

# PLSC 308: Introduction to Political Research

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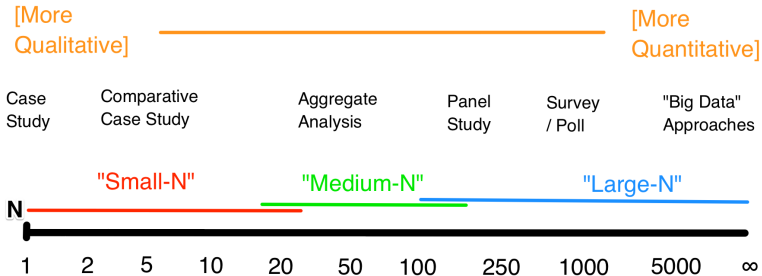
# Observational Research: Themes

- Sample Size
- Qualitative vs. Quantitative
- Longitudinal vs. Cross-Sectional
- Types of Designs

# Experimental vs. Observational Designs

	Experimental	vs.	Observational
Mode	Deductive		Inductive <i>or</i> Deductive
Internal Validity	High		Low
External Validity	Low		High(er)
Relative Cost	High		Low / varies
Relative Power	High		Lower / varies

# A "Map" of Observational Designs



# Typical Sample Sizes & Methods

Study Type	Typical $N =$	Methods
Single Case Study	1	Qualitative
Comparative Case Study (Experimental study)	3-4 (20-30)	Qualitative (Quantitative)
Aggregate Analysis	50-100	Mixed / Quantitative
Panel Study	300-400	Quantitative
Survey	1500	Quantitative
Other Observational Study	???	Quantitative

# Longitudinal vs. Cross-Sectional Studies

## Cross-Sectional:

- “Snapshot”
- Relies on theory to assess causality
- Strong momentary validity
- Can't capture change

## Longitudinal:

- Repeated measures on one or more units over time
- Can establish order/sequence ( $\rightarrow$  causality)
- Can leverage “within-subject” variation
- Introduces more potential problems (history, etc.)

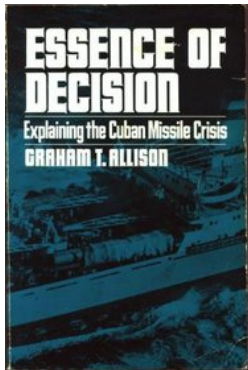
# Single Case Studies

Types:

- Exploratory
  - When little is known about the phenomenon
  - Largely *illustrative*
- Descriptive
  - Extends exploratory
  - Useful for *theory development*
- Critical
  - A crucial test of a theory
  - Useful for *falsification*

# Example: Allison's *Essence of Decision*

- Case study: Cuban Missile Crisis
- Three “models” of decision:
  - Rational Actor
  - Organizational Process
  - Governmental Process
- Each model explained different aspects of the crisis





# Comparative Case Studies

Different approaches:

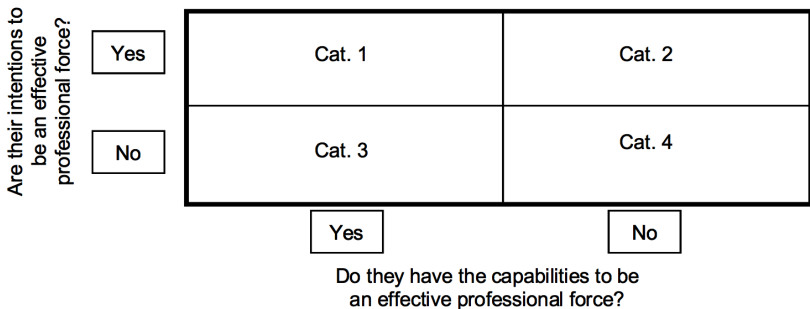
- “Most Similar Systems” / “Method of Difference”
  - Choose cases that are as similar as possible except with regard to the phenomenon the effects of which we are interested in assessing
  - Creates a (loosely) “all else equal” setting.
  - E.g. Putnam's *Making Democracy Work*.
- “Most Different Systems” / “Method of Similarity”
  - Choose cases that are as different as possible with regard to possible explanatory variables.
  - Differences cannot explain similarities; goal is to confirm one particular finding within a wide variety of systems.
  - E.g. Skocpol's *States and Social Revolutions*

# Comparative Case Studies

*“The policing environment can be characterized by terms the U.S. military uses for all military forces: their intentions and capabilities. Intentions refer to whether or not they want to provide an effective professional police force; capabilities refer to whether or not they could provide an effective professional policing if they so desire.*

- From “Non-Kinetic Capabilities for Irregular Warfare: Four Case Studies,” IDA research paper P-4436 (March 2009, p. 162)

# Comparative Case Studies



**Figure A-1. Policing Environment 2x2 Matrix**

## “Aggregate Analyses”

- E.g., country-level studies...
- Blend small- and large- $N$  case selection strategies
- Often combine qualitative and quantitative approaches
- E.g. Janoski & Hicks' *The Comparative Political Economy of the Welfare State* (1994)

# “Big Data” Observational Studies

- Real-time / streaming data
- $N = 100K$ , or 1m, or 1b...
- Longitudinal or cross-sectional
- Often nonparametric / nonstatistical
- Often highly *inductive*

