

## Lecture 4

### Views of Paul Feyerabend

Paul Feyerabend, in his classic, *Against Method: Outline of an Anarchistic Theory of Knowledge* (1975)<sup>1</sup>, repudiates the very idea of scientific method. Both on grounds of logic and history, he calls into question the time-honoured belief that there is something called the method of science which distinguished science from the rest of our cognitive activities. This traditional view, which is called by Feyerabend “law and order” philosophy of science, maintains that there are certain unchanging norms which determine scientific practice.

Though philosophers of science, as we have seen, differ in their account of what they consider to be the method(s) of science, all of them maintain that there are at least two conditions which ought to be met by any theory that is proposed for acceptance. These conditions can be called “consistency condition” and “correspondence condition”. According to the consistency condition, the new theory must be consistent with the already well established theories. According to the correspondence condition, the new theory must correspond to the well established facts. According to Feyerabend, both these conditions are illegitimate in the sense that their acceptance hinders the progress of science. By insisting upon the first condition, the traditional philosophers of science, both positivists and Popperian, overlooked the fact that the so-called well established theories may themselves be faulty. Their faulty character might come to surface only if we allow acceptance of the new theory provisionally. In other words, if a new theory is inconsistent with the existing theories which we believe to be extremely well supported, the fault may not necessarily be with the new theory, but with the latter whose serious limitations may become obvious to us only by adopting an alternative theory. That is to say, by insisting upon the consistency condition, we may be thwarting the chances of a very good theory and remain blind to the serious lacunae of the existing theories which we might miss only because we remain confined to these theories. However, we may never become aware of these new facts unless we transcend these theories and adopt an alternative just as we cannot become aware of all the defects of our society unless we look at it from the point of view of another society.

Similarly, the correspondence condition too cannot be sustained. By insisting upon the correspondence condition, the traditional philosophers of science overlooked the fact that the new theory might fail to correspond to facts because facts themselves may degenerate to the sense, they are interpreted consciously or otherwise in terms of a theory which is itself questionable and whose questionability we have not realized since our thinking has been constrained by it. Given the fact that all observations are theory-laden, it may be that what we consider to be observationally obvious might be absolutely wrong due to the incorrectness of the theory. Hence, Feyerabend says that a new theory must be allowed to grow, even if it goes against well-known facts.

It may be mentioned here that of the two conditions, the correspondence condition is more primary because the consistency condition can be reduced to it. For, the consistency condition says that a new theory must be consistent with existing theories if the latter are supported by facts. In other words, the consistency condition seeks to guarantee that a new theory corresponds with known facts by being consistent with

existing theories. By rejecting both the conditions, Feyerabend advocates that a new theory should not be constrained by the rule that it should first correspond with facts which we already know. In fact, Feyerabend says that we must make deliberate attempt to develop theories which go counter to the so-called known facts.

Feyerabend goes one step further. He challenges his traditional opponents by saying, ‘Give me any norm you like, I will show that it is violated at certain important phases in the history of science, not by oversight or negligence, but consciously and deliberately’. According to him, in the most productive periods of any science, scientists found themselves in situations which are too complex to be tackled by simple rules of thumb which philosophers of science glorify as methodological norms. Since science in its history has violated every possible norm, we must give up the very idea of the scientific method.

Does Feyerabend mean that our new theories should not have any empirical basis? No. All that he says is that we must not insist that our theories must have empirical basis the very moment they are generated. They must be allowed to develop their empirical basis instead of being nipped in the end for the sole reason that existing theories and known facts do not support them. In this connection, he discusses in detail the case of Galileo. We all know that Galileo sought to replace the geocentric theory of Ptolemy by the heliocentric theory of Copernicus. It must be mentioned that most of the known facts were in harmony with the Ptolemaic theory. Of course, there were many observations which *prima facie* were against the Ptolemaic theory. But, the followers of Ptolemy can yet to take care of such recalcitrant facts by making suitable adjustments in their theory. In sum, going by the well-established observations and known facts, the Ptolemaic theory had definitely an edge over the Copernican theory. Hence, Galileo rightly did not try to get support from already known facts for the Copernican view. Instead, he tried to come out with new observations using telescope. But, Galileo’s rival questioned the legitimacy of extending the use of telescope observations from terrestrial to the celestial sphere. Galileo, as we have seen, could have answered his opponents by propounding a theory of light which would justify telescopic observations. Galileo similarly required many such auxiliary theories to justify the new facts which he enlisted in support of the Copernican theory. Galileo’s rivals, on the one hand, were no doubt right in demanding them. But, on the other, Galileo was convinced that these auxiliary theories could be developed once the Copernican theory passes through on the basis of however slender and yet-to-be substantiated observational evidence so that the new theory could build for itself enormous amount of empirical basis in terms of new observations. Once the new theory stands on its own feet, the old observations and facts which were taken to support the Ptolemaic theory came to be interpreted in the light of the new theory. If Galileo had taken the correspondence condition seriously and endeavoured to enlist the support of the known facts, he would not have been able to bring about the revolution which he did. Thus, it is not that observations come first is the theory which subsequently develops an observational basis for itself. Marx recognizes this when he says, ‘Science, unlike other architects, builds not only castles in the air, but may construct separate habitable storey of the building before laying the foundation stone’<sup>2</sup>.

