

PHILOSOPHY OF ECONOMICS

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Features of Economic Theorising
Popperian Approaches

21. 10. Lakatosian Perspectives
Friedman's Instrumentalism

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Economic Models

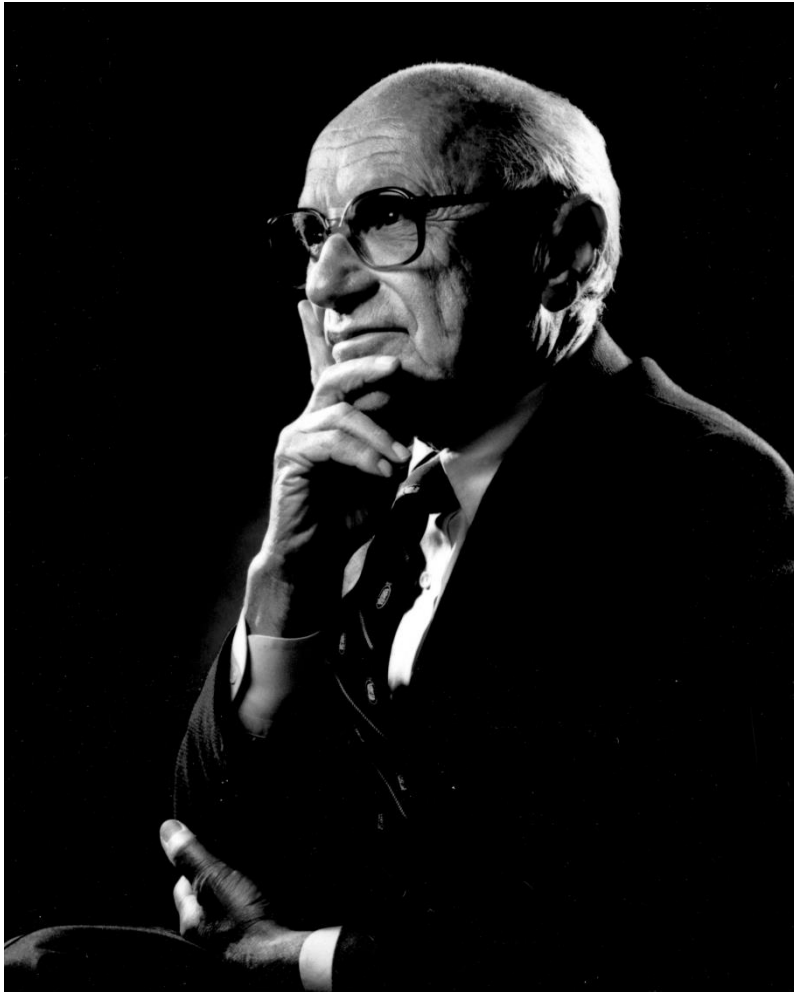
4. 11. Economic Models, cont.
Ceteris Paribus Laws
(Experiments in Economics)

Looking Back

- Falsificationism
 - falsifiability
 - severe testing
- Problems for Economics
 - unrealistic/false assumptions
 - little focus on falsification
- Open Questions
 - Is there a way how we can defend economic methodology?

FRIEDMAN'S INSTRUMENTALISM

Background



Milton Friedman (1912-2006)

Highly influential essay:
“Methodology of Positive
Economics” (1953)

Friedman's Instrumentalism

1. Friedman's Instrumentalism
2. "Unrealistic" Assumptions
3. General Reflections

Realists and Instrumentalists (Reiss)

	<i>Realists</i>	<i>Instrumentalists</i>
(a) Regard science as valuing:	truth;	usefulness
(b) See this value realized mainly in building models that:	faithfully represent causal structure;	make predictions about robust relations among measurable variables
(c) are: ... regarding our ability to learn causal structure.	optimistic	pessimistic

Reiss, Julian. "Idealization and the Aims of Economics: Three Cheers for Instrumentalism." *Economics and Philosophy* 28, no. 3 (2012): 363–83.

