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PAUL FEYERABEND ON THE SCIENTIFIC WORLDVIEW:TOWARDS QUESTIONING THE SCIENTIFIC UNIFORMITY

The purpose of the following article is to draw attention to main problems of scientific values as they were stated by Paul Feyerabend. Various philosophers and epistemologists have always tried to prove chosen principles and objectives, but only few dared to jeopardize their fundamentals. Stereotypes of searching for ultimate truth ceased to hold; however, scientific coordinates are still not qualified. Underlying ambiguities often remain unarticulated. Among those who ventured to shed light on them were the philosophers of post-positivistic branch. One of those who questioned science values in social, cultural, and philosophical approaches the most rigidly was Paul Feyerabend. By means of typical political concepts (such as ideology and propaganda) he detected basic objectives of scientists. Our main **methodological tools** in this research are comparative analyses of the sources and immanent critique of Feyerabend's arguments. **The scientific novelty** is based on our core objective to clarify substantial obstacles for homogeneity of science. Does such homogeneity or unity exist at any level? Feyerabend's answer is a weak "yes". He accepts such unity only as a useful assumption or a myth. In one of his latest books, Conquest of Abundance, he calls it a "flag" for the "people doing science." As Feyerabend diagnosed faults of relativism, instrumentalism, and realism – all of them are threatened by the same menace of being invalid to response the world "at face value" – we have to deal somehow with topics denounced by him. In **conclusion**, we show important implications for the creation of a specific worldview at the intersection of philosophy and science. Considering a number of negatives, in the article we elicit fruitful ideas of Feyerabend, and contextually question them without resorting to a superficial reproach.

Key words: Paul K. Feyerabend, Xenophanes, epistemological anarchism, scientific uniformity, ideology, abundance of nature. .

Introduction

Resorting to the classical comparison of Paul Feyerabend and Thomas Kuhn, Ian Hacking once emphasized quite a catchy opposition between them. In *The Social Construction of What?* he mentions that the very idea of exposing ideology (first of all, the ideology of science) distinguishes these two. In case of Kuhn, it lies in unmasking; controversially, in case of Feyerabend, it implies just *opposing* this type of ideology and "challenging at its own level" [12, Pp. 97-98]. Hacking seeks confirmation for his thesis in social background and even in types of personalities in order to confront two philosophers on the matter of treating contingency: "entirely contingent" new paradigms of Kuhn is treated much stronger than "rather inevitably" developed alternatives postulated by a "wonderful pluralist" Paul Feyerabend. As we may see here, the pathetic focus on pluralism played a cruel joke on Feyerabend. In such way Hacking regarded the author of *Science in a Free Society* as unfitting into the idea and matter of social construction. Contrary to Hacking, Hans-Jörg Rheinberger considers Feyerabend to work out "contingency in the development of the sciences … to a far higher degree than by any of the thinkers discussed so far." [17, p. 63].

What might shed some light on the problem is his questioning the uniformity of any worldviews—mostly of Western Civilization and so called "Monster Science". This topic was touchy for Feyerabend since the very beginning of his epistemological anarchism with printing of *Thesis on Anarchism* (1973) and the first edition of drastic *Against Method* (1975). The question about scientific methodology and its essential limitations becomes the question of much higher levels—science, religion, culture, and world politics become the object of his meticulous eye. Resorting to the analogy with Dadaistic movement, Feyerabend bravely accuses contemporary science of be-

ing ruled by ideology and commerce [8]. It is quite easy for Feyerabend to make a jump from, for instance, quantum physics to Aristotle and then, let it be, to nowadays decline of Mill's liberal values. For instance, Feyerabend was for a long time highly impressed by B. Brecht: he even regretted a bit that he had not become an actor in the Brecht's theatre. In assessment given to Brecht's *Life of Galileo* Feyerabend writes: "A good play … forces us to judge reason rather than use it as a basis for judging everything else."

Appealing to the magic of theatrical performance, Feyerabend, at the same time, referred to the limitation of pure scientific approaches on accessing World. Such exercises of intellectual flexibility might be perceived as a real attempt to show "the richness of being" in every sphere no less than just as a screen to hide argumentative blanks.

The same aim we meet in his posthumous *Conquest of Abundance*. The core antithesis of the book is rendered in the subtitle: "Abstraction" is on the one hand, and "Richness of Being" is on the other. Publication of an unfinished manuscript *Conquest of Abundance*, we may note, seems to be a bold editor's intervention and expected exposure at the same time. To say the truth, it is commonly believed that a fragmentary text helps to open and decode messages that could be hidden in a well-slicked text fiber. However, in case of Paul Feyerabend, it hardly seems to be decisive: he is honest to the idea of unmasking the "Monster Science" all the way, on each page and in each book where he touches this topic.

