

Philosophy and Methods of the Social Sciences

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Social Studies 40

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T&TH (10–11 AM)

Pound Hall #200

Lecture 10: Feb. 27

Prediction

Outline

- 1: The arc so far. . .
- 2: Friedman, instrumentalism, and anti-realism
- 3: Nagel's destructive clean-up job?
- 4: Individualism, predictive failure, and Rosenberg's diagnosis
- 5: MacIntyre on generalities in the human sciences
- 6: Preview:
 - Rational choice, the return of holism, and the return of instrumentalis/anti-realism (Lecture 10)
 - Action-explanation as explanation by value (Lecture 18)

1:

The arc so far...

- ▶ Individualism? → Interpretivism? → Thought-dependent action? [Weber, Taylor, MacIntyre]
- ▶ Thought-sufficient reality? [Kuhn]
- ▶ Action-explanation as non-causal action-description? → Thought-constituting action? [Skinner and Winch]
- ▶ Casing as filing actions or events under the right description? → Does one's objects' thoughts matter?
- ▶ ...

... the arc so far... now...

- ▶ Non-causal explanatory descriptions? → Non-causal non-explanatory non-descriptions...?!?
- ▶ Science as a tool, as a mere instrument? As a way of throwing up models?

2:

Friedman, instrumentalism, and anti-realism

The natural view

“When we read about the results of scientific discoveries, we usually understand these accounts as descriptions of nature. If we pick up an issue of *Scientific American*, for example, we may find an article about the way in which some feature of the immune system works, or about the origin of the planets. It seems strangely trivial to note that we understand such article to be telling us about the immune system, or how the planets came to be. What else would they be about except what their words say they are about?”

[Clark Glymour, “Realism and the Nature of Theories,” 104]

An equally natural view?

“Viewed as a body of substantive hypotheses, theory is to be judged by its predictive power for the class of phenomena which it is intended to ‘explain.’ [. . .] [T]he only relevant test of the *validity* of a hypothesis is comparison of its prediction with experience.”

[Friedman, 8–9]

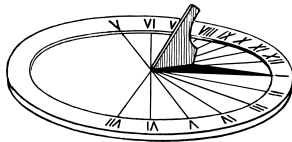
A tension?

- ▶ Prediction as sufficient?
- ▶ Prediction as necessary?

An intuitive objection

Prediction as sufficient?

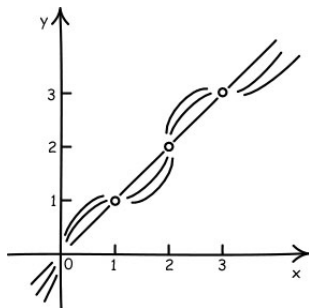
But: The sun-dial?



Another worry

Prediction as sufficient?

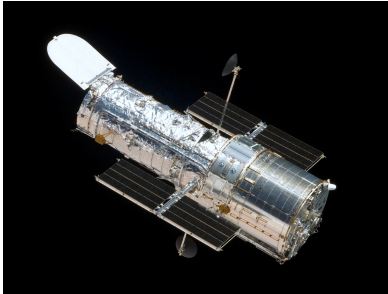
But: Undetermination of theory by data?



Yet another worry

Prediction as sufficient?

But: The demarcation problem (between science and pseudo-science)



Science as an instrument

- ▶ Do hammers have a literal meaning?
 - ▶ Are they kinds of the things that can be literally true or false?
- ▶ Is scientific theory a series of tautologies—of abstract quasi-definitional truths—that have no empirical content?
 - ▶ Is “ $2 + 2 = 4$ ” falsified, if the laws of empirical nature are such that one of three pigeons dies whenever a fourth is seen by a human?

Scientific theory as a useful fiction

“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.”

[Friedman, 14]

The “unreality” of “assumptions”?

- ▶ Weberian ideal-types?
- ▶ Kant on the “phenomenal”?
- ▶ Rational-actor models?
- ▶ Economic assumptions about ideal markets?