The Aims of Economics

- “[The] task [of economics] is to provide a system of generalizations that can be used to make correct predictions about the consequences of any change in circumstances. Its performance is to be judged by the precision, scope, and conformity with experience of the predictions it yields.”
(Friedman)
- Predictive Success is the main aim of an economic theory
- Simplicity and Fruitfulness might be secondary desirable qualities (?)

Friedman on Unrealistic Assumptions

- There is no issue of the truth of the assumptions over and above predictive success:
the relevant question to ask about the “assumptions” of a theory is not whether they are descriptively “realistic” [...] but whether they are sufficiently good approximations for the purpose in hand. And this question can be answered only by seeing whether the theory works, which means whether it yields sufficiently accurate predictions [...].
- Even more radical (the “F-Twist”):
Truly important and significant hypotheses will be found to have ‘assumptions’ that are wildly inaccurate descriptive representations of reality, and, in general, **the more significant the theory, the more unrealistic the assumptions** [...].

Some Arguments

Falling in Vacuum

- The law that bodies fall with $s = \frac{1}{2} gt^2$ “assumes” that bodies fall in a vacuum
- It’s pointless to argue that we’re not in a vacuum

More by Less

- Good theories must tell us what is relevant
- A complete theory of the wheat market would be useless

Friedman's Instrumentalism

1. Friedman's Instrumentalism
2. "Unrealistic" Assumptions
3. General Reflections

What does Friedman mean by “unrealistic”?

- **Neglibility (Marginality) Assumptions.** Some causal factor is marginal. Our model excludes it and is “unrealistic” in this sense.
 - This claim can be empirically tested
 - It's indeed no objection against such an assumption that it is 'unrealistic'
 - But: it's not clear that economics merely uses marginality assumptions, or that the critics of economics objected to such assumptions

(The following three slides follow Musgrave, Alan. “‘Unreal Assumptions’ in Economic Theory: The F-Twist Untwisted.” *Kyklos* 34, no. 3 (1981): 377–387.)

What does Friedman mean by “unrealistic”?

- **Domain Assumptions.** The theory only applies in the absence of some causal factor. Our theory is “unrealistic” in that it does not cover all cases.
 - Not to be confused with marginality assumptions
 - The more domain assumptions we make, the less testable our theory becomes
 - On this reading, the Radical Thesis is false, perhaps even its opposite is true

What does Friedman mean by “unrealistic”?

- **Heuristic Assumptions.** To be able to develop a full theory, we (initially) ignore a factor we know to have a causal influence
 - if we tried to include all factors in our theory at once, it would be hopelessly complicated
 - we use a method of “successive approximation”
 - But: the Radical Thesis is not true on this reading either

Friedman's Instrumentalism

1. Friedman's Instrumentalism
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3. **General Reflections**

Implications of Instrumentalism

- If we're instrumentalists, do we not have pragmatic reasons to care for realistic assumptions?
- Abstract model-building is vindicated (to a degree)
- But: model-building for model-building's sake is strongly opposed
- What would economics look like if it lived up to instrumentalist standards?

See Hands, Wade. "Did Milton Friedman's Methodology License the Formalist Revolution?" *Journal of Economic Methodology* 10, no. 4 (2003): 507–20.

LAKATOSIAN PERSPECTIVES

Lakatosian Perspectives

1. Introduction
2. Research Programmes
3. Economics as a Research Programme
4. Problems

Historicist Criticism of Popper

- 1960s/1970s: Kuhn, Lakatos, Feyerabend
- Science operates in a very different way than Popper claims: much more chaotic
- Simple ideas about falsification are mistaken
- Good science need not always to adhere to severe testing

Lakatos' imaginary Newtonian

A physicist of the pre-Einsteinian era takes Newton's mechanics [...] and calculates [...] the path of a newly discovered small planet, p . But the planet deviates from the calculated path.