Purpose

The aim of this article reflects the way in which Feyerabend formulates the idea of his book *Conquest of Abundance*. It might sound rather didactic since we are going to talk about reasons why it is so incorrect and dangerous to disregard abundance, and what consequences such ignorance might bring. Feyerabend answers Hacking's accuse of contingency lack by posting a universal and essential ambiguity in the center of his own argumentation. Naturally for physicist and a science philosopher, Feyerabend's explanations mostly lie in the territory of quantum physics. But what is more interesting for our research, he also makes steps to shed light on the problems of scientific worldview in much wider humanitarian scale.

Methodology

In order to understand and clarify strengths of Feyerabend's ideas about ambiguities and specialties of the very nature of scientific enterprise, we are going to pay much attention to the analysis of his writings, especially *Conquest of Abundance*. We are using comparative analyses of his texts and resort to immanent critique in order to broaden our range of understanding arguments of this philosopher.

Main Part

To start with, let us highlight the core ideas. As it is expected, in *Conquest of Abundance* we find continuation of his *Against Method*, *Farewell* to Reason, or (his least favorite) *Science in a Free Society*. The central idea of unmasking ideology and propaganda retains. In a bit changed form, Feyerabend develops his considerations about tenacity: he focuses on crucial ambiguities which go through everything in the world—scientific theories, cultural features, or political changes. He continues condemning all the absurd attempts of any abstract theories or logics to obtain Being or so called Absolute Reality as they are. In this book, Feyerabend reflects about homogeneity of science, its aims, connections between science and reality, science and ethics. He is concerned about to what extend may science respond the world "at face value". However, it is much more interesting that in *Conquest of Abundance* we face with more clarified ideas about realism, relativism, instrumentalism, and dogmatism—those notions, which he had always juggled. Probably, we should agree with the editor Bert Terpstra on the matter that *Conquest of Abundance* brings us a kind of a "worldview" [4, P. xviii]. Moreover, it is a philosophical worldview about a scientific one. This book became a succulent fruit of many years of work as a physician and then, the rest of live, as a philosopher who had the courage to succeed in an initially alien discipline. Here Feyerabend challenges scientific uniformity through the prism of reasonable analyses of peculiarities of a territory he calls a *scientific worldview*.

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Naturally, the very topic of scientific worldview is not newly introduced by Feyerabend. However, his approach has received some development. What Feyerabend criticizes as "Monster Science", Thomas J. McFarlane in *Questioning the Scientific Worldview* defines as scientism. The latter exculpates science itself as just "a method for systematically investigating and organizing aspects of reality," but not as a worldview: science, in contrast to scientism, doesn't claim to be the one and the only way of knowing reality. He opposes materialistic worldview, which he reasonably equates with scientism, which was, by the way, seriously undermined by quantum physics. McFarlane echoes with Feyerabend when stresses that "when we are not aware of its [worldview's] conventional nature, we mistake this conventional reality for ultimate reality" [14].

Surely, it is not the only one example of correlation between Feyerabend and other contemporary critics of scientism. There are a lot of books and researches on quantum mechanics and its correlation with ideas of religion, culture, society, or common sense. Some of these books are aimed to answer the question of "how consciousness creates the material world" [10], the other of "how life and consciousness are the keys to understanding true nature of the universe" [14].

In case of Feyerabend, the very argumentation towards rejecting domination of "Monster Science" (and, naturally, scientism) needs a special approach. It is no less interesting than the statement itself. What is his reason to discuss *the uniform scientific worldview* and its drawbacks? To say nothing of classical physics and mechanics, Feyerabend challenges claims for unity even in such scientific stars of the XX century as "statistical thermodynamics, molecular biology, quantum chemistry, and superstrings." He stresses that even these scientific branches did not work out "the scientific view of the world" [4, P. 154]. It seems, the reason to ask whether there is (or was) a unite scientific worldview ("the scientific worldview") lies in attempt to clarify how the science works and simultaneously in trying to show weakness and intellectual bankruptcy of Truth-oriented theories of knowledge once again. Based on the principles of epistemic pluralism, Feyerabend defends the right to choose a worldview. He speaks for personal choice and against "chauvinism of special groups" [4, P. 159], but, as answering in advance to his critics (such as philosopher Joseph Agassi or biologist John Wilkins), he, nevertheless, agrees to give special status to science. At the same time, he does it in a quite typical for him ironical manner: "in a world full of scientific products scientists may be given a special status just as henchmen and generals had a special status at times of social disorder or priests when being a citizen coincided with being the member of a church" [4, P. 160].

A single worldview, remarks Feyerabend, "is either a metaphysical hypothesis trying to anticipate a future unity, or a pedagogical fake, or it is an attempt to show, by a judicious up- and downgrading of disciplines, that a synthesis has already been achieved" [4, P. 154].

