independent Variable** → X

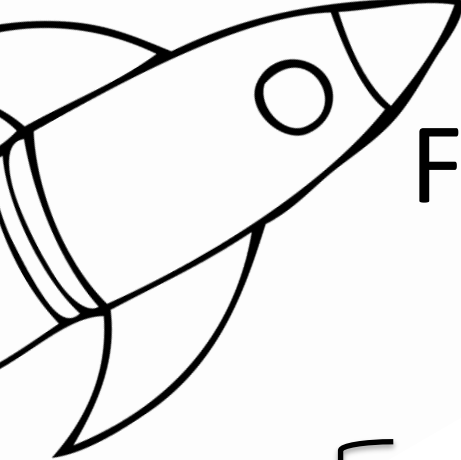
If we see X then Y?

+? -? Nothing?

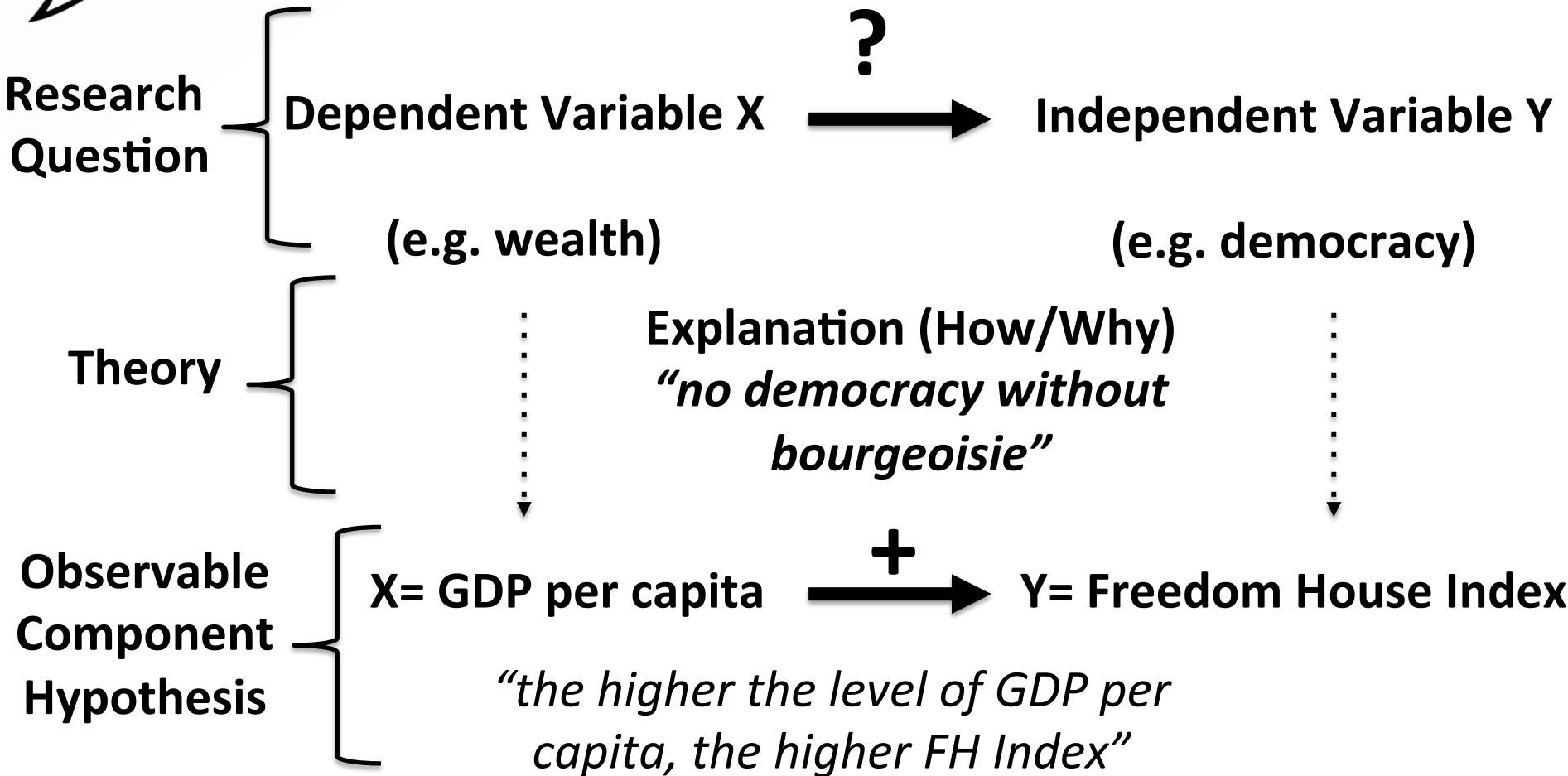


What should we observe ? X & Y (e.g. Wealth & Democracy)



