

# Chapter 10

## Against Method, Against Science? On Logic, Order, and Analogy in the Sciences

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### ABSTRACT

*This chapter will focus on two questions, first, the question of Feyerabend's use of analogy, in *Against Method*, in order to give an account of science, scientific research, and/or scientific institutions in terms of fairy tales; second, it will focus on the question of whether the analogy holds up to critical scrutiny. Feyerabend uses "fairy tale" in a number of senses in *Against Method*; for example, he uses it to capture some misleading indeed erroneous views about methodology; he insists that the truth is at odds with the fairy tale and that the truth is that "all methodologies have their limits" (1980, p. 32); he takes it to mean not just an erroneous narrative but an erroneous or at the very least, questionable, narrative, which is promoted as true; he uses it in at least three other senses in the book. This chapter will then offer a detailed critique of the use of such analogies in *Against Method* in order to clarify the strengths and weaknesses of Feyerabend's argument.*

### INTRODUCTION: AGAINST METHOD AND THE QUESTION OF SCIENCE AND FAIRY TALES

This chapter will focus on two questions, first, the question of Feyerabend's use of analogy, in *Against Method*, in order to give an account of science, scientific research and/or scientific institutions in terms of fairy tales; second, it will focus on the question of whether the analogy holds up to critical scrutiny. If it does, then Feyerabend's position is strengthened; if it does not, then Feyerabend's analysis is weakened, or needs further evidence and/or justification.

Feyerabend uses "fairy tale" in at least five important senses in *Against Method*. First, he uses it to capture some misleading indeed erroneous views about methodology; he insists that the truth is at odds

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with the “fairy tale” and that the truth is that “all methodologies have their limits” (1980, p.32). Second, “fairy tale” means not just an erroneous narrative but an erroneous or at the very least, questionable, narrative, which is promoted as true. Third, he sometimes uses “fairy tale” in order to undermine a dogmatic insistence on the enduring truth of a theory: for example, he claims that today’s scientific theory can become tomorrow’s “fairy tale” (1980, p.52) and vice versa (see 1980, p.209). Fourth, he clearly believes that fairy tales do not just deceive and seduce, they can tell us important things: for example that “a conflict between reason and the preconditions of progress is *possible*” (1980, p. 156). Fifth, he often uses it to signify a false, distorted or simplistic view of science, scientific research and scientific institutions. It is this fifth kind of usage, in particular, that will be the focal point of the following discussion. The objective will be to offer a logical critique of this kind of usage in his book.

## **BACKGROUND (AND LITERATURE REVIEW)**

Much has been written about *Against Method* but there has been relatively little research first on the use of analogy in the book and second, on the extent to which these analogies are convincing. This chapter will focus on both areas. “Analogy” will be understood conventionally, in a logical sense, as a likeness or a similarity between two or more things. “Science” will be understood conventionally also in the sense of a discipline that seeks to produce hypotheses which when tested empirically lead to theories, which in turn produce effective explanations of phenomena and allow us to make successful predictions, which in turn can be tested empirically also. It is acknowledged that there are other possible definitions of science, for example, Kuhn’s emphasis on the production of paradigms or Popper’s emphasis on methods of falsification (see for example Kuhn 2000, 1977, 1962 and 1957, among others, and Popper, 1959, 1963, 1966, 1972, 1982, 1983, 1987, 1992 and 1994B, among many others, for discussions of falsification, realism, objective knowledge and rationality in the sciences).

Though many have written on *Against Method*, very few have looked closely at the function and meaning of the fairy tale analogies in the book. For example, Joseph Agassi (2014) focusses on Feyerabend’s critique of Popper; Eric Oberheim (2012) focusses on Feyerabend’s philosophical pluralism; Juha Manninen and Friedrich Stadler (2010) include some research on Feyerabend and Wittgenstein, “realism” and “psychologism”; David Munchin (2011) explores the question of whether theology is a science, with reference to the work of Feyerabend; Craig Dilworth (2007) focusses on the question of incommensurability and theory change; Peter Godfrey-Smith (2003) explores the question of frameworks in Feyerabend’s work; Robert Nola (2003) focusses on a critique of anti-rationalism and Nola and Howard Sankey (2000) focus on the question of scientific method, its meaning and value; John Preston, Gonzalo Munévar and David Lamb (2000) focus on the question of whether Feyerabend is the worst enemy of science; Munévar (1998) explores the connection between Feyerabend’s work and the question of a free society; David Stove (1998 and 1982) offers a sustained critique of irrationalism in modern science; Imre Lakatos (1999) offers a critique of *Against Method* and anarchism and broader reflections on the sciences in 1978a, 1978B, 1976 and 1968, with Feyerabend, 1999A and 1999B, and with Musgrave in 1970 and 1968; John Preston (1997) examines “epistemological anarchism”, cultural relativism and the question of method; W. Martin Davies (1996) offers a critical reflection on experience and science; Barry Gower (1996) explores critiques of scientific method; Gunnar Andersson (1994) explores critiques of critical rationalism; Gonzalo Munévar (1991 and 1981) focusses on the use and misuse of reason in *Against Method*, and in his earlier work on the limits of science; George Couvalis (1989) explores the

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