

Philosophical fairytales from Feyerabend

Paul Feyerabend: The tyranny of science. Cambridge UK & Malden MA: Polity Press, 2011, xii+153pp, £45 HB, £12.99 PB

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The Tyranny of Science is based on a series of lectures presented by Paul Feyerabend at the University of Trent in Italy in 1992, a little less than 2 years before his death in 1994. An earlier version of the book was published in Italian in 1996. It has now been published for the first time in English. The texts of the lectures appear with notes and bibliography, which have been added by the editor, Eric Oberheim. The book opens with a helpful introduction, also by the editor.

To a considerable extent, the book retains the character of a set of orally presented lectures. It is not overly encumbered by notes and references. There are some quotations. On occasion, Feyerabend simply quotes from memory. The editor's notes provide bibliographic detail for works that Feyerabend cites, as well as background information about people and events that he mentions. The style of presentation is informal. It is more akin to storytelling than sustained philosophical argument. As a result, the text is easy to read, though the argument is not always easy to identify. Each of the lectures is followed by an extensive question and answer session. Some of Feyerabend's answers take up several pages, often providing more detail than the lectures themselves. Both the style of presentation, and the question and answer sessions, will make this book accessible to a popular or non-specialist readership.

The subject matter of the lectures is broad ranging. The following summary of the topics dealt with in the lectures will provide a sense of their breadth of coverage, though such a selective sketch must pass over numerous details of Feyerabend's presentation. At the same time, the sketch may also serve to indicate the difficulty facing any attempt to identify a single, clear-cut line of argument running through the lectures. As we shall see in a moment, this may not be unintentional on Feyerabend's part.

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The first lecture explores disconnectedness within human affairs, as well as between the human and non-human world. The discussion ranges from recent evidence for the Big Bang, riots in Los Angeles and the war in Yugoslavia, to the rise of rationalism in pre-Socratic thought and related themes in Greek tragedy. In the second lecture, Feyerabend asks whether the success of science entails the acceptance of materialism, which he describes as the “house philosophy” of science (35). Drawing on a variety of historical examples, he argues that “our choice of world views remains open no matter how many successes a particular world view can throw in our face” (37–38). Neither materialism nor any other ideology is mandated by the success of science. In the third lecture, Feyerabend turns to the contrast between theory and experiment. He mentions the emerging focus on experiment in the work of Ian Hacking and Nancy Cartwright and then traces the traditional emphasis on theory back to the search for abstract principles in ancient myth and early Greek thought. The fourth lecture begins with the “chasm” between fact and value (92) and the question of the value-freedom of science. Feyerabend then turns to the emergence of sophistry as described in Plato’s *Euthydemus*, before arguing that undue concentration on the logical relations between ideas downplays the practical side of knowledge. He draws on Polanyi’s idea of tacit knowledge to emphasize the extent to which narrow concentration on theory has led philosophers to overlook the way in which knowledge is also constituted by practical elements (106).

In his introduction, Oberheim remarks that *The Tyranny of Science* is “not a systematic investigation. It is about the drawbacks of systematization” (xi). This points to an important feature of Feyerabend’s procedure in the book. Feyerabend states explicitly that he does not propose to give “a ‘systematic’ presentation” in the lectures (12). The reason is that such a presentation “removes ideas from the ground that made them grow and arranges them in an artificial pattern” (12). Rather than proceeding in a systematic manner, the lectures are “fairytales woven around events that are vaguely historical” (13). Feyerabend notes that he is “not a scholar”. But he then goes on to say “That does not really worry me for I have the suspicion that real scholars also tell fairytales...” (13).

What are we to make of this? At one point, Feyerabend seems to suggest that telling fairytales rather than making true assertions is all that we are capable of:

Hearing mere fairytales may not be your cup of tea – you may want to hear THE TRUTH. Well, if that’s what you want, then you are better off elsewhere – only for the life of me, I can’t tell you exactly where that would be. (13)

It is tempting to interpret such a remark as rejecting the possibility of genuinely assertoric discourse in favor of the narrative constitution of truth (or reality). On such a view, there is no factual discourse, only fictional storytelling. There is nothing but narrative, all the way down. I do not deny that Feyerabend’s words might be read this way. But I suspect that something more interesting is afoot.

