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ARTYKUŁ ORYGINALNY / ORIGINAL ARTICLE

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What is Epistemological Anarchism?

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Abstract: Epistemological anarchism is a methodological fallibilism, i.e. an approach according to which all scientific knowledge is not only provisional, but so are the methods of acquiring it. It is a belief that we are doomed to a provisional character of knowledge, yet the guide to this provisionality is a selected methodology. This conviction is contrasted with the belief that not only are we doomed to a provisional character of knowledge, but that we have no *permanent* guide to this provisional knowledge.

Keywords:

Against Method; anything goes; epistemological anarchism; methodological fallibilism

1. Preliminary remarks

In addition to the introduction, this article consists of three sections and the conclusion. In section two, the first element of Paul K. Feyerabend's epistemological anarchism is presented — his account of scientific theories as worldviews. In section three, the general presuppositions of Feyerabend's anarchism are discussed, i.e. those of his beliefs found in all editions of his *Opus magnum*. And in the fourth section, the most important in this article, a specific interpretation of his anarchist approach to knowledge, based mainly on his own statements, is presented.



2. Weltanschauungen analyses

Distinguishing between the two basic periods of Feyerabend's work: the moderate (early) and the anarchist (late) one, ¹ can be found in the vast majority of studies devoted to his work. ² The two periods are linked above all by the tremendous emphasis on history and the blurring distinction between the context of discovery and the context of justification.

The philosophy of science propagated by Feyerabend, both during the moderate (from 1962 onwards)³ and the anarchist periods, falls within an approach

The use of the terms "early" and "late" Feyerabend, despite the fact that the American philosopher classified himself in this way, is misleading insofar as it focuses attention on time rather than on the views themselves. Interpreting someone's work involves, among other things, a search for turning points that allow one to see the differences between views separated by more than just some period of time. Much better suited to such a search, with significant differences in the views of the American philosopher pinpointed, is the nomenclature proposed by Kazimierz Jodkowski: the moderate and anarchist period. See Kazimierz Jopkowski, "Filozofia nauki Paula K. Feyerabenda. Stadium umiarkowane", *Studia Filozoficzne* 1979, Nr 11, s. 59 [59–75].

³ Historical considerations appear in Feyerabend's paper "Explanation, Reduction and Emipiricism". As late as 1960, in his first letter to Kuhn, he argued that "history is irrelevant to methodology" (Paul K. FEYERABEND, "Two Letters of Paul Feyerabend to Thomas Kuhn on a Draft to **The Structure of Scientific Revolutions**", Paul Hoyningen-Huene (ed.), *Studies in History and Philosophy of Science* 1995, Vol. 26, No. 3, p. 366 [353–387], see also p. 367). See also Paul K. FEYERABEND, "Concluding Unphilosophical Conversation", in: Gonzalo MUNÉVAR (ed.), **Beyond Reason: Essays on the Philosophy of Paul K. Feyerabend**, *Boston Studies in the Philosophy of Science*, Vol. 132, Kluwer Academic Publishers, Dordrecht — Boston — London 1991, s. 506 [487–528]; Paul K. FEYERABEND, **Sci-**

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¹ The moderate period begins with a brief encounter with logical empiricism. It is followed by a critique aimed at positivist philosophy. This critique evolves into the constructive stage in which his own counter-methodology is suggested, a variant of critical rationalism (for discussion, see Eric OBERHEIM, **Feyerabend's Philosophy**, "Quellen und Studien zur Philosophie", Bd. 73, Walter de Gruyter, Berlin — New York 2006, pp. 4–5, 77–122) aimed at the positivist approach. The anarchist period represents a break with all (including his own) attempts to create a constructive methodology and challenges the assumption of the existence of a form of rationality characteristic of science that allows it to be clearly distinguished from other forms of human cultural activity.

² See e.g., John PRESTON, **Feyerabend: Philosophy, Science and Society**, Polity Press, Cambridge — Malden 1997, p. 7. Incidentally, Feyerabend seemed to accept this division of his philosophy: "He [Richard M. Burian] didn't like the early PKF for being too rational, and he doesn't like the late PKF for being too irrational". Feyerabend's letter to Lakatos, dated 25 July 1969, in: Imre Lakatos, Paul K. Feyerabend, For and Against Method: Including Lakatos s Lectures on Scientific Method and the Lakatos-Feyerabend Correspondence, Matteo Motterlini (ed.), The University of Chicago Press, Chicago — London 1999, p. 169.) For discussion, see OberHeim, Feyerabend's Philosophy..., pp. 15–16, 262–283.

known as: "a »revolutionary« philosophy of science", ⁴ "a new philosophy of science", ⁵ "postmodernism", ⁶ "post-empiricism", ⁷ "new empiricism", ⁸ "postpositivism", ⁹ "historicist philosophy of science". ¹⁰ Feyerabend preferred the term "historical approach" to describe this approach to science. ¹¹ One of the hallmarks of the historical philosophy of science is the extensive historical analyses of episodes in the history of science. The other is the conviction that analyses from the field of the context of discovery should not be ignored and that historically variable factors shaping the development of science should not be removed from the field of the study of science. Both of these elements can easily be found in Feyerabend's writings following 1962. ¹²

⁴ See John McEvov, "A »Revolutionary« Philosophy of Science: Feyerabend and the Degeneration of Critical Rationalism into Sceptical Fallibilism", *Philosophy of Science* 1975, Vol. 42, No. 1, pp. 50–51 [49–66].

⁵ See e.g., Kazimierz Jodkowski, "Polskie wydanie rozpraw Feyerabenda", *Studia Filozoficzne* 1981, nr 2 (183), p. 161 [159–169]; Agustín Adúriz-Bravo, "Methodology and Politics. A Proposal to Teach the Structuring Ideas of the Philosophy of Science through the Pendulum", *Science & Educa-tion* 2004, Vol. 13, p. 721 [717–731].

⁶ See e.g., Adúriz-Bravo, "Methodology and Politics...", p. 721.

⁷ See e.g., Stephan Fuchs, "Metatheory and the Sociology of Sociology", *Sociological Perspectives* 1992, Vol. 35, No. 3, p. 533 [531–535].

⁸ See e.g., George GALE and Edward WALTER, "Kordig and the Theory-Ladenness of Observation", *Philosophy of Science* 1973, Vol. 40, No. 3, p. 415 [415–432].

⁹ See Ernan McMullin, "Review of Science, Revolution, and Discontinuity", *Isis* 1983, Vol. 74, No. 4, p. 577 [577–579].

¹⁰ See e.g., Thomas Nickles, "Historicist Theories of Scientific Rationality", in: Edward N. Zalta (ed.), **The Stanford Encyclopedia of Philosophy**, Spring 2021 Edition, https://tiny.pl/czp6f (27.01.2024).

¹¹ See Paul K. FEYERABEND, Farewell to Reason, Verso, London, New York 1996, p. 265.

¹² As an advocate of the historical approach to the philosophy of science, Feyerabend repeatedly stressed the links between methodology and history and research practice, but in the moderate period of his work he was – and this clearly distinguishes the two periods of his work — also an advocate of "the primacy of method over history" (Paul K. FEYERABEND, **Science in a Free Society**, Verso,



ence in a Free Society, Verso, London 1983, p. 117, n. 49; Paul K. FEYERABEND, Against Method: Revised Edition, Verso, London — New York 1988, p. 230; Paul K. FEYERABEND, "More Clothes from the Emperor's Bargain Basement. A Review of Laudan's. Progress and its Problems" (1981), in: Paul K. FEYERABEND, Philosophical Papers. Vol. 1. Realism, Rationalism & Scientific Method, Cambridge University Press, Cambridge — New York — Port Chester, Melbourne — Sydney 1981, p. 238, n. 19 [231–246]; Paul K. FEYERABEND, Killing Time, University of Chicago Press, Chicago and London 1995, p. 141.

