

Research Design

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Lecture outline

- Research typologies
- Theory: what is it (good for)?
- Research strategies: from data to theory and back
- Designing social research
- Sample research design

Research typologies

Which typologies do you know?

Scope

Parsimony (~ reductionism)

- Limited scope and already known structure

Holism

- Wide scope and yet-to-emerge structure

Role of the researcher

Subjective

- Researcher-induced interpretations are valid

Objective

- Only rigorous data interpretations are valid

Causality

Logic of explaining

- Causal relationships
- Event „cause“ =(time and mechanism)> event „effect“
=> general knowledge

Logic of understanding

- Understanding of how certain effect has emerged
=> case-specific knowledge

Units

- Cases (*spatially delimited phenomenon observed at a single point in time or over a period of time; Gerring 2007:19*)
- Variables (*concepts that can have various values; Van Evera 1997:10*)

The N

Qualitative

- Small N (up to 10)

Quantitative

- Large N (100 and more)

Direction

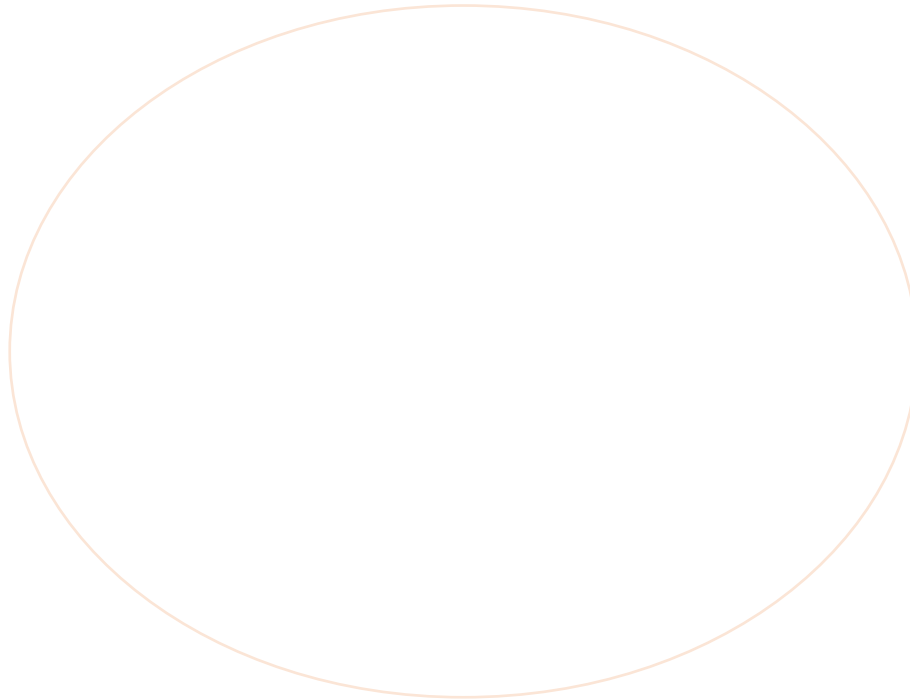
Induction

- Generalizing from available data

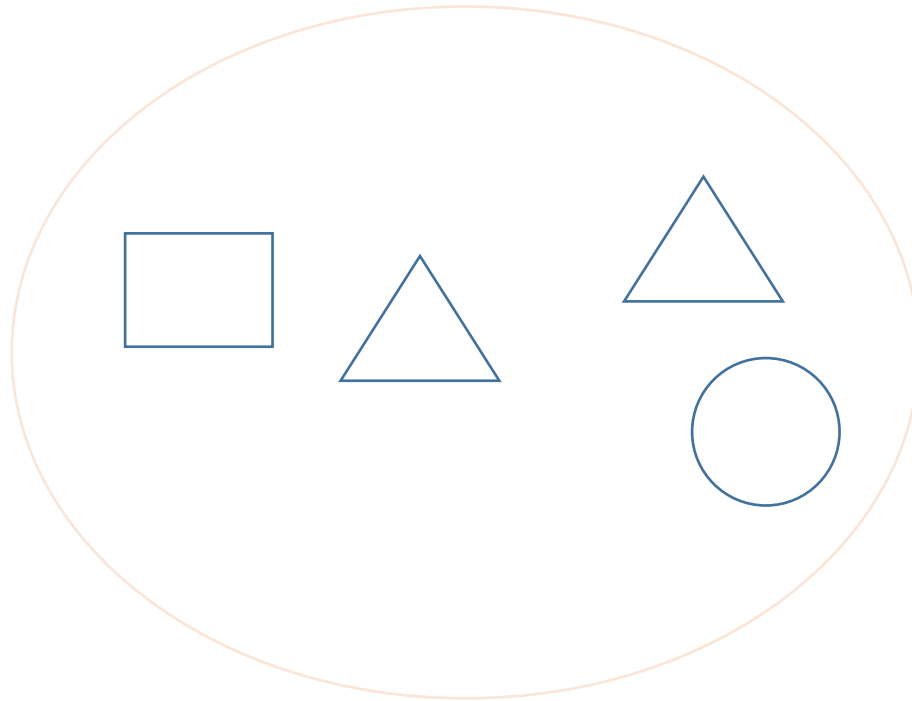
Deduction

- Using general knowledge to interpret data

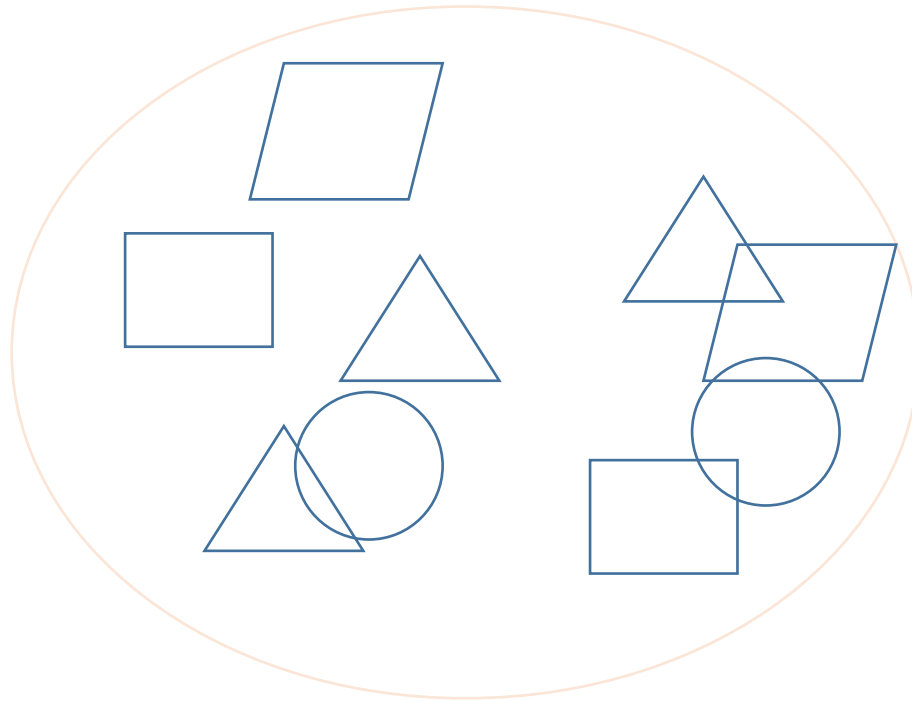
Inductive research strategy I



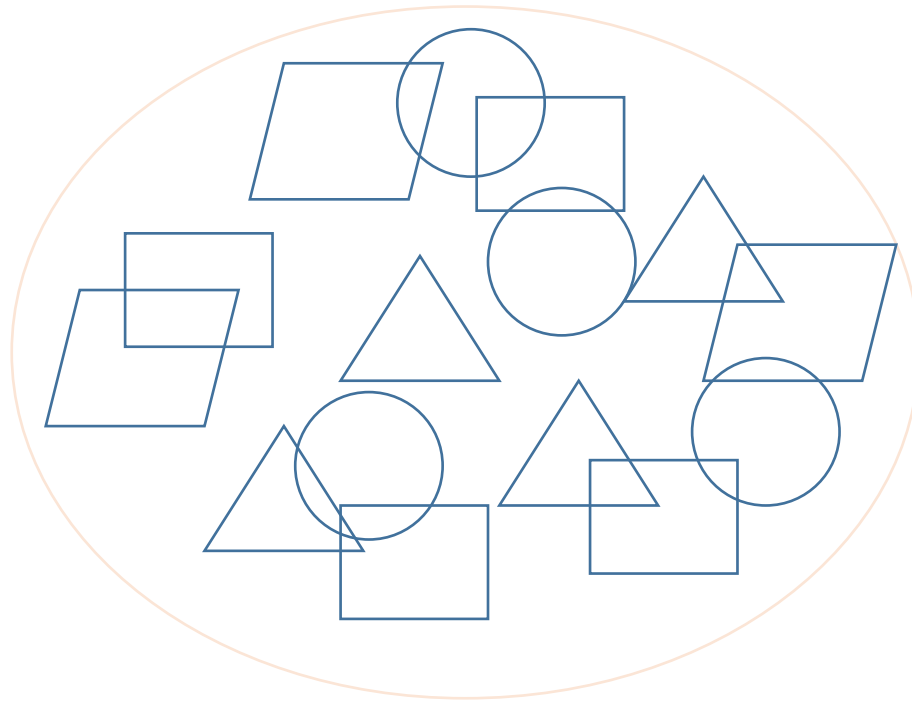
Inductive research strategy II



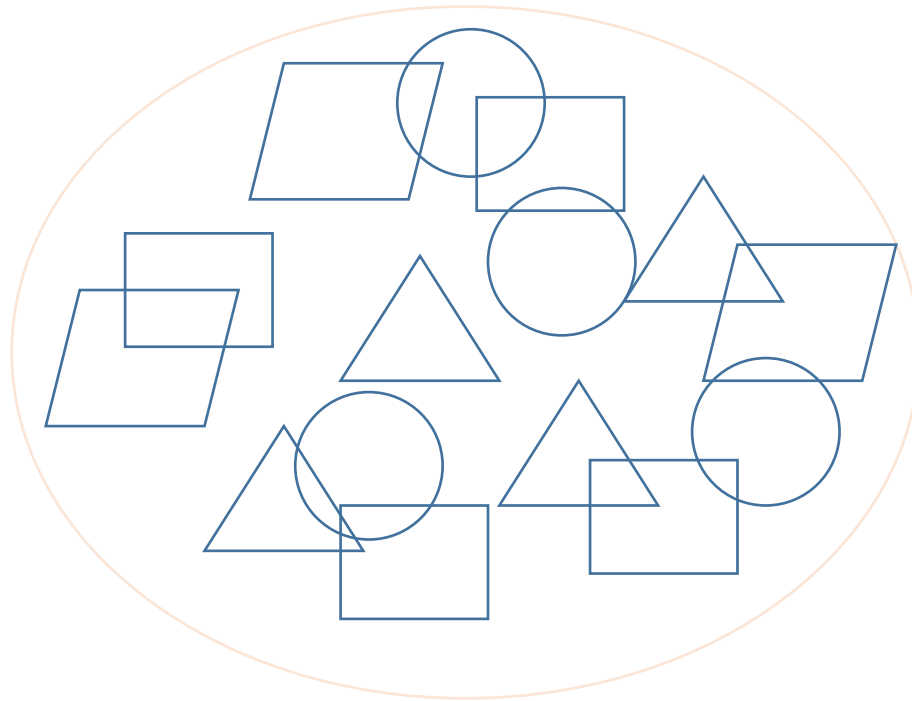
Inductive research strategy III



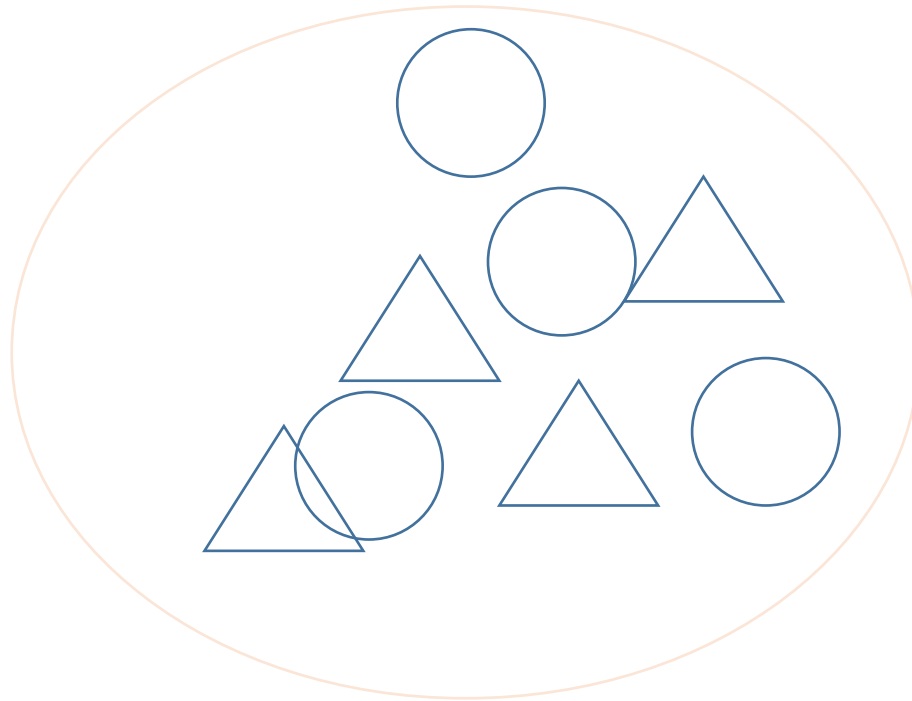
Inductive research strategy IV



