

Axiomatization of Otto Neurath's Encyclopedism

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Empiricism Needs “Updating”. Neurath’s Unification Program Cannot Have All Sciences Be Empirical

Abstract

Neurath’s instrument for propagating his “wissenschaftliche Weltauffassung” (manifesto of the Vienna Circle, 1929) was to unify science: to gather together and concentrate all that was truly scientific for the betterment of mankind. Neurath was very concerned that this unification both demonstrate as well as confirm empiricism as the main general principle of all knowledge.

I. Empiricism not enough. Is empiricism a sufficient foundation for all science, however? If logic and mathematics contain knowledge, the answer is: no. If statistics and decision theory contain knowledge: no. If game theory and (welfare or other normative) economics contain knowledge: no. All of these are normally classified among the sciences. Ethics is often not classified among the sciences—although I think it should be—, but it is also not empirical. (Some philosophers friendly to logical empiricism such as John Dewey and C. I. Lewis thought ethics was empirical, but logical empiricists were honest enough to disagree, just as it disagreed with J. S. Mill that logic and mathematics were empirical.) All of these fields require rational intuition for justifying their principles. This can be considered as a type of observation providing data or information supporting them, analogous to empirical observation supporting empirical propositions (Gödel).

II. Why is it not enough? If intuition is a form of observation, we might think that empiricism’s main methodological criterion of testability is fulfilled, so the debate would seem to be over if empiricism were merely identified with testability. But this would violate empiricist tradition, which had always been aimed against rationalism—held by empiricists to be metaphysical and “consignable to the flames” together with theology and magic (Hume); empiricists had always limited observation to that of the five empirical senses (they are actually over a dozen,

based on physiological classifications of receptors); and age-old tradition reserved the loaded term “sixth sense” to the inner light of rational insight, with its Pythagorean-Platonist-occultist connotations. It would be a dishonest hoax on posterity, an “Etikettenschwindel”, to suddenly welcome back the prodigal son of ancient philosophy so definitely dismissed by Locke and Hume, and pretend all were well, no harm was done. Harm was done: empiricists called ethics meaningless, discouraging its development for many decades; Wittgenstein even called logic meaningless, which would have discouraged its development (or at least that of metatheory) if more than a few had been fooled; empiricism had no justification for rejecting Hitler, contributing to the abdication of philosophy in the face of the worst crimes against humanity [Oskar Kraus had called the good man Carnap (his wife Ina called him “angelface”) an instrument of evil]—the Vienna Circle should have shouted out that Nazis violate rationally based principles of justice and democracy; the Vienna Circle’s sometimes farcical battle against metaphysics created completely unnecessary enemies, leaving a mass of confusion in its wake.

III. Resuscitation of intuition. It turns out that all the unsavory accusations against intuition so often lodged by empiricists do not hold up; cf. my article “Resuscitation of Intuition”. Intuition is fully acceptable as evidence for norms, just as empirical data is for factual propositions. The list of sciences cleanly falls into two columns under the headings descriptive (factual) and prescriptive (normative). The ultimate “reason” for this fundamental dualism lies in the deep fact that psychology cannot avoid a two-factor explanatory model of behavior where stimuli are divided into those giving information about the environment (facts) and those giving information about goals (values). Both learning theory (= empirical psychology describing actual behavior) and decision theory (= normative psychology used for recommending correct or prudent behavior) rely essentially on two “orthogonal” information inputs. Philosophical monism of course wants to lump the two factors together; this can be witnessed in pragmatists like Dewey and Lewis who defend naturalism by claiming that ethics is empirical (Schlick and Neurath also tried this); associationist psychology tries the same thing, but fails in the sense that it too is forced to distinguish certain stimuli as functionally special motivators. This is a dishonest or ignorant hoax instinctively rejected by really knowledgeable scientists like Simon and Suppes: both of these highly experienced men—with absolutely impeccable empiricist credentials (!!!)—stoutly reject any attempt to make decision theory empirical; whereas Dewey and Lewis from an earlier period were not familiar with modern decision theory and its patently rationalist and non-empiricist nature. [Its principles, like those of logic and mathematics, are developed not by consulting empirical observations, but the rational intuition of experienced normative scientists, which is “orthogonal” to empirical observation. Bolzano and Frege were misguided in stating that logic is antipsychologist; what they really can say is that (normative) logic cannot be developed empirically.] The most important witness from the Vienna Circle in

