Matteo Motterlini
Università Vita-Salute San Raffaele

The Legacy of Paulus Empiricus

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Paul K. Feyerabend was a sceptical master and iconoclast about the philosophy of science. He denounced the break between the abstract, normative, philosophical accounts of science and the actual, complex and context-dependent scientific practice. Feyerabend’s first iconoclastic enterprise was directed against philosophical empiricism: roughly, the view that what is to be believed is what experiences establishes, and no more. In fact, Feyerabend’s line of attack is broad and applies to any foundationalist epistemology. A naïve appeal to experience assumes that what experience delivers is evident and unequivocal, and thus scientific theories can be grounded on independently meaningful observations. To Feyerabend, this view is at variance with actual scientific practice. Empiricism in the form in which is theorised by some Logical Empiricists philosophers cannot fulfil the hope of the progress of knowledge; on the contrary it is bound to lead to “a dogmatic petrifaction” of theories and “the establishment of a rigid metaphysics”. ¹

Against Method aimed at demystifying a second philosophical idol: the existence of a strictly binding system of rules for (good) scientific practice. ² Feyerabend observes the abyss that exists between the “real thing” and the various images of science by which we are possessed. The fine dividing line between the


practice of science and the epistemological “castles in the air” is in fact very similar to the line we draw between “normal” and “insane” people: a trait which recurs among the latter is the tendency to detach themselves further and further from reality. Normative philosophy of science that aims at general norms of the sciences are therefore a “hitherto unexamined form of mental illness”. Feyerabend’s therapy for philosophers’ schizophrenic detached from scientific reality is methodological anarchism.

Anything goes (perhaps paradoxically) is the only general principle to which the coherent rationalist can commit himself, if he is looking for a valid rule in any given historical situations. But at the same time, it is not a principle — at least in Feyerabend’s intention — since it is not introduced “to replace one set of general rules by another set”; rather “to convince the reader that all methodologies, even the most obvious one, have their own limits”. Scientific reality is always richer in content, more varied, more many-sided, more lively and subtle to be captured by the simple-mind rules of even the best philosopher or historian. Rules of “good science” taken as descriptions will not help the philosopher to understand science; and taken as prescriptions they will not help the scientist to do any better science either. Scientists are not rule-followers but opportunists. Not only Galileo developed a research program in striking contrast with the Aristotelian standards and the accepted observation of the time, he was also prepared to defend it. Feyerabend’s Galileo had to substitute a “natural” interpretation about motion (motion can only be expressed in terms of observable changes) with an “unnatural” and highly theoretical concept of motion which introduced into the phenomenon some components (such as the circular inertia, i.e. the motion that objects share with the Earth) that cannot be observed. In this way Galileo was able to “defuse a mine” placed under the Copernican system by “explaining away” the objection regarding the motion of the Earth. This move was possible, again, because of the theoretical nature of experience. That is, experience does not travel from the external worlds directly into our brains through the medium of our senses. On the contrary, our beliefs and our observations are closely connected. People see a phenomenon and interpret it in what they regard as a natural way according with their beliefs. So it is the interpretation of the phenomenon and not the phenomenon itself which is in contradiction with a given belief. Galileo then resolved the

3 Feyerabend, Against Method…, p. 23.
contradiction between the observation and the Copernican view by providing a new and highly abstract observational language and thus a newly constructed empirical basis. This, in turn, was a new theory of interpretation (containing the idea of the relativity of motion and the law of circular inertia) fitting to the Copernican system.  

The third idol demystified by Feyerabend was the unity of science. Years after the publication of Against Method, Feyerabend acknowledged that contemporary science exhibits disunity at the methodological and theoretical level, but also and especially at the experimental and laboratory level: “terms such as »experiment« and »observation« cover complex processes containing many strands”. Although unity of science is a regulative ideal favoured by philosophers, the so-called “scientific world view” is just the result of deception or wishful thinking. Feyerabend explicitly refers to the “path breaking” works of the new constructivist and empiricist philosophers — such as Ian Hacking, Nancy Cartwright, John Dupré, Andrew Pickering, Peter Galison — as a further articulation of his criticism to methodological monism. These works build on one basic consequence of Against Method, that is that “there can be many different kind of sciences”. The apparent achievements of science, Feyerabend argues, it is not a consequence of its allegedly systematic, unified and coherent nature. On the contrary, to be successful are the particular models and procedures within the specific disciplines, with their somewhat arbitrary compartments and their casual overlaps.

At the time of his death, Feyerabend was at work on the Conquest of Abundance, the subtitle (A Tale of Abstraction Versus the Richness of the Being) hints once again at the poverty of the “reality” produced by the effect of the abstraction brought by the scientific enterprise compared to the abundance, richness and boundless variety of the world around us. This unfinished book together Feyerabend’s fascinating autobiography, Killing Time show that Feyerabend was neither the worst enemy of science depicted by some of his commentators, nor

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4 See Feyerabend, Against Method..., pp. 55–85.
5 Feyerabend, Against Method..., p. xi.
6 Feyerabend, Against Method..., p. 2.
the irrationalist philosopher criticized by most of the profession. He was primarily a sceptic about the foundation of knowledge and a cunning rhetorician who knew how to use effectively all the ancient sceptical tropes. Against Method refers to Greek sceptics and many Pyrronian texts of Sextus Empiricus including “Against the Physicists. Against the Ethicists”, “Against the Logicians” and so on. It is thus not surprising to find out that Feyerabend used to entertaining Lakatos by signing some of his letters and postcards to him as “Paulus Empiricus — hinting of course at his Pyrronian predecessor. Scepticism to him was not only a powerful rhetorical devise but also well regarded in its normative implication for the practice of science and for the role of science in a “free society”. Feyerabend’s iconoclastic enterprise was neither against reason nor science. It was against the idea that there is some unique set of rules (whatever they are) to follow in order to produce good science (whatever it is). If anything goes, reason sometimes goes too. Feyerabend’s arguments are often to be intended as a reductio ad absurdum. In a reductio one assumes for the sake of argument the opponent’s position and then derives a conclusion unacceptable to that opponent. Far from a self-defeating scepticism, Feyerabend presented an impressive challenge to the received view in the philosophy of science. He argued that the elegant but useless epistemological accounts should be substitute by a detailed study of the scientific practices and of the primary sources in the history of science. In this respect, the legacy of Paulus Empiricus can be hardly overestimated.

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References


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