But the higher synthesis has not been achieved yet. It remains as a phantom goal, but it is useful ("like a flag") "for people doing science" [4, P. 160]. In other words, unity destroys uniqueness. Western civilization, as a creator of the "Monster Science," has always been a boxing pear for Feyerabend. In the *Conquest of Abundance*, as in *Farewell* to *Reason* or *Tyranny of Science*, he criticizes its progressive educational aspiration of neo- or pseudo liberal type: "When Western civilization invaded the Near and Far East and what is now called the Third World it imposed its own ideas of proper environment and rewarding life" [4, P. 159].

Firstly, it sounded in *Against Method*, enough direct and concrete: "When Western Civilization invaded what is now called the Third World it imposed its own ideas of a proper environment and a rewarding life. It thereby disrupted delicate patterns of adaptation and created problems that had not existed before"[8, P. 248].

Being a part of this civilization, Feyerabend confesses that because of lack of appreciation to another ways of living, Western civilization finally created more problems than benefits.

What are these problems like? He was probably right when accused the West in attempts to establish hegemony over the "weaker", but still it was a point of view from inside of this civilization-precisely the same as criticizing science directly from inside. Subjectively, he had the right to do it, but could he catch the situation in a whole? Nu-

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merous examples of destructive influence brought by disregarding "a sober view of scientists" persecuted and reproached Feyerabend even after his death. Aforementioned Australian biologist John Wilkins, in one of his philosophical speeches (*How not to Feyerabend?*), argues against overthrowing science in such way: "Feyerabend's agenda has led to the loss of freedom, not increased it. His naivety about how democracy functions, just like his naivety about the policies of the Nazis as a young man, allows tyranny to flourish"[20].

Indeed, Feyerabend constrainedly agreed to be a naïve teenager when taking his own part in the Second World War. In *Farewell to Reason*, he confesses to be a "book worm not a *mensch*" [5, P. 312]. But he justifies it by the fact that it was not his choice (like Popper was not his dreamt teacher since the latter had appeared in his life only after Wittgenstein's death: Popper never became a real guru for Feyerabend, no matter how many examples of Popperian impact on Feyerabend we can find).

The other problem is whether his epistemic anarchism and science criticism really fueled tyranny, previously sentenced by him. To be unbiased, it is useful to consider his argumentation carefully some more. *In Farewell to Reason*, Feyerabend focuses on the ambiguity of good intentions. Everybody remember a famous proverb that says: "The road to hell is paved with good intentions." Definitely, Feyerabend is not like Virgil or Saint Bernard of Clairvaux, nonetheless he is in his own way engaged in the discourse of Good and Evil. He insists: "The best education consists in immunizing people against systematic attempts at education" [5, P. 316].

Feyerabend undertakes no ethical maxims. Cultural, social, natural, business conditions determine the coordinates for Good and Evil. Deeply and cynically relativistic (from the point of view of Christianity, for instance), such approach might be to some extent attributed to Feyerabend. On the other hand, it is still too early to draw conclusions.

Feyerabend criticizes "the Chinese astrophysicist and dissident" Fang Lizhi for the defense of civilization and its universal laws (such as human rights, progressive science, and democracy). Expectedly, the main issue of his critic is exactly Fang's obsession with science (or, as Feyerabend calls it, "Monster Science") [4, P. 243]. Feyerabend argues against universality of science since there are many laws, principles, and methods that are typical for one discipline (he recalls hydrodynamics) and invalid for others (such as elementary particle physics). Notably, differences in principles and application of laws show disunity, and even critics of Feyerabend admit that; however, with clarifying (or sometimes rejecting) his "principle of tenacity" [19, P. 45]. On the other hand, Feyerabend realizes and even stresses that science is tightly connected with *metaphysical assumptions* (he uses an example of Darwin who insisted on unproved hypothesis about the time when life on the Earth started, or Einstein who insisted on his theory of special relativity which clashed with evidence very soon produced by Lorentz, Poincare, and Ehrenfest) [4, P. 245].

So, Feyerabend leads to the conclusion that differences cannot destroy a "metaphysical assumption" or "ideal" that scientists sing is one chorus. But metaphysics as an instrument for scientists themselves (which helps them hold the theory, and believe in it even without all needed body of evidence and proof) differs from imposing all the people to believe in modern science as Heaven on Earth. According to Feyerabend's point of view, science no less than other practices leads to simplification. Moreover, more than any other, it leads to substitution of concepts and deceives. So imposing this or that point of view on reality is nothing else than *totalitarian intentions*, carefully camouflaged in a wrapper of Human Rights and (it is one of Feyerabend's frequently used examples) "gross national product." He insists that what the Western civilization does is definitely the same. And it is important to mention that Feyerabend directs his criticism on the eastern thinker, so as Fang Lizhi is the one who swallowed the appetizing Western hook: "What is not to be welcomed is a universality that is enforced, either by education, or by power play, or by 'development,' this most subtle form of conquest" [4, P. 264].