Still the most accurate name for this approach, which treated scientific theories and the practice of science as part of a broader whole determining certain types of questions and criteria for acceptable answers to the former, was put forward by Frederick Suppe, who dubbed it "Weltanschauungen analyses": ¹³

[S]cience is done from within a *Weltanschauung* or *Lebenswelt*, and the job of philosophy of science is to analyze what is characteristic of scientific *Weltanschauungen*, what is characteristic of the linguistic-conceptual systems from within which science works. Theories are interpreted in terms of the *Weltanschauung*; hence to understand theories it is necessary to understand the *Weltanschauung*. Such a *Weltanschauungen* approach to analyzing the epistemology of science obviously must pay considerable attention to the history of science and the sociological factors influencing the development, articulation, employment, and acceptance or rejection of *Weltanschauungen* in science.¹⁴

Science is seen here as a social undertaking that cannot be fathomed by analysing merely the context of justification. Proper understanding of science is possible after taking into account the metaphysical and methodological views that co-create it, the active role of language in its practice, the interactions of a social and psychological nature. According to this approach, evaluations and methodological decisions, and the content of newly developed scientific assertions do not depend solely on facts and logic, observation and careful thinking. ¹⁵ Theories do not arise in an intellectual vacuum; the growth of knowledge is shaped by factors such as: the influence of different traditions of doing science on the formation of different beliefs and prejudices of scholars participating in different traditions; motives of an aesthetic, metaphysical and volitional nature allowing a scholar to insist on their chosen — against the facts and well-validated theories — path of inquiry; acquiring by scholars of certain character traits, such as susceptibility (or its lack) to a certain type of suggestion. ¹⁶

London 1983, p. 160, n. 17).

¹³ Frederick Suppe, "Search for Philosophic Understanding of Scientific Theories", in: Frederick Suppe (ed.), **The Structure of Scientific Theories**, University of Illinois Press, Urbana — Chicago — London 1977, p. 125 [1–241].

¹⁴ SUPPE, "Search for Philosophic Understanding of Scientific Theories...", pp. 126–127.

¹⁵ See e.g., Paul K. FEYERABEND, "Problems of Empiricism", in: Robert G. COLODNY (ed.), **Beyond the Edge of Certainty: Essays in Contemporary Science and Philosophy**, Prentice-Hall, Englewood Cliffs, New Jersey 1965, p. 152–153 [145–260].

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According to Feyerabend, the way of seeing the world depends on the previously accepted theory. ¹⁷ General theories have their own ontologies and they are worldviews. "To understand a theory — Suppe concludes — was to understand its use and development". ¹⁸

3. General assumptions and goals of epistemological anarchism

Four editions of Feyerabend's *Opus magnum*¹⁹ were published during his lifetime, which in many respects differ from each other.²⁰ However, it is possible to

¹⁷ See e.g., Paul K. FEYERABEND, "An Attempt at a Realistic...", p. 31 [17–36]; FEYERABEND, "How to be...", pp. 97–98; FEYERABEND, "Problems of Empiricism...", p. 181; Feyerabend's letter to Lakatos, dated 10 March 1970, in: Lakatos and FEYERABEND, For and Against Method..., pp. 194–195; FEYERABEND, "Against Method..." (1970), p. 90; FEYERABEND, Against Method... 1975, p. 284; Paul K. FEYERABEND, "Reply to Criticism...", p. 126 [104–131].

¹⁸ SUPPE, "Search for Understanding of Scientific Theories...", p. 126.

¹⁹ 1970 — a very comprehensive article and in 1975, 1988 and 1993 three different editions of the book. The fourth edition marked as "New Edition" was published in 2010, but it is, in fact, virtually identical to the third (1993) edition.

²⁰ A thorough discussion of these differences far exceeds the aims of this paper. Overall, the 1970 edition is an attempt at a dialectical explanation of the process of the development of science. In this edition, Feyerabend refers to both Hegel and the classics of Marxism. He seeks support for his theses in source material from the history of ideas, philosophy, politics (this abundance of political material reflected Feyerabend's belief in the fundamental similarity between social revolutions and revolutions in science) and science. The 1975 edition, as part of a book planned with Imre Lakatos,



¹⁶ See e.g., Paul K. FEYERABEND, "Explanation, Reduction and Empiricism" (1962), pp. 59–60 [44–96]; Paul K. FEYERABEND, "How to be a Good Empiricist: A Plea for Tolerance in Matters Epistemological" (1963), in: Paul K. FEYERABEND, Philosophical Papers. Vol. 3. Knowledge, Science and Relativism, John Preston (ed.), Cambridge University Press, Cambridge — New York — Melbourne — Madrid — Cape Town — Singapore — São Paulo 2008, p. 81, n. 4 [78–103]; Paul K. FEYERABEND, "Realism and Instrumentalism...", p. 196 [176–202]; FEYERABEND, "Problems of Empiricism...", p. 219, n. 5, pp. 219–220, n. 8, p. 224, n. 9; Paul K. FEYERABEND, "Consolations for the Specialist" (1970), in: Paul K. FEYERABEND, Philosophical Papers. Vol. 2. Problems of Empiricism, Cambridge University Press, Cambridge — New York — Port Chester — Melbourne — Sydney 1981, p. 160 [131–167]; Paul K. FEYERABEND, "Against Method. Outline of an Anarchistic Theory of Knowledge", in: Michael RaDNER and Stephen WINOKUR (eds.), Analyses of Theories and Methods of Physics and Psychology, Minnesota Studies in the Philosophy of Science, Vol. 4, University of Minnesota Press, Minneapolis 1970, p. 90 [17–130]; Paul K. FEYERABEND, Against Method: Outline of an Anarchistic Theory of Knowledge, New Left Books, London 1975, pp. 284–285; FEYERABEND, Against Method... (1988), p. 226.

distinguish a number of elements in them that are common to all editions of Against Method.²¹

Feyerabend permanently supported the thesis that all methodologies include cosmological presuppositions. ²² He thus based his anarchist methodology on the following assumption:

People and nature are very whimsical entities which cannot be conquered and understood if one decides to restrict oneself in advance. ²³

This assumption was followed by the following methodological assumption:

[Epistemological] anarchism is not only possible, it is necessary both for the internal progress of science and for the development of our culture as a whole [...] [because]

²¹ In the first known surviving letter of the correspondence between Feyerabend and Lakatos, dated 17 Dec. 1967, Feyerabend explained where the idea for such a title for his work came from: "the title will be »Against Method« (this in analogy to Susan Sontag's »Against Interpretation«)", LAKATOS and FEYERABEND, For and Against Method..., p. 125.

²² See e.g., Paul K. FEYERABEND, "On the Critique of Scientific Reason", in: Robert S. COHEN, Paul K. FEYERABEND, Marx W. WARTOFSKY, **Essays in Memory of Imre Lakatos**, *Boston Studies in the Philosophy of Science*, Vol. 39, D. Reidel Publishing Company, Dordrecht, Holland 1976, p. 138, n. 30a [109–143]; Paul K. FEYERABEND, "The Methodology of Scientific Research Programmes", p. 212, n. 18 [202–230]; FEYERABEND, "Against Method..." (1970), pp. 44–45; FEYERABEND, **Against Method...** (1975), p. 67; FEYERABEND, **Science in a Free Society...**, p. 34; Feyerabend, **Against Method...** (1988), p. 53; Paul K. FEYERABEND, **Against Method: Third Edition**, Verso, London 1993, p. 52; Paul K. FEYERABEND, "Professor Bohm's Philosophy of Nature", pp. 227–228 [219–235]; FEYERABEND, "Problems of Empiricism...", p. 216; FEYERABEND, "An Attempt at a Realistic Interpretation...", pp. 35–36; Paul K. FEYERABEND, "The Problem of the Existence of Theoretical Entities", pp. 19, 46, 49 [16–49]; FEYERABEND, "Explanation, Reduction...", pp. 52–53; Paul K. FEYERABEND, "On the »Meaning« of Scientific Terms", pp. 98–99 [97–103]; FEYERABEND, **Farewell to Reason**..., p. 8; Paul K. FEYERABEND, "Rationalism, Relativism and Scientific Method", pp. 201–203 [200–211]; Paul K. FEYERABEND, "Introduction to Volumes 1 and 2", pp. IX–X [IX–XIV].

²³ Paul K. FEYERABEND, "Theses on Anarchism", p. 116 [113–118]. "The world, including the world of science, is a complex and scattered entity that cannot be captured by theories and simple rules" (FEYERABEND, Killing Time..., p. 142).

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For and Against Method, is written in a much more provocative style than the 1970 essay. The material with which Feyerabend supports the defended theses also changes there: "All the political material my article contained has been omitted, and has been replaced by more material from science and the history of science", Feyerabend wrote in 1975 in a letter to Kazimierz Jodkowski. The 1988 edition is an attempt to formulate his own philosophical position, taking into account the views presented in Science in a Free Society, based on epistemological relativism (see Against Method... 1988, p. 230), while the 1993 edition is an attempt to reinterpret Against Method in the light of the views presented in Feyerabend's Farewell to Reason.

anarchism helps to achieve progress in anyone of the senses one cares to choose. ²⁴

Anarchism makes it possible to achieve progress understood in this way, ²⁵ as it always allows such methods as are necessary to achieve the assumed goal in a particular situation.

