

IC: Economics Research Philosophy

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Research Philosophy

- ▶ Indulge some views about economics
- ▶ Ain't my work; ain't even work
- ▶ A few points, maybe all already obvious to you

Why Have Theory Models?

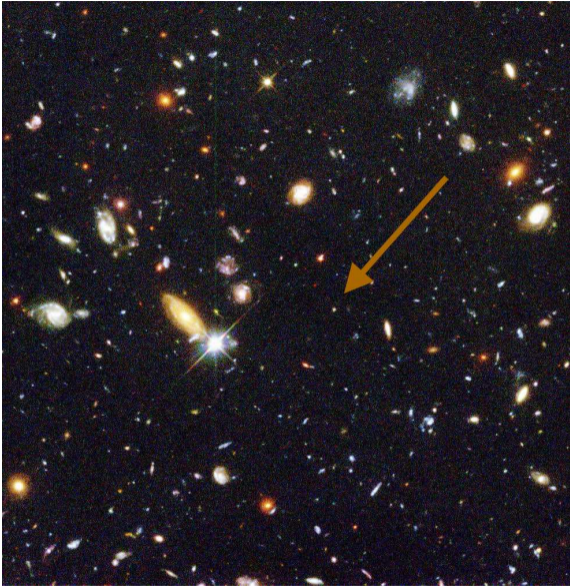
- ▶ We use math to convince ourselves that sketch arguments can make logical sense and are not just drivel.
 - ▶ we don't need math to show off,
 - ▶ or to make arguments obscure to outsiders,
 - ▶ or to haze novices.

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- ▶ We use math to convince ourselves that sketch arguments can make logical sense and are not just drivel.
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 - ▶ or to make arguments obscure to outsiders,
 - ▶ or to haze novices.
- ▶ ...though we do admittedly sometimes enjoy it!

Existence Proof

- ▶ Under assumptions I-V, there exists a world in which ...



I.e., Really??

- ▶ Funny,
 - ▶ but unfair,
 - ▶ and not even original! [Paul Pfliederer]

Plausibility

- ▶ We need to know whether a sketched economic argument seems too narrow.
- ▶ Is argument viable? “Knife-edge”?
- ▶ Part of: possible but implausible ?!
 - ▶ distinction is often lost;
 - ▶ many things are possible but not plausible;
 - ▶ “smell test.”

Bayesian Persuasion

- ▶ Did classes already cover Bayesian Persuasion?
 - ▶ think “gerry-mandered” information
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- ▶ Where is Bayesian Persuasion plausible?

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 - ▶ wonderfully clever, but where is it plausible?
- ▶ Where is Bayesian Persuasion plausible?
- ▶ if you think how cleverly someone gerry-mandered the information to convince you, what will you really think?
 - ▶ Dave Allen — Adam and Eve sketch

Tautologies and Theories?

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Tautologies and Theories?

- ▶ What is the difference between a tautology and a theory?
- ▶ PS: a tautology that you have not recognized before is *more* powerful than a theory!

Constraints and Models

- ▶ Universal economics:
 - ▶ you cannot have both: guaranteed external validity *and* an interesting theory that you need to test empirically.
 - ▶ if guaranteed, you would not need a test!
 - ▶ such insights would be tautologies, not economic models.
 - ▶ identities are math,
 - ▶ knowledge of tautologies can be important,
 - ▶ but we do not need empirical evidence to tell us whether this is how people behave in this world.

Empirical Analog II

- ▶ Think of theory-based ML data surface prediction:
 - ▶ if super-flat, tautology
 - ▶ too many unobs parameters can map into obs data
 - ▶ ref: “obvious, uninteresting” ?
 - ▶ if super-sharp, non-robust
 - ▶ too few parameters for the theory
 - ▶ rejection was to be expected
 - ▶ ref: “won’t hold, uninteresting”
- ▶ referee needs to reflect on economic judgment of “interesting”

Think About

- ▶ Can it be true ?
- ▶ Is theory plausible?
- ▶ Can it be false?
- ▶ Can theory deliver interesting insights / links?
 - ▶ can it help predict (puzzling?) behavior?
- ▶ Are your empirics in the “sweet spot”?
 - ▶ Realize that you can never accept, only reject.
 - ▶ How powerful was your test? Too p? Not p?

Caveat Emptor

- ▶ I am guessing majority of economists share these views;
- ▶ ... but not all do. Pick and choose your own.