Does our Newtonian physicist consider that the deviation was forbidden by Newton's theory [and therefore he rejects Newton's theory]?

No. He suggests that there must be a hitherto unknown planet p' which perturbs the path of p . [...] The planet p' is so small that even the biggest available telescopes cannot possibly observe it: The experimental astronomer applies for a research grant to build yet a bigger one.

[Planet p' is not observed even with the bigger telescope.] Does our scientist abandon Newton's theory and his idea of the perturbing planet? No. He suggests that a cloud of cosmic dust hides the planet from us. [...]

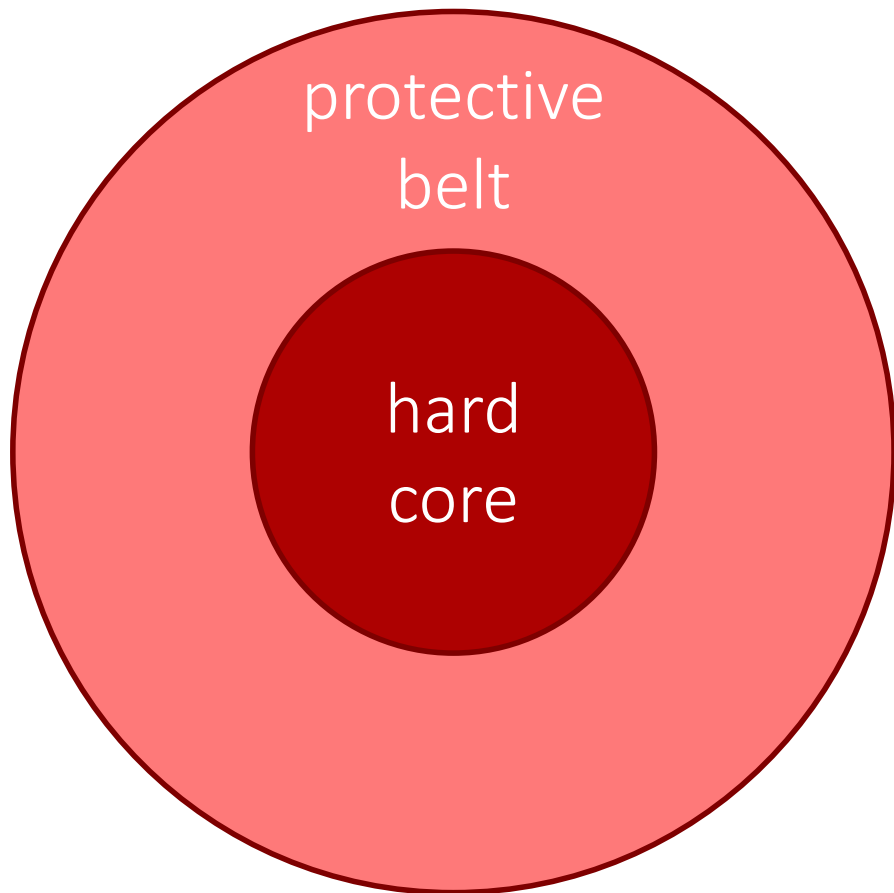
Moral of the Story

- The scientist is committed to Newtonian physics
 - perhaps because of the elegance of the theory, or its appeal in other areas
- S/he is more likely to reject the outcome of her experiment than the theory
- In response to contradicting data, she will state (and revise) various auxiliary hypotheses