Two epistemological assumptions made by Feyerabend, which support the above methodological assumption, should also be mentioned at this point. According to the first, science is not the only effective way of acquiring knowledge:

Nor is there one way of knowing, science; there are many such ways, and before they were ruined by Western civilization, they were effective in the sense that they kept people alive and made their existence comprehensible. 26

According to the other, what is called science is not an ordered system of noncontradictory assertions:

Science itself has conflicting parts with different strategies, results, metaphysical embroideries. It is a collage, not a system. ²⁷

Feyerabend admitted that he wrote "essays which upset people", ²⁸ as "there is more to this »anarchism« than rhetoric". ²⁹ That epistemological anarchism is more than rhetoric is evident from the goals he set for his undertaking:

²⁶ FEYERABEND, **Killing Time...**, p. 143. See also FEYERABEND, **Against Method...** (1975), pp. 180, 217, 296, 298–299; FEYERABEND, **Against Method...** (1988), pp. 3, 37, 169, 170, 256, 257–258, 260–261; FEYERABEND, **Against Method...** (1993), pp. 3, 160, 163, 214, 229, 238, 246.

²⁷ Feyerabend, **Killing Time...**, p. 143. See also FEYERABEND, "Against Method..." (1970), pp. 20, 24, 42, 80–81; Feyerabend, **Against Method...** (1975), pp.19, 23, p. 24, n. 1, pp. 46, 64, 68, 146, 179–180; FEYERABEND, **Against Method...** (1988), pp. 11, 15, n. 1, pp. 49, 53–54, 59, 111, 121, 153, 156, 164, 205, 249–250; FEYERABEND, **Against Method...** (1993), pp. x–xi, 11, 15, n. 1, pp. 49, 148, 157–158, 160, 196, 207, 231–232, 249.

²⁸ See Joachim JUNG, "Paul K. Feyerabend. Last Interview", in: John PRESTON, Gonzalo MUNÉVAR, David LAMB (eds.), **The Worst Enemy of Science? Essays in Memory of Paul Feyerabend**, Oxford University Press, New York, Oxford 2000, p. 165 [159–168].



²⁴ FEYERABEND, **Against Method...** (1975), p. 180 and p. 27. See also FEYERABEND, **Against Method...** (1975), pp. 37, 171, 175, 180; FEYERABEND, "Against Method..." (1970), pp. 17, 21, 76; FEYERABEND, **Against Method...** (1988), pp. 9, 14, 19, 32, 33, 160, 164, 249; FEYERABEND, **Against Method...** (1993), pp. 9, 18, 159, 231; FEYERABEND, **Science in a Free...**, p. 142.

²⁵ During the moderate period, he conceived of progress as moving, according to very simple methodological rules (see Feyerabend, "Problems of Empiricism...", p. 217), to theories that were inconsistent with previous theories (see Feyerabend, "Problems of Empiricism...", p. 172).

Anger at the wanton destruction of cultural achievements from which we all could have learned, at the conceited assurance with which some intellectuals interfere with the lives of people, and contempt for the treacly phrases they use to embellish their misdeeds was and still is the motive force behind my work. ³⁰

It is worth pausing on this objective for a moment, since with it another general assumption underlying Feyerabend's anarchism comes to the fore, concerning how societies develop. This development, in his view, is achieved through competing (conflicting) cultures:

nations, kingdoms, and tribes were often at war with each other but they exchanged materials, languages, industries, styles, people with special skills such as architects, navigators, prostitutes — and even gods [...].³¹

and cultural exchange:

The participants [of a given tradition] get immersed into each others' ways of thinking, feeling, perceiving to such an extent that their ideas, perceptions, world views may be entirely changed — they become different people participating in a new and different tradition. 32

Returning now to Feyerabend's aims in pursuing his objective, he wanted to show that the philosophical conviction that there is a monolith called science, which is cemented by the concept of truth, is erroneous. ³³ He also sought to show that there is no such definition of science that is able to encompass all the trans-

²⁹ FEYERABEND, **Killing Time...**, p. 142.

³⁰ FEYERABEND, **Against Method...** (1988), p. 272; FEYERABEND, **Against Method...** (1993), p. 252. See also FEYERABEND "Against Method..." (1970), p. 111, n. 49; FEYERABEND, **Against Method...** (1975), p. 188, FEYERABEND, **Science in a Free Society...**, p. 136.

³¹ Feyerabend, Farewell to Reason..., pp. 6–7.

³² FEYERABEND, **Science in a Free Society...**, p. 9; FEYERABEND, **Against Method...** (1988), p. 246. I have presented here a highly simplified picture of Feyerabend's theory of social exchange, which does not take into account his change of view that occurred between **Science in a Free Society** (see e.g., p. 83, see also FEYERABEND "Against Method..." (1970), p. 108, n. 46) and **Farewell to Reason** (see e.g., p. 40). He later replaced his earlier conviction that unfamiliar social views and practices should be developed regardless of the possible consequences of such actions with the thesis that they should only be introduced when existing problem-solving strategies have failed (see e.g., FEYERABEND, "Concluding Unphilosophical...", p. 519). Initially (**Science in a Free Society**), Feyerabend wanted to extend Mill's liberalism by advocating, not, like Mill, allowing freedom in societies mature enough, but rather making freedom a condition of maturity. Later (**Farewell to Reason**), returning to Mill's approach, he restricted equal rights for all traditions to democratic societies.

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formations that science undergoes. ³⁴ He also argued that traditional philosophical accounts of both scientific knowledge and scientific method are wrong as scientists do not act rationally, in the sense that philosophers of science attribute to the term. ³⁵ The latter limit rationality to some clearly articulated and supra-historical set of rules that must always be followed. ³⁶ The conduct of scholars/researchers who ignore such rules is neither arbitrary nor unsystematic. It can only be regarded as such in the perspective of rationalist standards. ³⁷

It was for this reason in **Against Method** he comes out against mainly those philosophers who urged reconstructions of what scientists actually said and did, for the latter, in the opinion of philosophers of science, did not do so clearly enough. The essential aim of the philosophy of science was therefore to offer such rational reconstructions. His book, he stated, primarily attacks the philosophy of science conceived as a method of making sense of the complex issues that scholars/researchers talk about. ³⁸

He also wanted to demonstrate in **Against Method** that the methodological principles presented not only by philosophers of science but, more importantly, by scholars/researchers themselves, are always violated when some scientific breakthrough occurs. The absence of such immutable principles does not prove that "science is [...] »irrational«; every single step can be accounted for". ³⁹ The steps of scholars can be explained, that is to say, why they have acted in this way and not in that way. ⁴⁰

³⁷ See Feyerabend, "Concluding Unphilosophical...", p. 503, see also **Against Method...** (1988), p. 46, n. 19; **Against Method...** (1993), p. 46, n. 20.

³⁸ See Parascandalo and Hösle, "Three Interviews with Paul...", p. 117.

³⁹ Feyerabend, **Killing Time...**, p. 91.

⁴⁰ Feyerabend's letter to Ben-Israel, dated 22 Jan. 1989, in: Isaac BEN-ISRAEL, "Philosophy and Methodology of Military Intelligence. Correspondence with Paul Feyerabend", *Philosophia* 2001, Vol. 28, No. 1–4, p. 80 [71–101].

³³ See Renato PARASCANDALO and Vittorio Hösle, "Three Interviews with Paul K. Feyerabend", *Teleos. A Quarterly Journal of Critical Thought* 1995, No. 102, p. 118 [115–148].

³⁴ See Feyerabend, "Concluding Unphilosophical...", p. 515.

³⁵ See Paul K. Feyerabend, "Preface to the Second Edition", in: Feyerabend, **Farewell to Reason...**, p. V [V–VIII].

³⁶ See Jung, "Paul K. Feyerabend...", p. 162; Feyerabend, **Against Method...** (1993), p.1; Feyerabend, **Against Method...** (1988), p. 1.

When writing **Against Method**, he did not intend to replace well-known, long and old methodological dogmas with a short and new dogma of his own making. He wanted to "let the sciences speak for themselves", ⁴¹ which no methodological system can guarantee, but he did not want "to add myths of his own to the myths of the scientists". ⁴² His anarchism was therefore not aimed at eliminating methodology, its aim was to reform it. Practical rules adapted to a specific situation replace here the universal standards assumed by other philosophers. ⁴³ The critique of these standards was to be yet the beginning of a better understanding of the sciences, of a better life, of better human relationships. ⁴⁴

4. The anarchistic approach to knowledge

This reform of methodology essentially consisted of combining Weltanschauungen analyses with epistemological anarchism, resulting in a very specific approach that was described as "the last »move« in the evolution of twentieth-century philosophy of science". ⁴⁵ The essence of this move is expressed in the following Feyerabend's thesis: "Science is an essentially anarchistic enterprise [...]". ⁴⁶ Explaining why this was the last move requires three comments of historical nature.