Obviously, for Feyerabend, science is such a form of conquest if treated as a "uniform entity." Arguing with an imagined "modern reader," this philosopher constantly opposes the idea of unity of a modern science (quantum physics, biology, hydrodynamics included), its coherent approach and

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ability to become "the measure of reality." Looking at his summary concerning the idea of multiplicity among scientists we notice that for Feyerabend "*this is a historical fact, not a philosophical position*" [4, p. 191]. There are scientists "who want to tie research to events, permitting 'strong inferences';" however, there are those who disregard "big problems." So, Feyerabend shows that celestial mechanics, general relativity, antique atomism, epidemiology, demography, genetics or spectroscopy are on the opposite sides of the barricades without being less successful in "confirming the notions of reality implicit in their theories" [4, P. 192].

So Feyerabend insists: scientists are the same different independently from the century or level of progress. Science is still a "war on many fronts" [4, P. 194]. Moreover, not only scientific issues gained aforementioned success-there were and there still are a lot of other, unscientific or antiscientific, practices that have gained success in making prophesies and solving problems on the same area-the area of Nature-no less than scientists. Therefore, Feyerabend, famous for his reputation of a defender of nontraditional medicine and acupuncture, says: "There is no reason why I should disregard what happens outside of it [science]" [4, P. 195].

As a metaphor, he uses the postulation of Pseudo-Dionysius Areopagita who reflected (or, better to say, mediated) about the names of God, and finally came up to conclusion that God is ineffable. Basic (Ultimate) Reality, Being, Nature, and God-all these substances are definitely ineffable. Nevertheless, this ineffable essence "may respond in a variety of comprehensible ways" [4, P. 196]. At the same time, Feyerabend considers it wrong when "many scientists identify the particular manifest reality they have developed with Ultimate Reality" [4, P. 214].

The theory or approach has a chance to become successive if and only if "God, or Being, or Basic Reality reacts in a positive way" [4, P. 215]. In this way Feyerabend justifies his own *unintended relativism*, which we cannot but mention in the book, and which naturally reflects just "an empirical fact," not a "philosophical position." What is more, Feyerabend criticizes traditional relativism for its incomprehension of the way things actually are: cultures are not that closed and well-defined as relativism assume: cultures change in front of challenges; therefore, they are temporary stable, or, to be more precise, they are not stable at all-they are "never well defined" and "always ambiguous." The same Feyerabend admits about science: probably no one will argue it is not a stable substance, but for Feyerabend it means that generalizations about science are as robust as the surface of wetlands: "science may change again" [4, p. 216].

"In the name of science, do not imprison it!" Such an exclamation might arise when reading these compelled (*or unintended*) relativistic considerations of Feyerabend. But science and, to be more correct, sciences are already imprisoned. They develop inside some social group, rise from specific collective and scientific requests, etc. They are products of a worldview-now it is even not crucial whether it is uniform or not. "Hopelessness" consists in the fact that it simply takes place. Feyerabend enumerates three physicists (Przibram, Ehrenhaft, and Thirring) who were afraid of such a monster as a scientific worldview. The problem they created for themselves was a ghost worldview. Feyerabend insists: like Mach, Boltzmann, Franz Exner, and members of the Vienna Circle before them, they were not always aware of being ruled by some other, different from objected by them, worldview [4, P. 162]. Feyerabend argues that worldviews are a sufficient part of scientific process-gaining and creating knowledge included. And definition of a worldview, proposed by Feyerabend sounds like this: it is "a collection of beliefs, attitudes, and assumptions that involves the whole person, not only the intellect, has some kind of coherence and universality, and imposes itself with a power far greater than the power of facts and fact-related theories" [4, P. 164].

So worldviews are very strong and act like a boa constrictor eating the rabbit. Saying "yes" to Feyerabend's point of view, we have to agree that not only religious fanatics, but many of us, people,-scientists included-belong to this army of "rabbits."

Scientific theories, according to this idea, are also products of a worldview. Moreover, any theory itself might to some extend be treated as a worldview. "Collection of beliefs, attitudes, and assumptions" is the background for our sugges-

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tions, empirical experience, and experiments. So is there anything free from a worldview? In other words, is there anything that is not "theory-laden"? Ian Hacking, while analyzing Feyerabend, rightly notes that Feyerabend "says that there is no point to the distinction between theory and observation"[11, P. 173].

Everything around is permeated with theories, better to say, worldviews. They are different and thus complicate not only understanding, but interchangeability as well. So it is difficult to talk about independency of theoreticians (people who are the bearers of some theory) on the one hand, and no less difficult to stick to the preassigned uniformity on the other hand. Feyerabend treats attempts of theoreticians to be independent while describing the World as deceiving themselves: "[T]he fact that some scientists think they have nailed things down while still coming up with revolutionary discoveries and that science students are trained to be precise in a very narrow sense and have to catch up with ambiguity later on only shows to what extent we are ruled by ideology and how little attention we pay to the principles we are ready to explain and defend at the drop of a hat. We are deceived by ideology and deceive it in turn" [7, P. 86-87].