Feyerabend’s rejection of a systematic mode of presentation reflects one of the main substantive themes of the book. His emphasis on the disconnection of events, the abstract nature of theory, and the tacit dimension of knowledge all relate to his rejection of a systematic presentation. At one point, Feyerabend explains why he

eschews a systematic approach: “we are living in a chaotic world and introducing a system into it means introducing an illusion” (54). In the discussion following the final lecture, he remarks that “a systematic account, far from making things clear, replaces the real world of thought and action by a chimera” (113). Thus, Feyerabend’s refusal to employ what he regards as a systematic approach in the presentation of his ideas stems from a deeper view about the nature of reality and the shortcomings of traditional scientific and philosophical approaches to the understanding of reality.

More specifically, Feyerabend is reacting against a tendency in traditional philosophy and science toward abstract theorizing. This tendency fosters a search for theories which reveal fundamental uniformities underlying the variety of observed events and phenomena. Against this tendency, Feyerabend juxtaposes a more fragmentary view of science and reality that places greater emphasis on the vagaries of practical experience. But he is not completely opposed to abstraction:

I would not frown on the abstract approach, I would only deny that the abstract approach gives you the essence of a field, as if people engaged in a concrete approach were stumbling around like blind men and women and only by chance they get the right result, while the abstract approach tells you what is really going on. (121)

Thus, rather than seeking to eliminate abstraction, Feyerabend suggests that abstraction be brought into balance with practice. Feyerabend opposes a conception of science as pure theory, which leaves no room for concrete practice or dismisses it as irrelevant to the nature of scientific knowledge. He urges that practice be granted due recognition.

In sum, Feyerabend’s fairytale technique arises from his rejection of systematic presentation and excessive abstraction. At the same time, as Oberheim notes, Feyerabend works many of his signature ideas into the lectures or else deals with questions relating to these ideas in discussion after the lectures. However, a number of subtle changes of position emerge in the present formulation of his views, which will be of interest to those familiar with Feyerabend’s earlier work.

In the early 1960s, Feyerabend argued for a principle of the proliferation of scientific theories on the basis that competition between conflicting theories would increase the testability of theories and thereby promote the advance of science. As mentioned earlier, Feyerabend holds that the scientific “house philosophy” of materialism is not forced on us by scientific results (35-8), since the success of science leaves open what world view to adopt. This openness is connected with the principle of proliferation. For in the same way that the success of science leaves open what world view to adopt, it may be rational for scientists to develop theories which conflict with established facts or theories (43). Even if an idea conflicts with experience or with widely accepted opinion or theory, Feyerabend argues, it may still be rational for a scientist to pursue and develop the idea. In time, even the most absurd ideas may lead to results and gain acceptance (42).

Thus, Feyerabend maintains the principle of proliferation in the context of a discussion of materialism. However, later in the book, he presents an apparent

qualification of the original thesis of proliferation. He says that the principle of proliferation is not “directed at scientists”:

In some of my earlier writings, I wanted to interfere in their activity and I said: you won't make discoveries unless you proliferate. Now I would say that the only interference that counts is interference by the people on the spot. Why? Because they know the details including the details that are not written down but reside in their experience. (126–127)

It may not immediately be clear how to reconcile the claim that the principle of proliferation is not directed at scientists with Feyerabend's apparent endorsement of the principle in the context of materialism. But perhaps the idea is that it may be rational for scientists to proceed in accordance with the principle of proliferation, even though philosophers of science who are outsiders should not interfere with science by encouraging the proliferation of hypotheses.

This change of heart brings to mind Feyerabend's own objections to Imre Lakatos. In *Against Method*, Feyerabend criticized Lakatos's reluctance to advise scientists on the basis of the methodology of scientific research programs (e.g. 1975, 186–187). Lakatos sought to develop an account of the rational adoption of research programs. But he did not wish to tell scientists to reject a degenerating program in favor of a progressive one. The problem with Feyerabend's endorsement of the principle of proliferation is that he wishes to say that, in some cases, it is rational to proliferate theories, but he does not wish to advise scientists to proliferate theories. Thus, Feyerabend's change of heart runs into the same difficulty as Lakatos's attempt to develop a normative conception of rationality, which does not have prescriptive force. For it says that a course of action is rational, but refrains from saying that one should perform the action which is said to be rational.