Deductive research strategy I



Deductive research strategy II

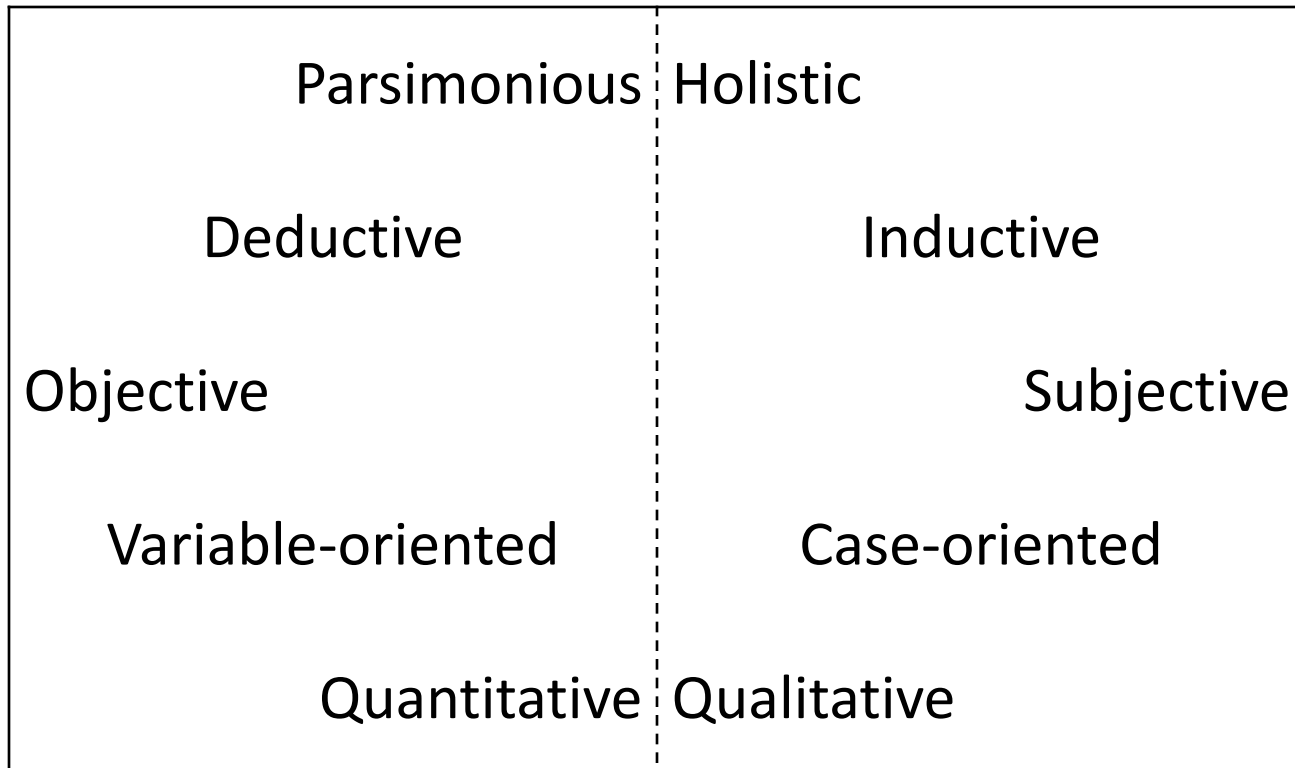


Theory

„A set of interrelated constructs (concepts), definitions, and propositions that present a **systematic view of phenomena** by specifying relations among variables with the purpose of explaining and predicting phenomena.“

Fred Kerlinger, 1986:9

Two meta-typologies



Research design (Blaikie 2011)

- Research topic
- Research question
- Literature review
- Theory
- Method
- Data
- Problems and limitations