To say the truth, we quite often find the verb "to deceive" in Feyerabend's works. Ideologies deceive scientists, gurus deceive their followers, philosophers of science deceive themselves while arranging unite "Monster Science", and so on. Naturally, Feyerabend's theory of suspicion alarmed his colleges and increased the army of critics. Donald Gilles, in his personal reminiscences, asks a rhetorical question about Feyerabend: "Was Feyerabend really trying to give a correct account of science in his 1975 book *Against Method*? Did he really believe that "anything goes", and that scientific medicine should not be considered superior to the ministrations of witch doctors?" [9, P. 13].

"Metaphysical or, as one might say, a worldview backing" Feyerabend discovers everywhere-even in the roots of instrumentalism. Realism as "the idea that the world as laid out in space and time is independent of human perception, thought, and action," is absorbed in "Grand dichotomies" and is manifested in Christian Genesis, in Gnostic movement, and in Greek philosophy [4, P. 168-169]. Feyerabend points that the same happens with the "fundamental science" (meaning science until the end of the 19th century) where "real world" was regarded as "colorless" and "odorless" entity "with minimum change." This pattern influenced even Einstein who was an empiricist but still believed in illusory nature of time distinctions between past, present, and future [4, P. 169]. Feyerabend analyses a "rumor" about realism-as the idea which shows that realism reflects understanding world as a spatiotemporal essence totally independent from us, humans. Obviously, this rumor contradicts Feyerabend's idea about a worldview since a worldview is ultimately connected with people who are its media. He stresses: "The rise of sciences depended on a blindness, or obstinacy, of exactly the same kind [as criticized by them all forms of religion]" [4, P. 165].

His convictions lead to the conclusion that changing of basic ideas which constitute a worldview simultaneously changes a worldview itself. The question is *how* and *why* these changes arise. Any possible answer needs a historical construction. To the honor of Feyerabend, we find out that for him "historical" is an antonym to "anachronistic". In the *Conquest of Abundance*, Feyerabend admits that his exploration won't be full and overwhelming: he selects events on his own to create the picture of a worldview *which he supposes to be the most accurate.* What is more, the book should have had a final conclusive chapter. Consequently, it was not written [4, P. 17]. Nevertheless, we face a corpus of texts to deal with. Before the matter concerned inevitability of scientific worldviews and difficulties their unintentional generalizations bring.

Now it is worth taking a more serious look at the point of how the very idea of scientific (and cultural) uniformity arose, and where Feyerabend found reasons to formulate his ideas about the "Monster Science."

Feyerabend searches for historical reasons and examples in ancient culture and philosophy. Through the world of Homeric "puppetlike" heroes, he comes to Xenophanes and Parmenides, and later on their critics and interpreters Plato and Aristotle. For discussing problems of understanding between different outlooks and ethical approaches, Feyerabend chooses the case with Ho-

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meric Achilles. The latter-no matter real or fictional-became a real irritant for the whole Iliad. In the chosen passage, he refused to take gifts instead of humiliation of his dignity. Explanation is simple: Achilles had different ideas about honor than those of his offender Agamemnon and his henchmen Aias, Odysseus, and Phoenix.

It is commonly recognized that Homeric world used to be a firmly united entity, even though it consisted of aggregates ("puppets"): "complex and well-defined relations joined nature, humans, and the Gods" [4, P. 25]. But were Homeric warriors indeed "put together from relatively independent parts"-of events such as dreams, Gods, anger, and so on? Feyerabend partly agrees with Benjamin Lee Whorf and Michael Baxandall who argued that "language shape ideas" and is a "conspiracy" that "simplify and arrange experience into manageable parcels" [4, P. 27]. However, Feyerabend overcomes the limits of language as a reservoir of managing experience; he breaks the boundaries of a territory of "conspiracy," appealing to "existence of antagonistic conspiracies" [4, P. 29]. For him, in case of Homeric epics, it was not only poetry (not only language), but also artworks, buildings, customs, learned treatises that "shaped a form of life" [4, P. 30].

Yet actually it is not so radically important here which "conspiracies" to enumerate. This case is worth mentioning since right here Feyerabend raises an important question: "how did people get out of it?" [4, P. 31]. Alternative answers: a) destroyed; b) transformed. For Feyerabend, it is a crucial question about changing of the worldview no matter how instable and far from rules this notion is: "If the history of thought depended on a discourse of this kind [constructed according to precise and merciless rules] than it would consist of an ocean of irrationality interrupted, briefly, by mutually incommensurable islands of sense" [4, P. 32].