Since according to Feyerabend scientific practice at its best does not go by any set norms, we cannot discourage any theory which might go against the so-called well-

known facts. Calling himself an anarchist, Feyerabend vehemently argues that any approach or view, however bizarre and eccentric, has the right for continued existence. That is to say, a view which goes against the well-known facts has as initial justification as the view which is consistent with the known facts. Instead of killing a new theory just because it goes against known facts, we must allow it to grow or to die a natural death consequent upon its failure to build for itself an empirical basis. Thus, Feyerabend very effectively pleads for tolerance in the case of those theories which may not find support from what we already know.

It may be mentioned against Feyerabend that such a tolerance will lead to the mushroom growth of theories. Feyerabend accepts this consequence of his position as a positive feature. He strongly advocates proliferation of theories. Scientists who work in a certain domain must work with more than one theory since there is no norm which decides beforehand which one of the theories is more plausible. In other words, consistent with his rejection of the idea that there are set norms which guide scientific thinking. Feyerabend calls for pluralism in scientific practice. The idea of one theory at a time has no basis, once it is shown that scientific practice at its creative best has thrown to winds every conceivable norm.

Finally, like Kuhn, Feyerabend maintains that the relationship between successive theories in science is incommensurable. In fact, he provides new arguments in favour of the incommensurability thesis propounded by Kuhn.

To appreciate the novelty of Feyerabend's approach to scientific practice, we must juxtapose his views with those of positivists, Popper and Kuhn. First, as we have seen, both positivists and Popper maintain the thesis of methodological monism – there is only one method for science irrespective of its subject matter. Since this method is supposed to be adopted well by natural sciences, social sciences are advised to follow natural sciences. Even Kuhn implicitly maintains that social sciences can achieve progress only by following natural sciences whose distinctive mark, according to him, is their success in developing a normal tradition. Against the methodological monism, many social scientists argue that social sciences need to have a method different from that of natural sciences thanks to the peculiar subject matter of their study. Thus, an influential school of thought which went by the name of Verstehen School that dominated social sciences, in general, and, German scene of social sciences, in particular maintain what is called methodological dualism. The Verstehen School contended that the aim of natural sciences was “explanation” and that of social sciences “understanding”, with the result their methods radically differ from each other. However, the Verstehen School conceded to its opponents that there is something called the method of natural sciences. Feyerabend's rejection of methodological monism is more radical than that of methodological dualists since he repudiates the very idea that there is something called “the” method in natural sciences. According to Feyerabend's methodological pluralism, neither natural sciences nor social sciences have “one” method.

Secondly, by pleading for proliferation of theories and the need for pluralism, Feyerabend stands against Kuhn who virtually celebrates that fact that in natural sciences there is a qualitatively greater consensus than in social sciences. According to Feyerabend, even if Kuhn is right in his description of the actual scientific practice, he is not justified in thinking that the monolithic state of affairs is the ideal. In other

words, rejecting Kuhn's idea of paradigmatic stage as the ultimate phase of scientific evolution, Feyerabend advocates the need for post-paradigmatic stage in which scientific practice is characterized by plurality.

Finally, let us put it thus: positivists, Popper and Kuhn in different ways sought to show how science is unique. Whereas according to positivists, the uniqueness of science among our various types of cognitive activities like commonsense, art, religion, etc. consists in the systematic verifiability of scientific claims, according to Popper, systematic falsifiability of scientific claims, and it is consensus, according to Kuhn. All the three sought to draw a line of demarcation between science and non-science, and by doing so, presented science as a type of knowledge-seeking activity which is not only unique in itself but also as exemplifying an ideal which the other modes of cognizing the world must emulate. Feyerabend repudiates the possibility of drawing a line of demarcation between science and non-science. This does not imply that according to him there is no difference between science and, say, religion or art. He only maintains that such a line of demarcation keeps shifting with the result, the line is no absolute and logical but relative (to an age) and historical. By construing the line of demarcation between science and non-science in totally contingent terms, Feyerabend seeks to strip science of its uniqueness and in the same breadth nullifies its alleged idealhood. According to Feyerabend, the idea that science is unique is based on the myth that it is equipped with a method constituted by certain norms scrupulously adhered to in all ages. Once this myth stands exploded, science can no longer occupy the citadel it has been placed upon by contemporary culture.

The **basic thrust** of this whole discussion is to foreground the various issues which philosophers, historians and sociologists of science are grappling within their attempt to understand the methods of science as a cognitive enterprise. It may be mentioned in this connection that social scientists usually work with some conception of science and its method. Since such a conception very much informs their work, it is necessary that they should free themselves from received notions and naïve ideas about science presented by textbooks and deeply entrenched in popular psyche. All that this discussion has sought to achieve is to hammer the point that the pattern of scientific thinking is too complex to be captured by a catalogue of thumb rules pompously presented as the principles of scientific method.

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## Notes and References

<sup>1</sup> See Paul Feyerabend, *Against Method: Outline of an Anarchistic Theory of Knowledge*, Verso, London, 1975

<sup>2</sup> Karl Marx, *A Contribution to a Critique of Political Economy*, Progress Publishers, Moscow, 1970, p. 57