There is no doubt that science has been cognitively successful, and that it has been the source of many practical benefits. ⁴⁷ These facts mainly account for the

⁴¹ See Feyerabend, "Concluding Unphilosophical...", p. 503.

 $^{^{\}rm 42}\,{\rm From}$ an interview conducted by Teresa Ordunya in Berkeley, California, March 1981, https://tiny.pl/czl27 (28.01.2024).

⁴³ See FEYERABEND, "Concluding Unphilosophical...", s. 503; Feyerabend's letter to Ben-Israel, dated 30 May 1989, in: BEN-ISRAEL, "Philosophy and methodology of military intelligence...", p. 90.

⁴⁴ See Feyerabend, Killing Time..., p. 134.

⁴⁵ Kazimierz Jodkowski, "»Wszystko ujdzie«. Anarchizm epistemologiczny Paula K. Feyerabenda", Akcent 1982, nr 2 (8), p. 131 [127–134]. Denise Russell expressed a similar opinion, "Anything Goes", Social Studies of Science 1983, Vol. 13, No. 3, p. 437 [437–464].

⁴⁶ FEYERABEND, **Against Method...** (1975), p. 17; FEYERABEND, **Against Method...** (1988), p. 9; FEYERABEND, **Against Method...** (1993), p. 9; see also FEYERABEND, "Against Method..." (1970), p. 76.

⁴⁷ Even "the worst enemy of science", Paul K. Feyerabend, did not claim that this was not the case. See e.g., Feyerabend, **Killing Time...**, pp. 91, 151; Feyerabend, **Science in a Free Society...**, p. 101.

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belief that there is a characteristic rationality of conduct in science. ⁴⁸ This rationality manifests itself in beliefs according to which: there are science-specific reasons for accepting, rejecting or modifying theories; the whole range of methodological decisions other than those mentioned above, which scientists usually make, are also made in a science-specific way. ⁴⁹

The proponents of such an approach to the problem of scientific rationality intended only to describe it accurately if they accepted the descriptive character of methodology (e.g. Henri Poincaré), ⁵⁰ or to constitute it, if they regarded methodology as a normative discipline (e.g. Karl R. Popper). ⁵¹ However, two thick cracks have appeared on such an approach. ⁵²

The first serious and at the same time widely perceived crack ⁵³ on this approach was Thomas S. Kuhn's view that periods of rational development of science are interspersed with "irrational" ones. The vast majority of the history of science consists of periods of normal science, i.e., the one practised on the basis of a specific paradigm (the disciplinary matrix) setting the specific standards of scientific rationality. In contrast, periods of scientific revolutions, during which this methodological superstructure is exchanged, are relatively rare and short phases in the development of science. These periods — characterized by a tendency to replace the existing criteria of rationality — are not, according to Kuhn, reconstructible on the basis of the previously accepted accounts of the problem of scientific rationality. For this reason, writing about interparadigmatic incommensurability, Kuhn argued against the belief that there are supra-historical criteria for evaluating theories and methodological rules. In his view, with the victorious sci-

⁴⁸ See e.g., Henri POINCARÉ, Science and Method, Thomas Nelson and Sons, London, Edinburgh, Dublin and New York 1914, pp. 22–23, 59–60, 275.

⁴⁹ See e.g., Karl R. POPPER, **The Logic of Scientific Discovery**, Routledge Classics, London and New York 2002, p. 4.

⁵⁰ See Henri Poincaré, **Science and Hypothesis**, The Walter Scott Publishing Co, New York 1905, p. xxvii.

⁵¹ See Popper, **The Logic of Scientific Discovery...**, p. 29.

⁵² See e.g., Stefan Amsterdamski, **Między historią a metodą**, Państwowy Instytut Wydawniczy, Warszawa 1983, pp. 11–12.

⁵³ Before that, of course, there was Ludwik Fleck's conception of the thought collective (*Denk-kollektiv*) expressed in **Entstehung und Entwicklung einer wissenschaftlichen Tatsache**. **Einführung in die Lehre vom Denkstil und Denkkollektiv** (Benno-Schwabe et Co. Verlag, Basel 1935).

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entific revolution, not only do the theoretical beliefs change but so does the entire methodological superstructure changes.

The second significant, and at the same time the latest move in the evolution of twentieth century philosophy of science, crack on this view was Paul K. Feyerabend's epistemological anarchism. This anarchism has two essential components.

Feyerabend challenged the Kuhnian "punctuated equilibrium" thesis ⁵⁴ by questioning the relevance of the division between the rational (scientific) and the irrational (non-scientific). He maintained that the elementary assumption of all the previous methodologies, including even the limited Kuhnian account, of the existence of a characteristic rationality of research procedure in science should be rejected. According to Feyerabend, every rule of doing science described or discovered by methodologists has been broken and replaced by another counterrule. Therefore, such tactics of breaking valid methodological rules should not be reserved, as in Kuhn's view, only for the revolutionary periods, but should be applied simultaneously (revolution in permanence) ⁵⁵ in revolutionary and normal periods (proliferation and tenacity in Feyerabend's terminology).

By adopting the incommensurability thesis, Feyerabend ⁵⁶ did not only undermine the idea of the cumulative development of science and the belief that modern theories are better than their predecessors as they are devoid of superstition, that they are broader because they cover a wider range of phenomena, that they are deeper because they explain the studied aspect of the world by means of a smaller number of more basic principles. ⁵⁷ He also rejected the thesis that in-

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⁵⁴ Kuhn's approach is sometimes called "punctuated equilibrium". See Peter GodFREY-SMITH, **The**ory and **Reality. An Introduction to the Philosophy of Science**, University of Chicago Press, Chicago and London 2003, p. 100.

⁵⁵ This slogan is coined in the moderate period of Feyerabend's work, see Feyerabend, "Problems of Empiricism...", p. 172.

⁵⁶ Kuhn acknowledged that Feyerabend began to use the term "incommensurability" independently, and this occurred during their discussions (1960–1961) on the manuscript **The Structure...**, see Thomas S. KUHN, "Commensurability, Comparability, Comunicability", in: Thomas S. KUHN, **The Road Since Structure. Philosophical Essays, 1970–1993, with an Autobiographical Interview**, James Conant and John Haugeland (ed.), University of Chicago Press, Chicago, 2000, p. 33, n. 1 [33– 57].

⁵⁷ The fullest articulation of the incommensurability thesis can be found in the writings of Thomas S. Kuhn and Paul K. Feyerabend. However, they did not use the term "incommensurability"

commensurable theories can be compared objectively. The absence of such a standard for comparing incommensurable theories demonstrates that, at crucial periods in the development of science, the choice of theory is determined by factors that differ significantly from those considered by earlier philosophies of science.

The consequences of undermining the punctuated equilibrium thesis and accepting the incommensurability thesis ⁵⁸ can be presented as follows.

What Feyerabend proposed in Against Method is neither a theory of the de-

Despite the fact that the relationship of incommensurability is most often said to hold among scientific theories, not all such theories can be incommensurable. Indeed, according to Feyerabend this possibility holds only for realistically interpreted universal ones (see e.g., Feyerabend, Against Method... (1975), p. 114). Universal theories can be characterized in three ways. First, they are toplevel theories: that is, theories that are not elements of other theories. The objects they speak of are neither defined independently from these theories, nor are we independently convinced of the exis tence of these objects (see Paul K. Feyerabend, "Physics and Ontology", in: Paul K. Feyerabend, Philosophical Papers. Vol. 4. Physics and Philosophy, Stefano Gattei and Joseph Agassi (eds.), Cambridge University Press, New York 2016, pp. 20-22 [9-24]). Second, they are theories that apply, at least in some respect, to everything that exists. They must provide the researcher with an adequate system of concepts for describing and explaining features of the world. They must also be sufficient to completely replace the previously accepted language and ontology (see Feyerabend's statement in Herbert Feigl, Paul K. Feyerabend, Norwood R. Hanson, Carl G. Hempel, Mary Hesse, Grover Maxwell and William Rozeboom, "Discussion at the Conference on Correspondence Rules", in: RADNER and WINOKUR (eds.), Analyses of Theories and Methods..., p. 246 [220-259]). Third, they are theories that are distinguishable from (directly testable) empirical generalizations. Universal theories are themselves tested by deriving empirical generalizations from them and from certain boundary conditions (see FEYERABEND, "Explanation, Reduction and Empiricism...", p. 44, n. 1).