Don't we face dozens of facts and evidences treated as irrational, marginal, or even as a pure nonsense? Naturally, we do-beginning with mystics or astrology, and up to the witnesses of the UFO. Moreover, for those who raise "precise and merciless rules" to the level of a criterion, Feyerabend, the author of a tricky "anything goes," proposes another challenging statement: "*Potentially every culture is all cultures*." He stresses that differences between "languages, customs, art forms" are differences in "accidents of location, history," but not in "clear, unambiguous, and immobile cultural essence" [4, P. 33]. The situation in science, Feyerabend emphasizes in a lengthy footnote, is the following: "Despite a persistent fog of objectivism and despite the relativistic tricks inspired by Kuhn's idea of paradigm, many scientists have lived and are still living with ambiguity and contradiction" [4, P. 33].

Feyerabend was inspired by Renato Rosaldo's *Culture and Truth* and his central idea that it is boundary problems not central events that teach us about the full resources of a culture: "…practices that seem legitimate when referred to a close framework cease to be sacrosanct. If every culture is potentially all cultures, than cultural differences lose their ineffability and become *special and changeable manifestations of a common human nature … and should be treated as such"* [4, P. 34].

Environment and situation are able to create possibilities for various conceptual, language, and practical deviations. Moreover, for Feyerabend, it really doesn't matter seriously whether we are talking about real people and state of affairs or about inventions. Both Homeric Achilles (who quite possibly could have been a fiction) and a real philosopher Xenophanes require "moving from logic to a richer domain of social action" [4, P. 86]. What "sounds rational" is not always rational in fact-"the existence of analogies [between the story itself and familiar patterns] warns us not to be satisfied with reconstructions of ancient texts that rely on logic and mathematics alone" [4, P. 88]. Feyerabend stresses that such "rationality" is superficial and in fact even irrational. In other words, it is anachronistic because it doesn't take into consideration the worldview of its contemporaries.

We always conquer the abundance of Nature-it would be naïve to object. Expectedly, Feyerabend did not do that as well. Returning to the aforementioned opposition historic vs. anachronistic, we shall pay more attention to the very procedure of how Feyerabend found the roots of a worldview. A good material for various anachronistic interpretations is a famous passage of Xenophanes in which he makes joke about humanlike Homeric Gods.

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His argument has got a simple and obvious structure. At first glance, it shows triumph of common sense and logic which overcome prejudices of the previous era. Feyerabend refuses that. Helmut Heit, comparing Popper and Feyerabend on the matter of treating the step done by Xenophanes, also stresses this fact: while for Popper Xenophanes is a hero of Enlightenment, "Feyerabend is not convinced and he points out that Xenophanes only mocks the traditional gods because of their anthropomorphic features, but he does not give us valid arguments against them" [13, P. 97].

Really, it is quite difficult to give a historically justified explanation what kind of impact did Xenophanes had on his own contemporaries. Again, it is a big temptation to fall into anachronism. So what Feyerabend is trying to do is finding traces in Aeschylus, or Timon of Phlius. They shed some light on the impact, which Xenophanes's ideas about God had on ancient Greece. We see that even if it had not been called "critic of anthropomorphism" that times, it would have revealed the same idea-divinity is getting rid of human features. Still Feyerabend insists that it was not such kind of critic. To throw off prejudices, it is not enough to postulate that God does not look like a next-door neighbor-Feyerabend insists that the God of Xenophanes was even more awful than Homeric Gods. It was "a monster considerably more terrible than the slightly immoral Homeric Gods could ever aspire to be. These one could still understand; one could speak to them, try to influence them, one could even cheat them here and there, one could prevent undesirable actions on their part by means of prayers, offerings, arguments. There existed personal relations between the Homeric Gods and the world they guided (and often disturbed). The God of Xenophanes *who has still human features*, but enlarged in a grotesque manner, does not permit such relations"[4, P. 54].

For understanding the development of philosophical notion of reality and generally formation of a worldview, Feyerabend encourages to pay attention to the way Xenophanes (and, later on, Parmenides) proves. What seems to be a pure logic, Feyerabend introduces into the historical and cultural context. Discussing another artifact of ancient times, the essay On *Melissus, Xenophanes, and Gorgias* concluding with the inference "God did not come into Being," Feyerabend enumerates three features of a proof used in it. So as the very argument of the essay was intended to refute the thesis "God came into being," it needed some kind of steps to be done. In order to justify that it is not pure logic but a culture-dependent issue, Feyerabend circles three features of the proof used. Among them the most interesting for Feyerabend is the indirect proof (*reduction ad absurdum* which consisted in withdrawing argument "from premise to conclusion" and "back to the negation of the premise") [4, P. 57]. Feyerabend concludes: "History, not argument, undermined the Gods." Moreover, it was exactly historical and cultural change that twisted logic. Really, even common sense tells us, there should have existed pre-Aristotelian types of logic. The notions of paleologic, mythic, or magical thinking provide the idea of somehow understood logic as well. Even though it lacks strict sequence and clarity of reasoning in the form commonly accepted since Aristotle, there still remains a room for arguing and persuading. Therefore, what postulates Feyerabend with his words "history, not argument, undermined the Gods" is a pure hint that it is something else, but not logic that makes this argument compelling. What is more, clear and unambiguous procedure of fitting arguments became so exciting and inspiring exactly because of dealing with culture-dependent ambiguities. Even though "Xenophanes liked dialectics" and thus having issued his proof; Homer was good at epic; Parmenides succeed in formulating the first "conservation law" (*Being is*) − in Feyerabend's opinion they all were not independent. Their preferences and situation affected the result. Definitely, it hardly seems that Einstein would have worked out special theory of relativity being a contemporary of Xenophanes.