In the early 1970s, the principle of proliferation had evolved into Feyerabend's epistemological anarchist philosophy of science with its slogan “anything goes”. At this stage in his career, Feyerabend often expressed his ideas in exaggerated terms. But underlying the hyperbole were a number of sensible claims about scientific method. For example, Feyerabend sought to show that the rules of scientific method are neither invariant nor inviolable. He now revisits this idea within the context of the contrast between abstract ideas and concrete practice:

To judge theories a researcher needs abstract measuring instruments—methodological rules. Is it to be assumed that the same rules will be capable of judging all cases? That would be a very unrealistic assumption to make. You measure the temperature of a room by using a thermometer and the temperature of solar radiation by using a bolometer. Both are rather useless in ironworks—and so on. This means you have to adapt your methods to the case you are dealing with and have to invent new methods when new cases come along. This is what Einstein says—and here he is on the side of the practical people. Popper with his principle of falsification is on the side of the theoreticians: science is defined by its method and the method is falsification. But the number of scientists who collapse in front of a single big falsification is rather small and science would look very different if it were run by them

exclusively. So, whatever general rules there are, they fail if taken as a summary of scientific practice though they may work in particular scientific achievements. The best way is to take them as rules of thumb. (121)

The idea that the rules of scientific theory appraisal are defeasible is one of the central points that Feyerabend sought to make in proposing his anarchistic theory of method. Here, the idea is set within the context of his concern with excessive abstraction in traditional philosophy of science. Rejection of abstract rules of method in favor of adaptable rules of thumb is of a piece with Feyerabend's insistence that abstraction be tempered by the specifics of concrete practice.

In discussion, Feyerabend's questioners ask him to explain what he meant by 'anarchism', 'dadaism' and 'anything goes' (129–130). It is widely recognized that Feyerabend did not intend these formulations to be taken with complete seriousness. In *Science in a Free Society*, he said that 'anything goes' was "a jocular summary of the predicament of the rationalist" who insists on universal standards (1978, 188). Feyerabend now expresses a similar sentiment but with slightly different emphasis. The subtitle of *Against Method*, "Outline of an anarchistic theory of knowledge", was meant as a joke:

... what is anarchism? Disorder. What is theory? Order. Combining both is a Dadaist trick addressed to those anarchists who want to be anarchists and have a theory, too—an impossible undertaking. (129–130)

As for the slogan 'anything goes', this time Feyerabend is less prepared to renounce it. Instead, he presents the slogan as a plea for unconstrained imagination in the development of scientific ideas. "So, 'anything goes' means only 'don't restrict your imagination' because a very silly idea can lead to a very solid result" (130–131). As he now formulates the point, it seems that the subtitle of *Against Method* was the joke, but that the slogan 'anything goes' has something to be said for it.

As Feyerabend's remarks about proliferation and anarchism indicate, the book will be of interest to those with a specialist interest in the development of Feyerabend's views. But will it be of interest to anyone else? Will it make a contribution to contemporary philosophy of science?

Much water has passed under the bridge since the lectures in this book were presented. It would be unreasonable to expect the book to make a contribution to cutting edge research in the philosophy of science. However, if one approaches the book in its historical context, an engagement with significant developments in the philosophy of science *circa* 1990 is evident. This may be seen from Feyerabend's discussion of the traditional philosophical focus on theory at the expense of experiment. The emphasis on experimental science which is usually known as "the new experimentalism" has in subsequent years grown into an important area of research in the history and philosophy of science. On this issue, Feyerabend clearly had his finger on the pulse.

It is difficult to imagine that *The Tyranny of Science* will be anything like as controversial as *Against Method* was when it first came out. In large part, this is because many of Feyerabend's key themes are now commonplace. The idea that the

rules of scientific method are defeasible and are subject to change no longer seems as radical as it may once have done. Feyerabend's emphasis on practice rather than on theory resonates with research on scientific experiment. The diversity of the sciences is widely recognized and has fostered the expansion of the philosophy of specific sciences. Indeed, I suspect that Feyerabend's antipathy for abstraction and his sense of the diversity of the sciences would have made him sympathetic to the detailed work in the philosophy of specific sciences which has continued to build in the years since his death.

The *Tyranny of Science* is a significant contribution to the corpus of Feyerabend's published work. It will be met with interest and even enthusiasm by those with a prior engagement with Feyerabend's work. Because of its accessible style, it will provide an entry point for non-philosophers into Feyerabend's philosophy of science. But at the level of contemporary research in the philosophy of science, it is unlikely that the book will make much of a splash.

References

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