favor of dualism is none other than Carnap, who came out of the closet in 1965 and openly abandoned empiricism [cf. my “Resuscitation”; this is also Salmon’s judgment of 1965; however, Carnap practised “closet dualism” all along with his distinction of analytic and synthetic; the monist Quine was right to object that Carnap, if he were an empiricist, ought to be an epistemological monist and reject the analytic–synthetic distinction]. The greatest “Kronzeuge” Chief witness who turns state’s evidence. of all with maximal empiricist credentials is Hume himself with his dictum against the naturalist fallacy: no Ought can ever be derived from an Is. All those who, like Simon and Suppes, really understand Hume’s dictum can never confuse normative with empirical theories. The restriction to empirical evidence is inadequate; any attempt to “extend” empirical evidence to that of rational intuition is a flagrant philosophical hoax because of the fundamentally different functional nature of factual and evaluative information in deliberations and decisions. Case closed.

IV. What to do now? What should friends of logical empiricism, friends of the Vienna Circle, friends of Otto Neurath do? Before anything else, I urge them to look more closely at their own label and consider its innate tendency. Logical empiricists had been strongly influenced by, even dominated by, mathematicians (mostly logicians) convinced that Mill’s attempt to merge mathematics (and logic) into empirical science was somehow deeply wrong. Despite all of the Vienna Circle’s diversity, this single conviction was strongly and uniformly held by all participants—with the single possible exception of Neurath, who probably would have agreed (or did agree?) with Quine’s rejection of the first of the “two dogmas of empiricism”. Since the notions of logicity and rationality have ever been commingled, it seems that, already with its very birth, logical empiricism made a crucial concession to rationalism. a) To be sure, the Vienna Circle fought a rear-guard battle for empiricism, officially keeping occult intuition off the books, but nevertheless giving logic pride of place as an independent factor underlying empirical knowledge next to empirical observation. b) To be sure, the Vienna Circle (including its most competent speakers in this area, both Carnap and Gödel) was embarrassed in failing to properly capture the exact difference between mathematics and empirical science. Nevertheless, it seems clear that the Vienna Circle as a whole conceded to rationalism a definite domain at least under the banner of analyticity and/or the a priori—however, without providing an adequate analysis of what this meant. Carnap in particular did this; and Neurath even made the concession, dreadful for empiricism, of strongly endorsing a “rationale Wirtschaftsbetrachtung”, despite his closeness to Quine.

V. Empiricist Rationalism. Hence my proposal is to simply push logical empiricism’s innate tendency toward rationalism further out of the closet by a) first acknowledging logic and mathematics as rationalist based on rational intuition; b) secondly extending the same grace to all other “rationality theories”, all the way to ethics (and aesthetics?—I’ll provide a full list, complete with borderline

definitions). The big debate is—now I go into full Neurathian propaganda mode—what label to use. “Rationalist empiricism” is unfair, since rationalism should be given at least equality with empiricism. “Rationalism-empiricism” seems awkward. “Empirio-Criticism” belongs to Avenarius (and is utterly monist) and “Critical” belongs to Popper. Empiricism itself owes heavy tribute to rationalism, considering its medieval roots in conceptualism (Ockham); indeed (as I pointed out in my “Gödels Platonismus”) that the empiricist criterion of meaning itself—i.e. Hume’s and Schlick’s insistence that, if only sufficient time and energy were expended to collect evidence, all meaningful questions must be answerable by some evidence—is in fact platonistic. Schlick once played with the label “rationalist”, and we may even claim that empiricism is simply a variety of rationalism, viz. one which emphasizes that not all knowledge is a priori. Every smart rationalist should accept Peircean fallibilism (à Neurath’s core principle of anti-absolutism!)—arguably a principal feature of Plato’s teaching! This is nothing other than the critical attitude essential for all philosophy and science, which fundamentally distinguishes these from (ordinary) religion. [Of course, on some definitions, science is also a religion, as Neurath was well aware.] If rationalists were smarter yet, they should even acknowledge that it’s irrational to discount empirical evidence—which Plato clumsily appeared to do with “Cave” scenario. The rationalist Newton (maybe Leibniz, too) argued that empirical evidence reveals God’s design and mere humans were consigned to humbly consult it for lack of superior calculating faculties; and Newton was fanatically interested in planetary and other data. If so, then “rationalism” alone ought to be enough. But just to keep apriorist hubris at bay, make sure by settling for “empirio-rationalism” or “empiricist rationalism”. I don’t completely like these terms, though. Please find a better one...

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