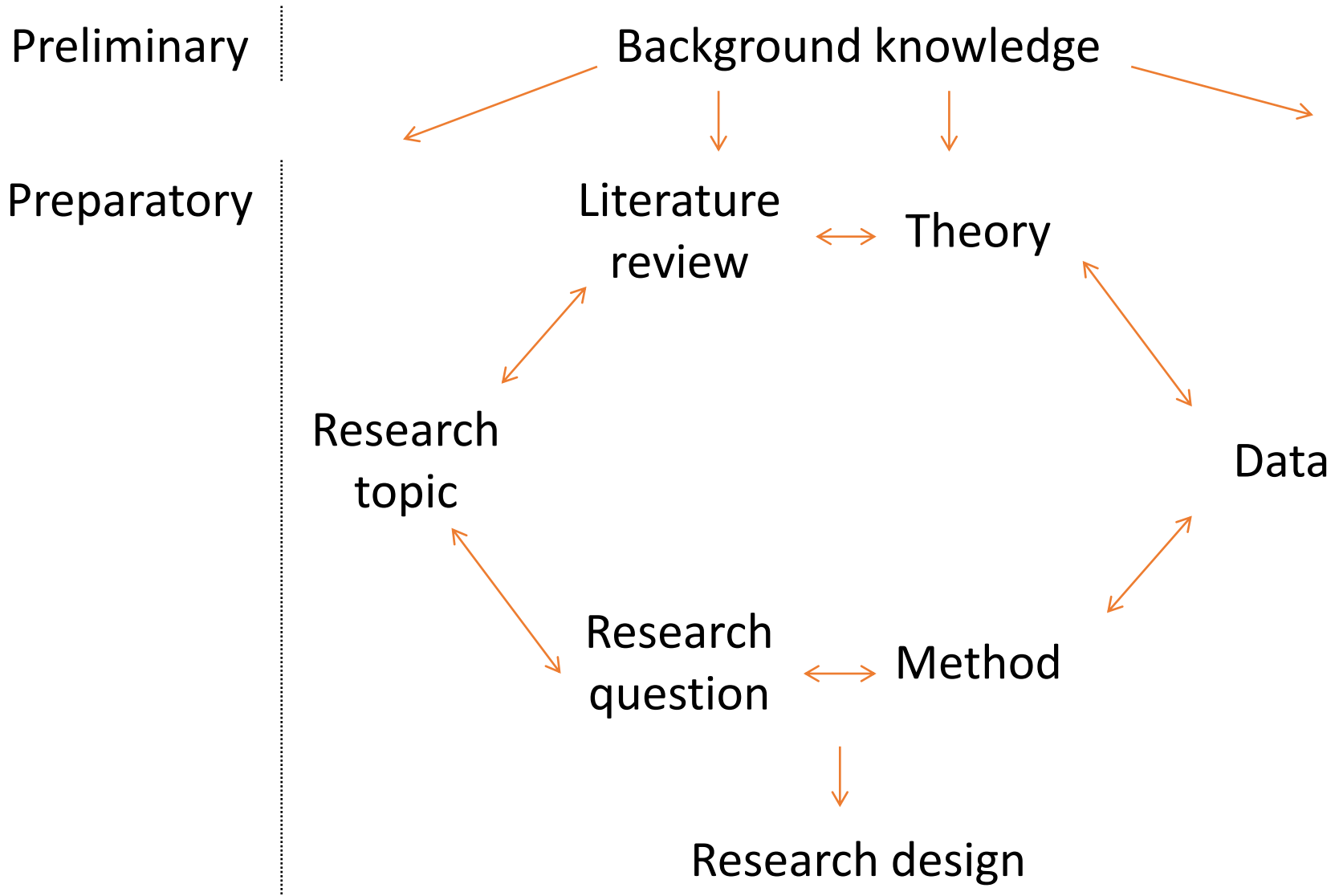
Conducting a research

Phase	Focus on
Preliminary	Background knowledge
Preparatory	Research topic Research question Literature review Theoretical assumptions Methodology Data overview
Analysis	Data collection Data processing Results interpretation
Reporting	Research report

Preparatory phase

- Draws heavily from the substantial knowledge
- Continuous process
- Results in the final version of the research design

Preparatory phase



Research report

- Does not need to follow the structure of the research
- Shall include only information directly related to the aim and scope of the research.

	Deductive	Inductive
Theory and Literature	Basis for the work with data	Research justification
Data	A tool for working with the theory (can be presented separately)	An inseparable part of the analysis

Research report

- Annotation
- Introduction (Research topic & Research question)
- Literature review
- Theory
- Method & Data
- Analysis
- Interpretation
- Conclusions

Sample research design

Ross, M. L. (2001), *Does oil hinder democracy?* World Politics 53.

(<http://www.maxwell.syr.edu/uploadedFiles/exed/sites/ldf/Academic/Ross%20-%20Does%20Oil%20Hinder%20Democracy.pdf>)

Research topic

- The relation between oil rent and the nature of regime.
- Common assumption: rising income implies more democracy
- However: democratizing effect shrinks or disappears if rising income comes from oil.
=> Oil as an exception?

Research questions

- Does oil wealth impedes democracy?
- If yes,