Scientific novelty

The world changes, but there still are "legitimate" and standardized ways of reasoning inherited from Greeks and resulted in a notion of scientific worldview. Feyerabend pointed that throughout long history thinkers and scientists are marred by the same idea: Euclid, Ptolemy, Galileo, Newton, Darwin, modern molecular biology, etc. are crazy about "the dichotomy real/apparent" [4, P.

16]. Philosopher believes that Western civilization, once affected by this dichotomy, is still ruled by this magic. He deliberately emphasizes this dichotomy for questioning the scientific realism together with the roots and biases of scientific theories and myths. It is one of the main topics in the first volume of his Philosophical papers − *Realism, Rationalism, and Scientific Method.*

Besides there raises a question about non-scientific biases of science, Feyerabend stresses on the problem of *incoherence*. Naturally, predictability of scientific results is an advantage if they are to confirm that the theory is progressive and able to cope with some area of problems. On the other hand, predictability of events, personal features, and cultural changes is not that positive. But for Feyerabend who emphasizes that, as we saw above, "*history, not argument, undermined the Gods,*" Nature (events, people, cultures, etc.) are more essential than theories themselves. So who said that growth of ideas cannot be affected by curiosities? In this point Feyerabend echoes of Immanuel Kant and makes a conclusion: it is not proper when "first the thinkers think, then the historians report what they did" [4, P. 16]. In other words, Feyerabend urges not to raise boundaries before starting doing something (scientific research included) exactly as Kant urges no to fall into dialectical illusion.

Logical proofs are actually much (and even crucially) dependent on existential facts. That makes discussion more complicated on the one hand, and a worldview much more essential and decisive on the other hand. But does personality or social context really have opportunities to destroy Scientific Uniformity-the favored price of several hundreds of work of thousands of bookworms and bold experimenters?

Feyerabend stresses that Western civilization and modern science as its spokesman do not have the right to impose the one possible way of "conquest of abundance" and, accordingly, simplification of the world since "*the world is much more slippery than is assumed by rationalists*" [4, P. 241].

Definitely, rich world might never be totally explored-all of us remember, for instance, inexhaustible ocean expeditions of Jacques Yves Cousteau-but there are many alternative attempts to do it. Scientific results seem to be much more overwhelming than a resolution (for quite many people ridiculous resolution) of a local magician; nevertheless, for Feyerabend the letter-no matter how "downtrodden" this suppressed magician is-makes his contribution in coverage of the Nature and the World. In this case, Scientific Uniformity as a uniformity of understanding of the world is losing its ground. It does not mean that science is a disparate set of random results-it rather means that science needs competitors. And this very specification focuses on the interests of science itself.

Feyerabend's lesson is the following: any methodology or any complex of scientific approaches cannot cope with the wholeness of life. Philosopher stresses: science is not sufficient to reject Gods. It is obvious since the world as described by Feyerabend is "a dynamical and multifaced Being which influences and reflects the activity of its explorers. It was once full of Gods; it then became a drab material world; and it can be changed again, if its inhabitants have the determination, the intelligence, and the heart to take the necessary steps" [4, P. 145].

Conclusion

Science (both as a general and as a concrete term) is in not a sinless enterprise: no less than religion, it is based on metaphysical assumptions, has its limits and level of capacity to solve a number of problems. Thus any scientific judgment and any our judgment in general cannot fully explain "how the chosen approach is related to the world and why it is successful, in terms of the world" [4, P. 146]. Feyerabend's demand for common sense could be formulated so: do not limit the already limited margins of your own thinking and living by naive reliance on ghost objectivity.