Incommensurable theories are incompatible at *the level quantitative variability of empirical consequences*. This claim is valid for any pair of consecutive theories of a given field that stem from dif-



perspicuously, leading to a number of misinterpretations of the thesis. The word itself has no sharply defined meaning in the philosophy of science, either. That issue lies far beyond the scope of this paper. For present purposes, I will make use of just one approach, which deals with the problem of the vagueness of this concept in such a way that it distinguishes five levels of incommensurability where scientific theories are concerned: quantitative variability of empirical consequences, observational variability, linguistic variability, variability with respect to scientific problems and evaluation criteria, and ontological variability (see Kazimierz Jopkowski, **Teza o niewspółmierności w ujęciu Thomasa S. Kuhna i Paula K. Feyerabenda**, *Realizm. Racjonalność. Relatywizm*, Vol. 1, Wydawnictwo UMCS, Lublin 1984, https://tiny.pl/tlk98 (28.01.2024); see also note 20 to Lakatos' letter to Feyerabend, dated 2 March 1968 added by Motterlini, in: Lakatos and Feyerabend, **For and Against Method...**, p. 133. In two of Feyerabend's texts one can find clues that allow for just such an interpretation of the thesis of incommensurability (see Paul K. FEYERABEND, "Changing Patterns of Reconstruction", *British Journal for the Philosophy of Science* 1977, Vol. 28, No. 4, pp. 363–365 [351–369], see also p. 364 n. 3; FEYERABEND, **Science in a Free Society...**, p. 66–67, see also p. 67, n. 114).

velopment of science nor idle rhetorics. ⁵⁹ His anarchism is a specific approach to knowledge, a remedy to free science from the myth of a one-size-fits-all method.

I introduce "anarchism" as a *medicine*, not as a final philosophy [...]. ⁶⁰

I don't defend anarchism as an "eternal philosophy" but as a "medicine" (A[gainst] M[ethod], p. 17) that may have to be withdrawn when the conditions change (A[gainst] M[ethod], p. 22).⁶¹

Anarchism is the first step towards a new, more liberal form of rationality:

⁵⁸ Those are not all the reasons of Feyerabend's shift to the anarchist camp. Another (and main, according to Feyerabend himself) reason was an encounter in 1965 with Carl Friedrich von Weizsäcker, thanks to him Feyerabend realised that poor, abstract, philosophical reasoning could not account for the changes occurring in science. (see e.g., Feyerabend's letter to Lakatos, dated 20 Jan. 1972, in: Lakatos and FEYERABEND, For and Against Method..., s. 272; Science in a Free..., p. 117; Against Method 1993, p. 262; Farewell to Reason..., s. 316–317; JUNG, "Paul K. Feyerabend...", p. 162–163). Another event was the International Colloquium on the Philosophy of Science held in London between 11 and 17 July 1965. The fourth volume of the colloquium proceedings included Feyerabend's text "Consolations for the Specialist", which proved to be an important step towards

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ferent theoretical principles. The basis of its validity, on which Feyerabend relies, is the difference in Galileo's and Newton's explanation of the free fall of bodies (see e.g., FEYERABEND, "How to be a Good...", p. 84; Feyerabend, "Explanation, Reduction...", p. 58; Feyerabend, "Problems of Empiricism...", p. 168). On the ontological level, the incommensurability thesis states that when moving from one theory to another, fundamental beliefs about the structure of the world and the structure of each object are changed (see e.g. Feyerabend, "Problems of Empiricism ... ", p. 170; Feyerabend, "Introduction to Volumes 1 and ... ", p. xi; FEYERABEND, "Explanation, Reduction ... ", p. 68; FEYERABEND, "Theses on Anarchism...", p. 114; FEYERABEND, Against Method... (1975), p. 188; FEYERABEND, Science in a Free..., p. 80). So, before we start looking for causes of the phenomena in the world around us, we must first decide where we will look for these causes. On the methodological level (i.e. that which deals with the variability of scientific problems and criteria of evaluation), the incommensurability thesis states that when moving from one theory to another (or from one paradigm to another, or from one scien tific research program to another), standards of scientificality and criteria for evaluating research results are radically altered (see e.g., FEYERABEND, "Consolations for the Specialist...", pp. 163-164; FEYERABEND, "The Methodology of Scientific..." p. 212, n. 18). The level of observational variability engenders different ways of seeing the world. According to this idea (i.e. that of observational variabil ity), proponents of different, incommensurable theories will view the world differently (see e.g., Feyerabend, "Problems of Empiricism...", p. 214; Feyerabend, "Against Method..." (1970), pp. 85-87; FEYERABEND, "Consolations for the Specialist...", pp. 155-156). However, if all empirical evidence is theorized, then there is no way to verify this evidence independently of theory. On the linguistic level, the incommensurability thesis boils down to the claim that when moving from one universal theory to another, certain terms change their meaning. In turn, this effectively makes it difficult to achieve accurate translations of the claims of alternative theories. Such theories do not use terms that share common meanings as the terms of each theory owe their meaning to the fundamental principles of the theory from which they derive (see FEYERABEND, "Problems of Empiricism...", p. 227, n. 19; FEYERABEND, "Explanation, Reduction...", p. 77-78).

Today epistemology is sick and in need of a medicine. The medicine is anarchism. Anarchism, I say, will heal epistemology and *then* we may return to a more enlightened and more liberal form of rationality.⁶²

Epistemological anarchism consists in a particular way of using methodological rules:

Does [...] ["anything goes"] mean[s] that there will not be a theory of knowledge? Not at all. There will be lots of rules of thumb with practical advice about their limits and

⁵⁹ Still, the first two editions (1970 and 1975) of Feyerabend's *Opus magnum* were subtitled "Outline of an Anarchistic Theory of Knowledge". Feyerabend later maintained that he proposed the term "anarchist theory of knowledge" deliberately, considering it a "Dadaist trick". "Theory" suggests order, while "anarchism" suggests disorder (see e.g., Paul K. FEYERABEND, **The Tyranny of Science**, ed. by Eric Oberheim, Polity Press, Cambridge UK, Malden USA 2011, pp. 129–130; FEYERABEND, "Concluding Unphilosophical...", pp. 488–489). It went largely unnoticed and the term was taken quite seriously (see e.g., Frederick SUPPE, "Afterword — 1977", in: SUPPE (ed.), **The Structure of Scientific Theory of Knowledge: Science in a Free Society**", *Theory and Society* 1982, Vol. 11, No. 5, p. 724 [724–728]; Mark WILSON, "Review of **Against Method**", *The Philosophical Review* 1978, Vol. 87, No. 1, p. 106 [106–108]), and this became a source of much misunderstanding. Perhaps precisely because the term was taken too seriously, he dropped the subtitle "Outline of an Anarchistic Theory of Knowledge" in the second (1988) and third (1993) editions of **Against Method**. Feyerabend also admitted (see e.g., FEYERABEND, **Killing Time...**, pp. 144–146) that he himself had contributed largely to the disarray that followed the publication of **Against Method**.

The 1975 edition can be considered a Dadaist trick, as the book was planned as part of a joint venture with Imre Lakatos and, as Feyerabend later recalled, it was "a letter written tongue in cheek" (FEYERABEND, "Concluding Unphilosophical...", p. 489). In that edition he wrote explicitly that "it is a long and rather personal *letter* to Imre and every wicked phrase it contains was written in anticipation of an even more wicked reply from the recipient" (FEYERABEND, **Against Method...** (1975), p. 9). Moreover, in the subject index to this essay, on p. 337, next to the term "rhetoric", Feyerabend even included a reference to the entire text of **Against Method**. However, it would be extremely difficult to assert that the article "Against Method..." is a Dadaist trick, as the text gives the impression of a serious treatise, as is evidenced both by the titles of the individual sections and by the manner



Against Method (see Feyerabend's letter to Lakatos, dated 17 Dec. 1967, in: LAKATOS and FEYERABEND, For and Against Method..., pp. 120 and 125). Still another event, beginning in 1964, was Feyerabend's contact with the mosaic of American cultures at the University of California, Berkeley, where he was teaching, , and the conclusion he came to after surveying these cultures more closely, that we should start learning from them (see e.g., Paul K. FEYERABEND, "Letters to the Director of the Department of Philosophy", in: LAKATOS and FEYERABEND, For and Against Method..., pp. 385–386, 391–392 [382–393]; Feyerabend's letter to Lakatos, dated 18 Nov. 1968, in: LAKATOS and FEYERABEND, For and Against Method..., p. 153; Feyerabend's letter to Lakatos, dated 2 June 1969, in: LAKATOS and FEYERABEND, For and Against Method..., p. 167; FEYERABEND, Science in a Free..., pp. 117–118, Feyerabend, Against Method... (1993), pp. 263–265; FEYERABEND, Farewell to Reason..., pp. 317–318).

their judicious application inside the limits, but there will not be any general principles. $^{\rm 63}$

This approach, contrary to appearances and Feyerabend's vague way of expressing himself, ⁶⁴ does not centre around the universal principle of anything goes, ⁶⁵ since the latter, according to Feyerabend's own views, is cognitively empty: ⁶⁶

There is no rule that is valid under all circumstances just as there is no measuring in-

⁶³ Paul K. FEYERABEND, "Logic, Literacy, and Professor Gellner", British Journal for the Philosophy of Science 1976, Vol. 27, No. 4, p. 388 [381–391].