Lakatosian Perspectives

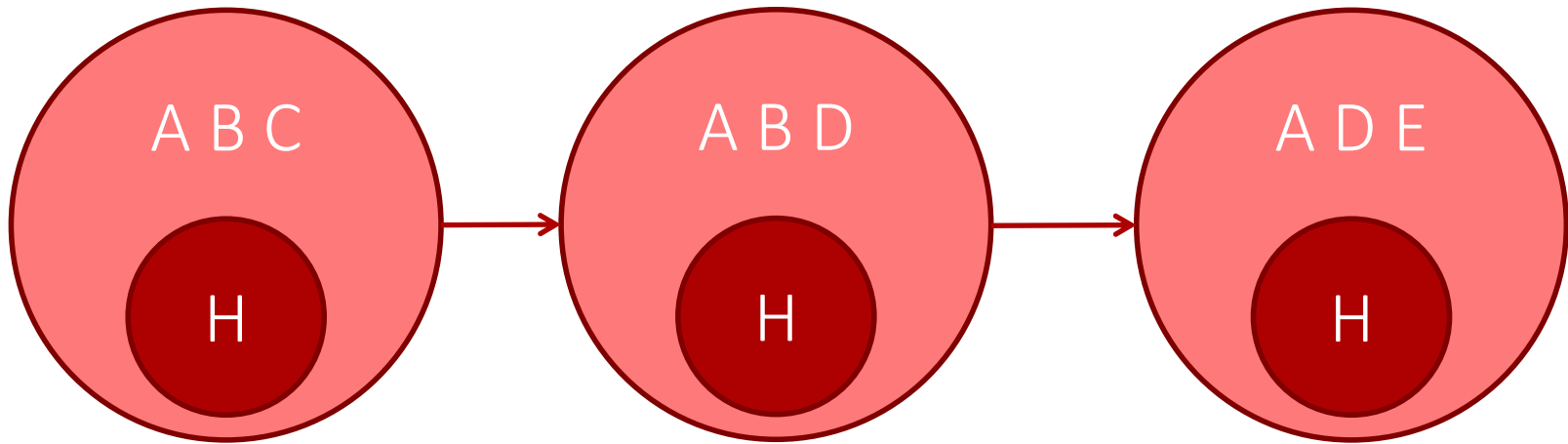
1. Introduction
2. **Research Programmes**
3. Economics as a Research Programme
4. Problems

Research Programmes



- The unit of theoretical assessment is the **research programme**, not the individual theory
- A research programme consists of
 - a hard core
 - a protective belt

Progressive vs degenerate research programmes



- Progressive shifts
 - theoretical progress: more empirical content, novel predictions (more conceptual clarity)
 - empirical progress: more corroborated claims
- Degenerating shifts
 - ad hoc modifications in protective belt in response to empirical anomalies

History of Research Programmes

- New research programmes
 - core still needs to be hardened
 - unrealistic/falsified observations abound
 - protective belt still heavily changing
- Older research programmes
 - established core
- Competition between research programmes
 - always comparative

Lakatosian Perspectives

1. Introduction
2. Research Programmes
3. **Economics as a Research Programme**
4. Problems

Weintraub's Reconstruction of the Hard Core

1. There exist economic agents.
2. Agents have preferences over outcomes.
3. Agents independently optimize subject to constraints.
4. Choices are made in interrelated markets.
5. Agents have full relevant knowledge.
6. Observable economic outcomes are coordinated, so they must be discussed with reference to equilibrium states.

Advantages

- Economics does seem to have a hard core which generally remains untouched
- Lakatos' approach appears to better account for what economists are actually doing
- Much progress in economics is theoretical, not empirical

“A methodology that allows access to the kingdom of science without repentance for a lifetime of non-falsificationist practice is simply too alluring for most economic methodologists to resist.”
(Hands 1985, 2)