Feyerabend's approach, being methodologically treated, seems to be a highly complicated enterprise. A good example of such challenge is his attempts of doing overwhelming analysis. It is much easier to make stress on similarities over the differences while constructing a framework. Moreover, it may be more relevant to disregard some not very notable marginalities just in order to, they say, separate the wheat from the chaff. But what Feyerabend really asks about we may paraphrase

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in the question “What is wheat?” Is it as obvious as it seems to be? When talking about such powerful thing as a worldview, the answer is a definite and touching “no”. And one of the trickiest things about it is difficulty in finding the roots of a worldview. How did Homeric world change into Parmenidian? How did logos conquer mythos? And did it really ever do that? Ambiguity, with which Feyerabend cleverly and skillfully plays, becomes a really sharp weapon against any attempts to criticize him step by step. He doesn’t write in a manner of making “dry” conclusions or final judgments-just the opposite! His texts are rather series of disillusionments about different straight ahead ways of obtaining reality, or, better to say, *abundance of Nature*.

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ПОЛ ФЕЄРАБЕНД ПРО НАУКОВИЙ СВІТОГЛЯД: ПРОБЛЕМАТИЗАЦІЯ УНІФОРМНОСТІ НАУКИ

Метою даної статті є привернення уваги до сформульованих Полом Феєрабендом головних проблем, які стосуються наукових цінностей. Філософи й епістемологи завжди намагалися довести обрані принципи й завдання, але небагато з них зважувалися поставити під ризик власні фундаментальні підвалини. Стереотипи пошуку остаточної істини не справдилися, а координати для науки досі не створені. Невизначеності часто лишаються не до кінця проясненими. Серед тих, хто ризикнув пролити на останні світло, – філософи-постпозитивісти. Одним з тих, хто найбільш жорстко проблематизував цінності науки в соціальному, культурному й філософському плані, був Пол Феєрабенд. За допомогою типово політичних концептів (таких як ідеологія чи пропаганда) він викрив головні завдання науковців. Головний методологічний інструментарій дослідження - компаративний аналіз першоджерел та іманентна критика філософування Феєрабенда. Наукова новизна полягає у висвітленні суттєвих перешкод, які стоять на заваді гомогенності науки. Чи така гомогенність або єдність узагалі існує на будь-якому рівні? Феєрабенд припускає, що лише до певної міри «так». Цю єдність він сприймає тільки як корисне припущення чи міф. В одній зі своїх пізніх книжок, «Підкорення надміру», називає це «прапором» для «людей, які займаються наукою». Оскільки Феєрабенд визначив хиби релятивізму, інструменталізму і реалізму – усі вони перебувають під однаковою загрозою неспроможності відповідати дійсному світові – наше завдання в тому, щоб визначитися, як працювати з порушеними ним темами. У висновку показано важливі підстави для постання специфічного світогляду на межі філософії та науки. У статті ми висвітлюємо плідні ідеї Феєрабенда, враховуючи недоліки і проблематизуємо їх без поверхового критицизму.

Ключові слова: Пол К. Феєрабенд, Ксенофан, епістемологічний анархізм, уніформність науки, ідеологія, надмір природи.

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ПОЛ ФЕЙЕРАБЕНД О НАУЧНОМ МИРОВОЗЗРЕНИИ: ПРОБЛЕМАТИЗАЦИЯ УНИФОРМНОСТИ НАУКИ

Цель данной статьи – привлечь внимание к сформированным Полом Фейерабендом ключевым проблемам, касающимся научных ценностей. Философы и эпистемологи всегда пытались доказать собственные принципы и задачи, но лишь немногие из них отваживались рискнуть собственными фундаментальными

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основами. Стереотипы поиска окончательной истины не оправдались, а координаты для науки до сих пор не обозначены. Неоднозначности зачастую остаются не до конца выясненными. Среди тех, кто имел смелость пролить на них свет, – философы-позитивисты. Одним из тех, кто наиболее жестко проблематизировал ценности науки в социальном, культурном и философском плане, был Пол Фейерабенд. При помощи типично политических концептов (таких как идеология или пропаганда) он изобличил главные задачи ученых. Главные методологические инструменты, используемые в исследовании, – это компаративный анализ первоисточников и имманентная критика философствования Фейерабенда. Научная новизна состоит в обозначении существенных препятствий, которые мешают гомогенности науки. Существует ли гомогенность или единство на любом уровне? Фейерабенд предполагает, что «да», но лишь до определенной степени. Такое единство он воспринимает только на уровне полезного допущения или мифа. В одной из своих поздних книг, «Покорение излишества», он называет это «флагом» для «людей, практикующих науку». Поскольку Фейерабенд предначертал ошибки релятивизма, инструментализма и реализма - все одни стоят под одной и той же угрозой неспособности соответствовать действительному миру – наше задание состоит в том, чтобы определиться, как относится к темам, затронутым им. В заключении показаны важные основания для появления специфичного мировоззрения на границе философии и науки. В статье мы раскрываем плодотворные идеи Фейерабенда, рассматриваем недостатки и проблематизируем их, не прибегая к поверхностному критицизму.

Ключевые слова: Пол К. Фейерабенд, Ксенофан, эпистемологический анархизм, униформность науки, идеология, излишество природы.

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