⁶⁴ For example, in his article "Against Method..." (1970) he wrote as follows: "To those who look at the rich material provided by history [...] it will seem that there is only one principle that can be defended under all circumstances, and in all stages of human development. It is the principle: anything goes. This abstract principle [...] is the one and only principle of our anarchistic methodology [...]" (pp. 25–26). And in footnote 38 (p. 105) he explained that: "Some of my friends have chided me for elevating a statement such as »anything goes« into a fundamental principle of epistemology. They did not notice that I was joking". Both comments suggest that anything goes is not a fundamental principle of anarchist methodology.

However, in the same year, in another text he wrote something different: "Neither Galileo, nor Kepler, nor Newton use specific and well-defined methods. They are eclectics, methodological opportunists. [...] [L]ooking at the actual historical situation we see that science was advanced in many different ways and that scientific problems were attacked by many different methods. In practice the only principle that is constantly adhered to seems to be *anything goes*" (Paul K. FEYERABEND, "Experts in a Free Society" (1970), in: FEYERABEND, **Philosophical Papers**. **Vol. 3**..., pp. 122–123 [112–126][italics in the original], see also FEYERABEND, "Consolations for the Specialist...", p. 161).

In 1974, in "Thesen zum Anarchismus", he wrote in the same vein: "[Epistemological anarchist] [...] will try to convince his audience that the only universal rule that can safely be in agreement with the moves the scientist must make to advance his subject is anything goes" (FEYERABEND, "Theses on Anarchism...", p. 116). There is no indication here that anything goes is not a fundamental principle. Similarly, he wrote in **Against Method...** (1975): "To those who look at the rich material provided by history, and who are not intent on impoverishing it in order to please their lower instincts, their craving for intellectual security in the form of clarity, precision, "objectivity«, "truth« it will be-

of argumentation, in which the mechanisms of science are explained using Hegelian dialectics. For example: "How can this immobility [of science] be overcome? [...] I would like to indicate, very briefly, how certain ideas of Hegel can be used to get a tentative first answer, and thus to make a first step in our attempt to reform the sciences" (FEYERABEND, "Against Method..." (1970), pp. 31–32).

⁶⁰ FEYERABEND, **Science in a Free...**, p. 186, n. 3 [italics in the original]. See also Feyerabend's letter to Lakatos, dated 26 Dec. 1970, in: LAKATOS and FEYERABEND, **For and Against Method...**, pp. 232–233.

⁶¹ FEYERABEND, **Science in a Free...**, p. 162, n. 26.

⁶² FEYERABEND, Science in a Free..., p. 127 [italics in the original].

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strument that measures everything and in all circumstances, but it is possible to construct such a rule in a *purely formal manner*: it is the rule "anything goes". ⁶⁷

This approach has the following components. "[I]t merely rejects the absolute validity of any rule in all historical epochs". ⁶⁸ In the first book edition (1975), Feyerabend acknowledged that the term "anarchism" was misleading, implying a total absence of principles, ⁶⁹ while his aim was not to eliminate all principles, ⁷⁰ but to change attitudes towards them:

⁶⁵ It is most likely that Feyerabend took the phrase "anything goes" from the title of a Cole Porter's musical entitled **Anything Goes**. In this musical, one of the title songs is "Anything Goes", which includes the following: "But now, God knows, Anything Goes". He may have watched the 1936 film version of the musical in a cinema near his home in Berkeley, for he liked to watch films from the 1930s (see FEYERABEND, **Killing Time...**, p. 121; RUSSELL, "Anything Goes...", pp. 452–453).

⁶⁶ See FEYERABEND, **Science in a Free Society...**, p. 188; OBERHEIM, **Feyerabend's Philosophy**..., p. 33. For discussion see Jamie SHAW, "Was Feyerabend an Anarchist? The Structure(s) of »Anything Goes«", *Studies in History and Philosophy of Science Part A* 2017, Vol. 64, p. 12 [11–21].

⁶⁷ Feyerabend, "Logic, Literacy, and Professor Gellner...", p. 388 [italics added].

⁶⁸ Kazimierz Jodkowski, "Nauka w oczach Feyerabenda", in: Kazimierz Jodkowski (red.), **Czy sprzeczność może być racjonalna?**, *Realizm, Racjonalność, Relatywizm*, Vol. 4, Wydawnictwo Uni-wersytetu Marii Curie-Skłodowskiej, Lublin 1986, pp. 251–252 [227–270].

⁶⁹ In this edition, he further explained why he preferred to use the term "Dadaism": "[A]narchism [...] has features I am not prepared to support. [...] I now prefer to use the term »dadaism«. [...] A Dadaist is utterly unimpressed by any serious enterprise [...]. A Dadaist is convinced that



come clear that there is only *one* principle that can be defended under *all* circumstances and in *all* stages of human development. It is the principle: *anything goes*" (pp. 27–28 [italics in the original]).

In 1978, clearing up a number of misunderstandings about the principle of anything goes, he wrote: "*»anything goes« does not express any conviction of mine, it is jocular summary of the predicament of the rationalist:* if you want universal standards, I say, if you cannot live without principles that hold independently of situation, shape of world, exigencies of research, temperamental pecularities, then I can give you such a principle. It will be empty, useless, and pretty ridiculous — but it will be a *»*principle«. It will be the *»*principle« *»anything goes«"* (FEYERABEND, Science in a Free Society..., p. 188 [italics in the original], see also pp. 39–40).

In the "Preface" to the second edition of **Against Method...** (1988) he wrote similarly: "[...] Imre Lakatos loved to embarrass serious opponents with jokes and irony and so I, too, occasionally wrote in a rather ironical vein. An example is the end of Chapter 1: »anything goes« is not a »principle« I hold — I do not think that »principles« can be used and fruitfully discussed outside the concrete research situation they are supposed to affect but the terrified exclamation of a rationalist who takes a closer look at history" (p. vii). The same is repeated in the "Preface" to **Against Method...** (1993) on p. vii. However, this did not prevent him from repeating what he had written in the 1975 edition ("To those who look...", p. 19). He also repeated it in **Against Method...** (1988), p. 19.

I argue that all rules have their limits and that there is no comprehensive "rationality", I do not argue that we should proceed without rules and standards. I also argue for a contextual account but again the contextual rules are not to replace the absolute rules, they are to *supplement* them. ⁷¹

For me the rules of context-dependent rationalism [i.e. contextual rules] are just as limited as the rules of old-fashioned rationalism [i.e. absolute rules]. 72

In "Die »Rationalität« der Forschung" he explained it more comprehensively:

I want to expand our inventory of rules — the more rules the better — and also propose a new use for all rules and criteria. My position is characterised by this *use*, and not by a particular rule *content*. 73

Feyerabend also sparsely used the terms "epistemological anarchodadaism" (see Feyerabend, **Science in a Free...**, p. 163) and "dialectical rationalism" (see Feyerabend's letter to Lakatos, dated 30 July 1970, in: LAKATOS and FEYERABEND, **For and Against Method...**, pp. 207–208). With the latter term, he expressed a willingness to change the rules applied under the influence of circumstances.

⁷⁰ "I neither want to *replace* rules, nor do I want to show their worthlessness [...]" (FEYERABEND, "Changing Patterns...", p. 368, n. 1 [italics in the original].

