Research Methods for Political Science

The Empirical Approach to Political Science

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The scientific approach

How do you know things?

- Experience
- Beliefs
- Common sense

Overconfidence

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- Overconfidence
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- We overestimate the proba of small events
- Bias in incorporating new evidence: Harvard vs the rat
- Experts are terrible

Modern political science

- Objective observation, incl. data collection
- Experimentation
- Logical reasoning

Can political science really be scientific?

Humans are not particles...

- Humans are self-reflective, complex, forward-looking creatures
- There is no inter-changeable human
- \Rightarrow We study averages.

Humans are unpredictable

- ullet crazy humans ightarrow averages
- $\,\blacksquare\,$ Randomness is part of optimum strategies \to model it

'Progress has been very slow.'

Actually, progress has been spectacular

Observers affect reality

- Forecasts
- Policies
- Strategies

Attributes of a *scientific* political science project

Verifiable

Data, data, data.

Falsifiable



Falsifiable



Value-free

- "Taxes should be increased" is not value-free
- Taxes destroy jobs is not scientific without evidence

Replicable

- Data access
- Production transparency
- Analytic transparency

Cumulative

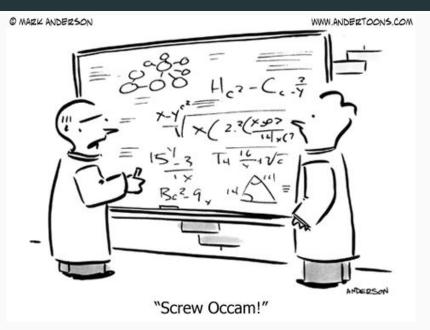


Generalizable





Parsimony



Why theory, and not just data, matters

Data is great, but...

- Overfitting
- spurious correlations
- \Rightarrow theory is critical

Explaining vs Forecasting

- Good explanation, poor prediction
- Good prediction, poor explanation