

# Epistemology Naturalized

Christian Wüthrich

<http://philosophy.ucsd.edu/faculty/wuthrich/>

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# The Big Picture

## Thesis (Naturalism)

*Naturalism maintains that philosophical inquiry is continuous with scientific inquiry.*

(cf. Aristotle)

*Question: what does this mean more precisely?*

E.g. philosophy can use results from science to help answer **philosophical** questions **even in the philosophy of science**

⇒ **Circularity charge**: viciously circular to use scientific results to justify scientific practice...

# Foundationalism

- scientific theory must first be put on a firm and secure foundation, which must be external to science
- once scientific practice is justified by such an external standpoint, it inherits the respectability of this standpoint
- Naturalism denies the existence of and the need for any such foundation, bc description of knowledge and science no more certain than science itself.

# Three types of epistemologists

A tendentious nomenclature

- 1 **A priorists**: only what can be known *a priori* is relevant to epistemology
- 2 **Armchair epistemologists**: empirical knowledge OK, but only common sense version, what can be known “from the armchair”
- 3 **Scientific epistemologists**: need to perform empirical studies for epistemology

# What is naturalized epistemology?

(Richard Feldman (2001), "Naturalized epistemology", *Stanford Encycl. of Phil.*)

## Characterization (Naturalized epistemology)

*"Naturalized epistemology is best seen as a cluster of views according to which epistemology is closely connected to natural science [...either by making] use of results from the sciences that study human reasoning in pursuing epistemological questions [...or by proposing] accounts of [paradigmatically epistemological] statements entirely in terms of scientifically respectable objects and properties." (Feldman, p. 1)*

# Three types of naturalists

- 1 **Replacement naturalism**: traditional epistemology should be replaced by appropriate science such as psychology, cog sci
- 2 **Cooperative naturalism**: while there are purely evaluative (“philosophical”) questions to pursue, empirical results from science are useful resource to achieve progress in addressing evaluative issues; scientific results may be relevant to and legitimately used in resolution of traditional epistemological problems
- 3 **Substantive naturalism** (example: Goldman’s reliabilism): all epistemic facts are natural facts
  - What are epistemic facts? They are expressed by evaluative epistemological sentences using what Goldman called epistemic terms.
  - What are natural facts? E.g. they include all facts that a **complete** science will acknowledge.

## W V O Quine (1908-2000): replacement naturalism



- Oberlin College, PhD Harvard (1932), studied with Alfred North Whitehead, influenced by Alfred Tarski, Rudolf Carnap
- taught in Brazil and at Harvard; notable students include Donald Davidson, David Lewis, Daniel Dennett
- important contributions to philosophical logic, epistemology, metaphysics, phil of science, phil of language

# “Epistemology naturalized” (1969)

Main theses:

- 1 philosophy should not give foundation for scientific knowledge
- 2 epistemology should be absorbed by scientific psychology; only questions that can be answered by psychology are relevant



*“Epistemology [as traditionally conceived] is concerned with the foundations of science.” (p. 69)*

- studies in foundations of maths either conceptual (“meaning”) or doctrinal (“truth”)
- conceptual analyses attempt to maximize clarity, while doctrinal studies try to maximize certainty, although both ideals are linked
- ideal in phil of maths: reduce all mathematical theorems to logic
- for technical reasons (Gödel’s incompleteness theorems), studies in foundations of maths do not offer a proof how math certainty is possible bc such reduction can be shown to fail
- analogous ideal in epistemology: reduction of all natural knowledge to sense data
- conceptual: explaining notion of body in terms of sense data
- doctrinal: justifying our empirical knowledge in terms of sense data

# Anti-foundationalism

*“The Humean predicament is the human predicament.” (p. 72)*

- conceptual reduction to sensory terms did not help to establish certain foundation for both everyday knowledge as well as scientific knowledge
- on doctrinal side, we are no “farther along today than where Hume left us” (72)
- hope inspired by Bentham who introduced notion of contextual definition: atoms of meaning are sentences rather than single terms ⇒ translate entire sentences about bodies to sentences about sense impressions
- powerful addition: set-theoretic resources
- Carnap (*Der logische Aufbau der Welt*, 1928) came closest to fulfillment of positivist ideal
- Cartesian quest for certainty is lost cause, foundationalist attempts to answer skeptic fail

## *Nota bene:* regarding empiricism

- The fact that Quine's primary targets are empiricist versions of foundationalism (particularly Carnap) does not imply that he discounts observational evidence or experience more generally!
- “[W]hatever evidence there **is** for science **is** sensory evidence.” (75)
- Observation sentence: “a sentence on which all speaker of a language give the same verdict when given the same concurrent stimulation.” (86f)
- “[O]bservation sentences are the repository of evidence for scientific hypotheses.” (88)

# The naturalist move

*“The stimulation of his sensory receptors is all the evidence anybody has had to go on, ultimately, in arriving at his picture of the world. Why not just see how this construction really proceeds? Why not settle for psychology?” (75)*

- Quine seem to propose that efforts to show that we can in fact have knowledge should be replaced by study of how we form beliefs
- ⇒ study psychological processes which take sensory stimulations and deliver beliefs about the world

More precisely:

*“Epistemology, or something like it, simply falls into place as a chapter of psychology and hence of natural science. It studies a natural phenomenon, viz., a physical human subject. This human subject is accorded a certain experimentally controlled input—certain patterns of irradiation in assorted frequencies, for instance—and in the fullness of time the subject delivers as output a description of the three-dimensional external world and its history. The relation between the meager input and the torrential output is a relation that we are prompted to study for somewhat the same reasons that always prompted epistemology: namely, in order to see how evidence relates to theory, and in what ways one’s theory of nature transcends any available evidence... a conspicuous difference between old epistemology and the epistemological enterprise in this new psychological setting is that we can now make free use of empirical psychology.” (82f)*

# The circularity charge against naturalism

- viciously circular to use scientific results to justify scientific knowledge (which in turn is justified by epistemology)
- charge is essentially foundationalist: scientific theory must first be put on a firm and secure foundation, which must be external to science; once scientific practice is justified by such an external standpoint, it inherits the respectability of this standpoint
- Quine (and most naturalists) denies the existence of and the need for any such foundation, bc description of knowledge and science no more certain than science itself.
- “[S]uch scruples against circularity have little point once we have stopped dreaming of deducing science from observations.” (76)

# The new harmony bw epistemology and natural sci

*“The old epistemology aspired to contain, in a sense, natural science; it would construct it from sense data. Epistemology in its new setting, conversely, is contained in natural science, as a chapter of psychology. But the old containment remains valid too, in its way... There is thus reciprocal containment... We are after an understanding of science as an institution or process in the world, and we do not intend that understanding to be any better than the science which is its object. This attitude is indeed one that Neurath was already urging in Vienna circle days, with his parable of the mariner who has to rebuild his boat while staying afloat in it.” (83f)*

# Summary and outlook

- old epistemology concerned with justificatory relation between basic evidence (*a priori* or empirical) and our belief about world
- new epistemology instead investigates causal connection bw sensory evidence and our beliefs about world
- few philosophers have followed Quine in his radicality, even Quine later became more moderate
- perhaps both types of issues are relevant and interesting  $\Rightarrow$  cooperative naturalism
- $\exists$  distinctly philosophical questions although science contributes to their answers
- science as **resource** for philosophy, not as its **replacement**