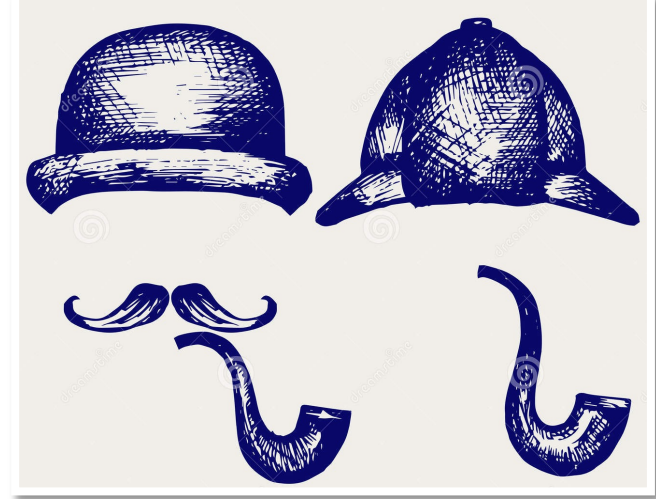


From theory to hypotheses



Hypotheses

- if X then Y
- Y because X



Explicit → direction and/or effect magnitude

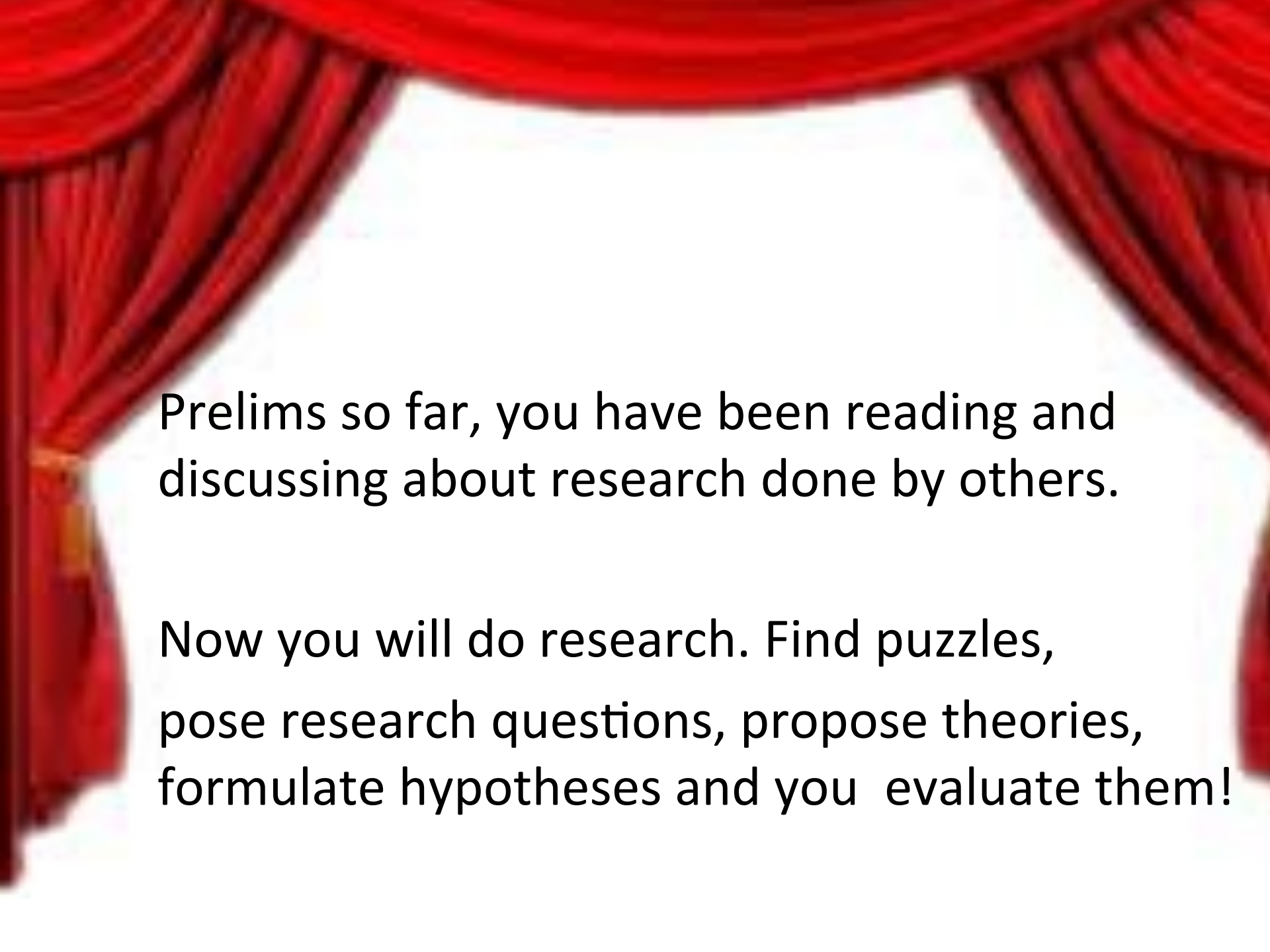
Measurable → operationalization / observation

