POLI210: Political Science Research Methods

Lecture 2.2: The Scientific Process

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The scientific process

0. Familiarize yourself with the literature
1. Identity a problem/puzzle/outcome of interest
2. Come up with a research question
3. Clarify the core concepts
4. Develop a theory
5. Derive hypotheses
6. Find a suitable way to test hypotheses
7. Gather empirical evidence
8. Analyze evidence
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Important: this is an endless, iterative process!

- Results refine theory, which leads to more hypotheses, more

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Hypothesis: Formal statement of the relationship between DV and IV

Explanatory theory: Story that justifies the hypothesis/answers a research question

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  - Duverger's Law and Canada's party system

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  - Key: most/all political phenomena are **multicausal**

2. Research questions (examples)

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- i.e. we may all believe in the link Harvard -> earnings, but diverge on the *why*
- Ideally, each theory has *testable implications*

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- Tension: Modifying theory post-hoc

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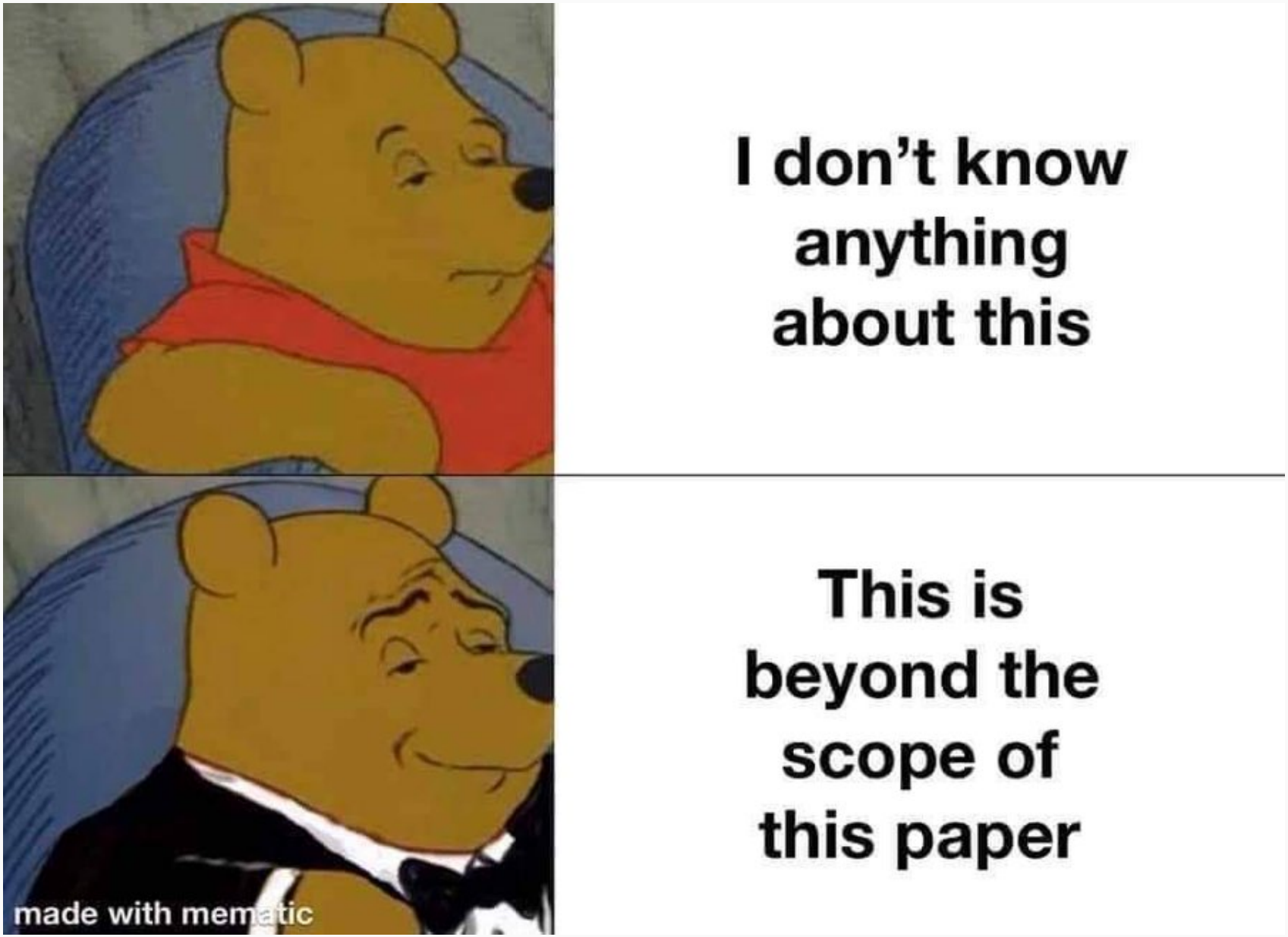
“Beyond the scope”



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- Transparent data collection and analysis

Improvements in transparency

The data, code, and any additional materials required to replicate all analyses in this article are available on the *American Journal of Political Science Dataverse* within the Harvard Dataverse Network, at: https://doi-org.proxy3.library.mcgill.ca/10.7910/DVN/YFPQJH

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