 - Does it happen only in the Middle East or is it valid for all oil-rich states?
 - Is it oil's unique property or is it valid also for non-fuel minerals?
- If yes, what is the causal mechanism?
 - Rentier effect
 - Repression effect
 - Modernization effect

Literature review (Pp 329-337)

- Oil – minerals – democracy nexus
- The „Rentier state“ concept

Theory

The Rentier state concept (Mahdavy 1970)

- Rentier effect
- Repression effect
- Modernization effect

Method

- Statistical analysis (least-squares method)
- Dependent variable: Regime
- Independent variable: Oil and minerals (fuel/non-fuel)
- Control variables: Income, Islam, OECD membership, Regime (t-5)
- Dummy variables: 26 for each year (1971-1997) to capture two time-specific effects: the cold war, the „contagion“ of regime transitions

Indicators and data (Pp 358-361)

- Regime: indexes of Polity98 (Polity III, Polity IV; Freedomhouse)
- Oil and Minerals: export value as fractions of GDP (Sachs and Warnes 1995, Leite and Weidmann 1999)
- Income: GDP PPP (World Bank, CIA World Factbook)
- Islam: % of Muslims in state's population (Barrett 1982; CIA World Factbook)
- OECD: 1/0 (OECD info)
- Regime (t-5): indexes of Polity98

Results

Total: 2,183 observations from 113 countries

» Oil does hinder democracy

» In poor states more

» In oil-poor states more

» This is not limited to the Middle East

» Nonfuel minerals hinder democracy too

» Oil wealth affects the regime through all three mechanisms; mineral wealth mostly through rentier effect and not at all through repression effect