⁷¹ FEYERABEND, **Against Method...** (1988), p. 249 [italics added]; FEYERABEND, **Against Method...** (1993), p. 231. See also FEYERABEND, **Science in a Free...**, p. 164. In earlier editions, he did not express this thought as clearly. For example, he wrote: "there no longer exists a single set of rules that will guide us through all the, twists and turns of the history of thought (science)" (FEYERABEND, "Against Method..." (1970), p. 78). "My intention is not to replace one set of general rules by another such set: my intention is, rather, to convince the reader that all methodologies, even the most obvious ones, have their limits" (FEYERABEND, **Against Method...** (1975), p. 32). See also FEYERABEND, **Science in a Free...**, p. 145.

⁷² Feyerabend, Science in a Free..., p. 164.

a worthwhile life will arise only when we start taking things lightly and when we remove from our speech the profound but already putrid meanings it has accumulated over the centuries (»search for truth«; »defence of justice«; »passionate concern«; etc., etc.)" (FEYERABEND, **Against Method...** (1975), p. 21, n.12, this footnote was removed by Feyerabend from the other editions of **Against Method**... ("NDada«, says Hans Richter in **Dada: Art and Anti-Art**, »not only had no programme, it was against all programmes«" (FEYERABEND, **Against Method...** (1975), p. 33, n. 4). Why, then, in the five years that elapsed between the publication of the article and the book, did Feyerabend not change the term "anarchism" to "Dadaism"? One possible answer can be found in Richter's book cited by Feyerabend: "Our feeling of freedom from rules [...] [and] precepts [...] was a major stimulus. *The freedom not to care a damn about anything, the absence of any kind of opportunism*, which in any case could have served no purpose, brought us all the closer to the source of all art, the voice within ourselves" (Hans RICHTER, **Dada: Art and Anti-Art**, transl. by David Britt, Thames & Hudson Ltd, London 1965, p. 50 [italics added]). The *credo* formulated in this way makes the Dada programme more distant from Feyerabend's intention than the forms of anarchism he criticised.

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[W]e keep all the rules we know and all the criteria in a large conceptual toolbox and use them according to the requirements of the research. $^{74}\,$

This does not mean, however, that Feyerabend claimed that there are no rules that adequately describe scientific practice. He therefore did not deny the claim that, in a particular situation, some method would be better than another:

It is indubitable that the application of clear, well-defined, and above all "rational" rules *occasionally* leads to results. A vast number of discoveries owe their existence to the systematic procedures of their discoverers. 75

[I]n my case studies I not only try to show the *failure* of traditional methodologies, I also try to show what procedures *aided* the scientists *and should therefore be used*. I criticize some procedures but I defend and recommend others.⁷⁶

He questioned the wisdom of any attempt to turn them into universally applicable rules:

But from that, it does not follow that there are rules which must be obeyed for *every* cognitive act and *every* scientific investigation. On the contrary, it is totally improbable that there is such a system of rules, such a logic of scientific discovery, which permeates all reasoning without obstructing it in any way.⁷⁷

[T]here is not a single methodological rule that does not occasionally inhibit science and not a single "irrational" move that may not further it, given the right circumstances. 78

He justified this thesis with the following cosmological assumption:

RAN INSTYTUT

⁷³ Paul K. FEYERABEND, "Die »Rationalität« der Forschung", in: Paul K. FEYERABEND, Ausgewählte Schriften. Band 1. Der wissenschaftstheoretische Realismus und die Autorität der Wissenschaften, Friedr. Vieweg & Sohn Verlagsgesellschaft mbH, Braunschweig 1978, p. 345 [339-350]. See also FEYERABEND, Science in a Free..., pp. 32–33, 164; Feyerabend, "Changing Patterns of Reconstruction...", p. 368, n. 1.

⁷⁴ FEYERABEND, "Die »Rationalität« der Forschung...", p. 349.

⁷⁵ Paul K. FEYERABEND, "On the Limited Validity of Methodological Rules" (1972), transl. by Eric Oberheim i Daniel Sirtes, in: FEYERABEND, **Philosophical Papers. Vol. 3...**, p. 138 [138–180].

⁷⁶ FEYERABEND, Science in a Free..., p. 188 [italics in the original]. See also pp. 15, 32, 164.

⁷⁷ Feyerabend, "On the Limited Validity...", p. 138.

⁷⁸ Feyerabend, "Theses on Anarchism...", p. 115. See also Feyerabend, Science in a Free..., p. 142.

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The world in which we live is very complex. Its laws do not lay open to us, rather they present themselves in diverse disguises (astronomy, atomic physics, theology, psychology, physiology, and the like). Countless prejudices find their way into every scientific action, making them possible in the first place. It is thus to be expected that every rule, even the most "fundamental", will only be successful in a limited domain, and that the forced application of the rule outside of its domain must obstruct research and perhaps even bring it to stagnation. ⁷⁹

His famous anything goes principle is also subjected to the same limitations ⁸⁰ — it does not apply absolutely, regardless of the circumstances. However, the interpretation of this principle has been the source of many "never-ending misunderstanding[s]". ⁸¹

However, in fact, it is no new fundamental principle of doing science: ⁸²

"Anything goes" is not the one and only "principle" of a new methodology, recom-

⁸² See Kazimierz Jodkowski, **Wspólnoty uczonych, paradygmaty i rewolucje naukowe**, *Realizm, Racjonalność, Relatywizm*, Vol. 22, Wydawnictwo UMCS, Lublin 1990, p. 108; Russell, "Anything Goes...", p. 440; Gonzalo Munévar, "Science in Feyerabend's Free Society", p. 180 [179–198].

⁷⁹ Feyerabend, "On the Limited Validity...", p. 138. See also Feyerabend, "Theses on Anarchism...", p. 115.

⁸⁰ See Feyerabend, **Science in a Free...**, p. 31.

⁸¹ Oberheim, **Feyerabend's Philosophy...**, p. 33. See also, e.g. Shaw, "Was Feyerabend an Anarchist...", pp. 17-18. Russell discussed the following list of the most common misunderstandings linked to this Feyerabend "principle": "Anything goes = science proceeds counter-inductively" (Russell, "Anything Goes...", p.443); "Anything goes = methodological pluralism" (Russell, "Anything Goes...", p. 444); "Anything goes = methodologies should guide, and be guided by practice" (Russell, "Anything Goes...", p. 445); "Anything goes = all methodological rules are useless" (Russell, "Anything Goes...", p. 447). On the misinterpretation of "anything goes" cf. e.g.: Michael Burawoy, "Critical Sociology: A Dialogue Between Two Sciences", Contemporary Sociology 1998, Vol. 27, No. 1, s. 13 [12-20]; H.M. Collins, Graham Cox, "Recovering Relativity: Did Prophecy Fail?", Social Studies of Science 1976, Vol. 6, No. 3/4, pp. 425-426 [423-444]; Noretta KOERTGE, "For and Against Method", The British Journal for the Philosophy of Science 1972, Vol. 23, No. 3, p. 280 [274-290]; Noretta KOERTGE, "Review of Science in a Free Society", The British Journal for the Philosophy of Science 1980, Vol. 31, No. 4, p. 388 [385-390]; Jean Curthoys and Wal Suchting, "Feyerabend's Discourse Against Method: A Marxist Critique", Inquiry 1977, Vol. 20, Nos. 2-3, p. 340, n. 7, p. 251 [243-397]; Gunnar Andersson, Criticism and the History of Science: Kuhn's, Lakatos's, and Feyrabend's Criticism of Critical Rationalism, E.J. Brill, Leiden, New York — Köln 1994, p. 5; Ian I. Mitroff, "Review of Against Method: Outline of an Anarchistic Theory of Knowledge", Contemporary Sociology 1976, Vol. 5, No. 3, p. 347 [346-347]; James E. McGuire, "Scientific Change: Perspectives and Proposals", in: Merrilee H. SALMON (ed.), Introduction to the Philosophy of Science, Hackett Publishing Company, Indianapolis 1999, pp. 159-160 [132-178].