Falsifiable → against your hypothesis not in favor

Think about Null Hypothesis (Scientist vs Advocate)

- A scientific approach is based on a design that works **AGAINST** your hypotheses not in favor.

5. concluding

A pair of red, textured curtains are pulled back to reveal a plain white background. The curtains are draped and have a slight sheen. The text is centered on the white background.

Prelims so far, you have been reading and discussing about research done by others.

Now you will do research. Find puzzles, pose research questions, propose theories, formulate hypotheses and you evaluate them!

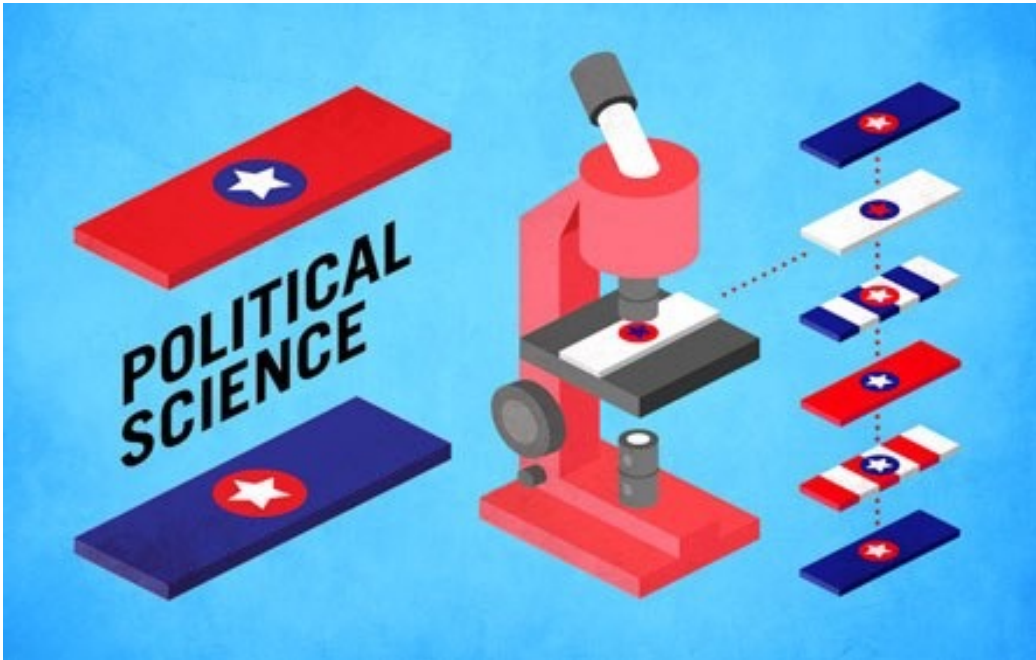
Debugging two Possible Misunderstandings

Scientific as without norms/ideas → NO

Scientific as Just Quantitative → NO

"Ideological coexistence is possible within the frame of peace research. This also applies to methodological orientation: there is nothing in the program of peace research that necessitates a choice between, say, case studies and statistical studies, or between verbal and mathematical formulations, as long as there is a reasonably explicit and disciplined methodology present."

Editorial first issue *Journal of Peace Research*, 1964



Thinking About Next Lecture

*“ Apparent relationships between cause and effect may be uncovered with the **set of cases** examined, but few efforts are made to find out if such relationship also occur **among other cases**. Sometimes historical detail substitutes **for causal argument**, and the adumbration of events leading up to outcomes takes the place of **explanation**”*

Barbara Geddes, 2003:5