Nagel's destructive clean-up job?

- ▶ Forms of “unrealism” :
 - ▶ Nothing false, but just incomplete
 - ▶ Lots of falsity – of importantly different sorts
 - ▶ No realization, but with explicable deviation
- ▶ True description, but no explanation: the “as-if” theory of the firm
- ▶ Are theories literally *meaningless*?
- ▶ Or are they forms of explanation?
 - ▶ Are instrumentalism and anti-realism therefore dead?
 - ▶ For the curious, cf. Rosenberg's footnotes, esp. Varian and Gibbard, “Economic Models”

4:

Individualism, predictive failure, and Rosenberg's diagnosis

The demands of prediction

- ▶ Predictive success as necessary. . . in some sense
- ▶ But the history of economics is a history of predictive failure
- ▶ This calls out for explanation
- ▶ What's the culprit?

Rosenberg's culprit

Individualism!

I.e., the appeal to intentional—and intensional—vocabulary in most forms of social science: the appeal to be agents' beliefs and desires

The main claims

- ▶ Thought has no determinate “echo” in empirical—observable—reality (cf. Davidson)
- ▶ Intentional—and intensional—vocabulary does not carve up nature “at the joints” . . . does not speak nature’s language
- ▶ [A history of problematically gendered conceptions of science here. . . cf. Lecture 13]
- ▶ As *justice* did not cause the French Revolution, nor do beliefs cause behavior
- ▶ Belief-talk is, in an empirical sense, false: as there are no Euclidean triangles in nature, there are no beliefs in nature
- ▶ Nature speaks in extensional terms—matter in motion—but economics and the social sciences generally speak—lamentably?—in intensional terms

Intentionality, intensionality, and extensionality

Recall the arguments picked out in Lecture 4: “Prospects for Reconciliation?”

MacIntyre's agreement?

“It follows that the description of [agents'] behavior at the level of activity—in terms of decisions, relationships, goals and the like—would be very difficult in its logical and conceptual structures from the description at the level of electrical impulses. It would be difficult to give the notion of reducing one mode of description to the other any clear sense.”

[MacIntyre, 100]

So what is economics?

Just applied mathematics?

Rosenberg on economic practice

Non-causal non-explanatory non-descriptions. . . ?!?

Misplaced *desiderata*?

Pushing back?

- ▶ Too constricted a conception of “nature”?
- ▶ Too constricted a conception of “causation”?

- ▶ “The concepts of [belief and desire] have their proper home in explanations of a special [*sui generis*] sort: explanations in which things are made intelligible by being revealed to be, or to approximate to being, as they rationally ought to be. This is to be contrasted with a style of explanation in which one makes things intelligible by representing their coming into being as a particular instance of how things generally tend to happen.”

[John McDowell, *Mind, Value, and Reality*, 328]

- ▶ Why not think that belief-talk is, in some different sense, sometimes quite true?
- ▶ Why not think that beliefs sometimes work as causes?
- ▶ Why not think that “how things rationally ought to be” causes “how things are”?

5:

MacIntyre on generalities in the human sciences

Predictive weakness as failure?

What is the status of social-scientific generalizations?

- ▶ Peculiarities?
 - Non-universal?
 - No determinate scope?
 - Bear substantial counter-examples?

Status of social-scientific generalizations

A controversial example: “The jellyfish of species J has X tentacles.”

- ▶ True of all J jellyfish?
- ▶ True of most J jellyfish?
- ▶ “When nothing—not even Fortuna—interferes, a J jellyfish has X tentacles.”
- ▶ So-called “Aristotelian categoricals”? E.g., “The human is a rational animal.” Or: “The human has ten toes.” Back to—outdated and unfortunately metaphysical—conceptions of the human *essence*?

6:

Preview:

- ▶ Rational choice, the return of holism, and the return of instrumentalism/anti-realism (Lecture 10)
- ▶ Action-explanation as explanation by value (Lecture 18)