Lakatosian Perspectives

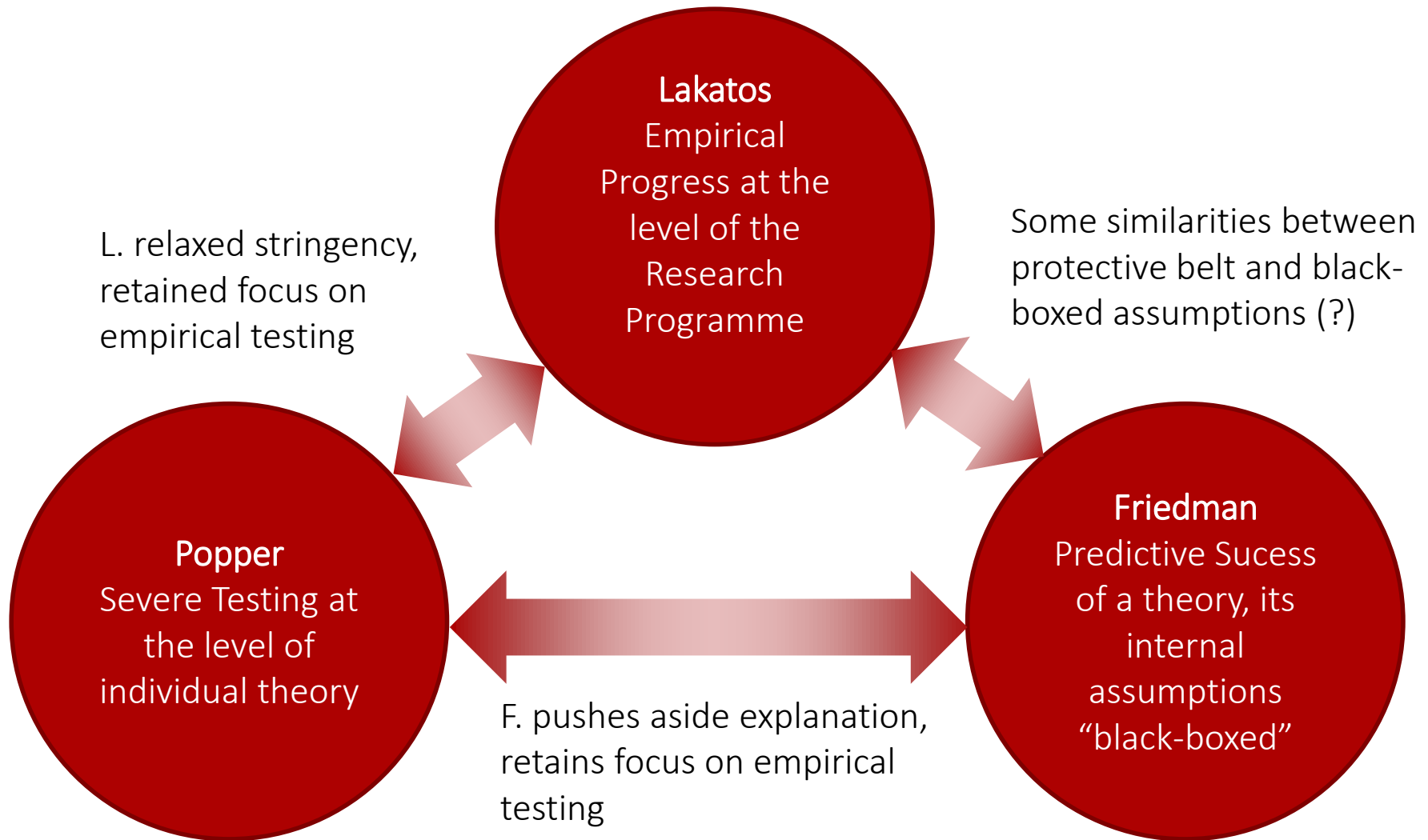
1. Introduction
2. Research Programmes
3. Economics as a Research Programme
4. **Problems**

Weaknesses

- Is there really a hard core? Or is economics more a set of common modelling techniques?
- Economics might be “degenerate”: does it really make empirical progress? theoretical progress?
- It's unclear to what degree we can use Lakatos's approach normatively

CLOSING REFLECTIONS

Criterion for Good Science



Thanks!