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mended by me.⁸³

On the one side, anything goes is a statement of the fact that there are neither rules nor methods that are unconditionally valid at all stages of development of science: ⁸⁴

[R]ules and standards are not abolished — one does not enter research without any Methodist equipment — but *are used tentatively and changed when the results are not as expected*. These changes do not prove that there are more general rules which decide when specific rules can be used and when they have to be suspended for individuals when behaving in an orderly manner, both constitute rules and follow them. ⁸⁵

Given the above statement by Feyerabend, his epistemological anarchism can be termed "methodological fallibilism". ⁸⁶

According to classical fallibilism, scientific knowledge is subject to permanent revision and the possibility that it may turn out to be false to a large extent cannot be ruled out. ⁸⁷ As for scientific theories, their truth is not pronounced categorically, but only in the category of probability. What is exposed is not so much the falsity or non-availability of such knowledge as its essentially provisional character. And according to methodological fallibilism understood in this way, carefully developed methods used to acquire knowledge work in some cases, which does not mean that they will always be effective. It cannot be said of any methodology

⁸⁷ Such a view was fully embraced by Feyerabend, cf. e.g., Paul K. FEYERABEND, "Knowledge Without Foundations", p. 76 [50–77]; Paul K. FEYERABEND, "On the Improvement of the Sciences and the Arts and the Possible Identity of the Two", in: Robert S. COHEN, and Marx W. WARTOFSKY, **Proceedings** of the Boston Colloquium for the Philosophy of Science, 1964/1966. In Memory of Norwood Russell Hanson, *Boston Studies in the Philosophy of Science*, Vol. III, D. Reidel Publishing Company, Dordrecht 1967, p. 403 [387–415].



⁸³ FEYERABEND, Science in a Free..., p. 39 [italics in the original].

⁸⁴ See e.g., FEYERABEND, "Against Method..." (1970), p. 21, p. 105, n. 38; FEYERABEND, "On the Limited Validity...", p. 260; FEYERABEND, **Against Method...** (1988), p. 249; FEYERABEND, **Against Method...** (1993), p. 231; FEYERABEND, "Die »Rationalität« der Forschung...", p. 343, fn. *; PARASCANDALO and HÖSLE, "Three Interviews with Paul...", p. 117; JUNG, "Paul K. FEYERABEND...", p. 162.

⁸⁵ FEYERABEND, Science in a Free..., p. 166 [italics added].

⁸⁶ Feyerabend's anarchism had already been described by the term "sceptical fallibilism". However, with this term McEvoy was not emphasising Feyerabend's novel approach to methodological rules. He merely emphasised "the movement of his thought from the empiricism of critical rationalism which characterized his early work, to the relativism [...] expressed in his later work" (McEvoy, "A »Revolutionary« Philosophy of Science...", p. 49–50).

that it is successful, but only that it has been successful in some cases. It is not possible to distinguish a single set of methodological rules that will always contribute to the growth of knowledge. What is exposed here is not so much the inaccuracy of the methodological rules as their essentially provisional nature.

On the other hand, given the above statement, anything goes expresses four heuristic recommendations. "[O]bject to rules, standards, arguments which are general, and independent of the situation in which they are applied" ⁸⁸ — as cases affirming the existence of such general rules, standards and arguments, in the light of the history of science, can hardly be considered more distinguished than those that are in disagreement with these rules, standards and arguments. ⁸⁹ "[D]on't restrict your imagination"⁹⁰ — do not hastily dismiss bizarre viewpoints, as it is impossible to know in advance where researching them might lead. ⁹¹ "[D]o your own thing" ⁹² — do what you are convinced is the best means to solve the problem you are working on. ⁹³ "[T]ry anything, see if it goes" ⁹⁴ — literally any

⁹² "»Anything goes« [...] means that [...] I am convinced that Mankind, and even Science, will profit from everyone doing his own thing: a physicist might prefer a sloppy and partly incomprehensible paper full of mistakes to a crystal-clear exposition because it is a natural extension of his own, still rather disorganized, research and he might achieve success as well as clarity long before his rival who has vowed never to read a single woolly line [...]". FEYERABEND, **Against Method...** (1975), p. 215; FEYERABEND, **Against Method...** (1988), p. 165; FEYERABEND, **Against Method...** (1993), p. 159.

⁹³ An outline of this way of thinking can be found in "How to be a Good Empiricist…" (p. 94) and in "Problems of Empiricism…" (p. 177) in the following statement: "After all, a man can do only so many things at a time, and it is better when he pursues a theory in which he is interested rather than a theory he finds boring".

⁹⁴ Marx W. WARTOFSKY, "How to Be a Good Realist", p. 28 [25–40]. I have used Wartofsky's formulation here as it clearly and briefly captures what Feyerabend himself said: "»[A]nything goes« [...] means: anything goes, therefore also law and order, argument, irrationalism etc" (Feyerabend's let-

⁸⁸ FEYERABEND, "Logic, Literacy, and Professor Gellner...", p. 387.

⁸⁹ See e.g., Feyerabend, Science in a Free..., pp. 192, 212–213; Feyerabend, Killing Time..., p. 91.

⁹⁰ "So, »anything goes« means only »don't restrict your imagination« because a very silly idea can lead to a very solid result" (Feyerabend, **The Tyranny of Science...**, p. 130–131).

⁹¹ The prohibition against uncritically rejecting absurd-sounding viewpoints can be found in Feyerabend, for example in the paper titled "Realism and Instrumentalism..." (p. 199): "we never know in advance which theory will be successful and which theory will fail. It takes a long time to decide this question, and every single step leading to such a decision is again open to revision. Nor can the absurdity of a point of view count as a general argument against it". See also Feyerabend, "Knowledge without Foundations...", p. 75.

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idea can be useful to increase knowledge, ⁹⁵ as no interesting idea is ever completely suppressed, no matter how little evidence there is to support it. ⁹⁶ Furthermore "there is no guarantee that the known forms of rationality will succeed and that the known forms of irrationality will fail. Any procedure, however ridiculous, may lead to progress, any procedure, however sound and rational, may get us stuck in the mud". ⁹⁷

This last recommendation also expresses Feyerabend's opportunism, allowing "whatever procedure seems to fit the occasion". ⁹⁸ Scholars should be effective in achieving the stated purpose of their activity. They should use every opportunity to solve a problem, no matter how absurd or irrational that opportunity may seem at first glance.

However, these recommendations are not absolute prescriptions. Anything goes is therefore just another heuristic tool added to a large conceptual toolbox, which should be used skilfully (i.e. according to the specific situation). Literally any slogan, including anything goes, gets in the way of doing science when it is not adapted to a specific research situation. ⁹⁹

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ter to Lakatos, dated March 1973 without a precise date, in: Lakatos and FEYERABEND, For and Against Method..., p. 324, see also FEYERABEND, Science in a Free..., pp. 127–128, 179, 189). "I regard every action and every piece of research both as a potential instance of the application of rules and as a test case: we may permit a rule to guide our research, or the kinds of actions we are interested in, we may permit it to exclude some actions, to mould others and our activities to suspend the rule or to regard it as it as inapplicable even though all the known conditions demand its application. [...] No system of rules and standards is ever safe and the scientist who proceeds into the unknown may violate any such system, however »rational«. This is the polemical meaning of the phrase »anything goes«" (FEYERABEND, Science in a Free..., p. 165).

⁹⁵ This idea appears in Feyerabend's "How to be..." (p. 100) and in "Problems of Empiricism..." (p. 182), when he referred to the following statement by Mach: "as a means of research, any idea is permissible which can help and really helps [...]" (Ernst MACH, **Die Principien der Wärmelehre**. **Historisch-kritisch entwickelt**, Johan Ambrosius Barth, Leipzig 1900, pp. 362–363).

⁹⁶ See Paul K. Feyerabend, "Al termine di una passeggiata non filosofica tra i boschi", in: Paul K. Feyerabend, **Dialoghi sulla conoscenza**, Gius. Laterza & Figli Spa, Roma-Bari 1991, p. 71 [61–114].

⁹⁷ Feyerabend, "Changing Patterns...", p. 368, n. 1 [italics in the original].

⁹⁸ Feyerabend, Against Method... (1988), p. 10.

⁹⁹ See Feyerabend, "Concluding Unphilosophical...", p. 503.

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5. Summary

In this article, the basic components of Feyerabend's epistemological anarchism are discussed. Its first component is Weltanschauungen analyses. According to this approach, evaluations and methodological decisions, and the content of newly developed scientific claims, do not depend solely on facts and logic, observation and sound thinking, since scientific theories do not arise in an intellectual vacuum. Then the general assumptions of this anarchism are presented: the cosmological assumption (the world is so complex that it cannot be explained by a predetermined set of research rules); the methodological assumption (anarchism allows any idea of progress to be realised); the epistemological assumptions (not only is science an efficient way of acquiring knowledge and what is called science is not an orderly system of non-contradictory claims); the assumption of the way society and culture develops through competition and social exchange. These are followed by a presentation of Feyerabend's aims for epistemological anarchism. In the final section, the explanation is suggested why this anarchism is a recent move in the evolution of 20th century philosophy of science. I also explained what this specific approach to knowledge that frees science from the myth of a one-size-fitsall method consists of, naming it "methodological fallibilism".

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