Paul Feyerabend: from rejection of method to criticism of science and its authority

بول فيرابند: من نبذ المنهج إلى نقد العلم وسلطته

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الملخص:

لقد عرف عن "فيرابند" اشتغاله بتاريخ العلم وفلسفته، بعد دراسته لعديد من المباحث والتخصصات العلمية والمعرفية، والفنية حتى، لينتهي إلى إعلان مقاربته الفلسفية المسماة 'الفوضوية'، والتي قصد بها التعدد والتنوع، سواء على مستوى المنهج أو النظرية. وبذلك، يكون قد جاهر بالخروج عن التقاليد الكلاسيكية التي رسّخت الدفاع عن وحدة المنهج ووحدة العلم، وما يتصل بهما من العقلانية والموضوعية والمنطقية واليقين...إلخ

ومن خلال مقاربته الابستيمولوجية، يكون "فيرابند"، قد عمل على تقويض تلك التقاليد، ناحيا بالعلم ومنهجه منحى جديدا يؤسس للتعددية والحرية، وما يترتب عنهما من رفض لقداسة العلم والتغني بتفوقه على غيره من الفاعليات والمعارف الأخرى المسماة 'لاعلمية' (الأسطورة، التنجيم...)، مناديا بوجاهة وندية هذه الأخيرة، بل وإمكانية تفوقها على العلم ونجاحها، حيث أخفق وسجل انتكاسات.

الكلمات المفتاحية: فيرابند، فوضوية، منهج، علم، لا علم، حرية.

Summary :

Feyerabend was known for working on science and its philosophy, after he had studied many researches and scientific specialities and also artistic ones, to end up with

anouncing his so-called ‘anarchist’ approach, through which he meant plurality and variety, either on the level of method or the theory. Thus, he declared his departure from the classical traditions that established the defence of the unity of method and science too, and their related, like: rationality, objectivity, logicity and certainty…etc .Through his epistemological approach, feyerabend has worked on criticizing and demolishing these traditions, taking the science and its methodology to a new path that establishes to pluralism and freedom, and their resulting, rejection of science sacredness and the extolling of its superiority over other activities and knowledges, calling for the validity and rivalry of the latter, and even the possibility of its superiority over science and its success, where it has failed and recorded setbacks.

Keywords: Feyerabend, anarchism, method, science, non science, freedom.

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1. INTRODUCTION :

The Austrian philosopher Paul Feyerabend [1924-1994] is considered one of the most prominent and controversial figures in the history and philosophy of science of the twentieth century. He was the one who aimed his arrows of attack at one of the most important components of modern science, namely the method, which, at least for some, constitutes the corner-stone of scientific construction (e.g., positivism, especially, logical positivism); he was not content with prejudice against the method and strongly opposing it, but extended his criticisms to science itself, after it became dominant in contemporary societies and became a god to its supporters, giving it a character of holiness, and it became like a new religion, replacing the old religion (the religion of the Church and its clergy). This prompted Feyerabend to address this issue within his epistemological approach labeled ‘anarchis’, by which he means 'pluralism', as we will see throughout the analysis. The question arises: Why does Feyerabend oppose method? Is there a justification for doing so? Why does he assault science and criticize the authority it has come to possess? Is there anything that makes his opposition to science valid and legitimate? How valid, or rather, relevant is his argument? These are the questions we will try to treat in this article.

2-FIRST PRINCIPAL TITLE: Feyerabend's theory on philosophy of science:

2.1-First Subtitle: A Preliminary Reading in (Against Method):

Before addressing his point of view, it is worth noting that among the books written by Feyerabend, (against method) is considered the most important book that was widely popular, which gave its author a wide fame, as evidenced by its translation into nearly twenty languages, and this only until the mid-1990s. This book remained the main reference for Feyerabend's thinking, and formed the main line and backbone

of his epistemological approach and the pillar of his entire philosophy, as it is considered -according to the reviewer of the translation of his book (The Tyranny of Science) 'Abdullah Al-Shehri'- One of his most important works in the field of philosophy and history of science, indeed the most important of them all, comparing it to the achievement of the American researcher 'Thomas Kuhn' represented in his book (The Structure of Scientific Revolutions), appreciating the great benefit that their readers and examiners will reap, if they absorb and imbibe their contents "The book 'gainst method' is one of his most important books in the philosophy of science. It is perhaps not an exaggeration to say that it is considered, along with 'The Structure of Scientific Revolutions' by the historian and philosopher of science Thomas Kuhn, the most serious book ever written in evaluating the methodology of science and the development of its theories, and whoever reads them and digests their central issues should develop a high critical faculty that can only be matched by a philosopher of science"1.

In view of the great importance and value of his book (Against Method), it is imperative for us to take a general survey of its contents, to say that this book consists of two main parts, the first section deals with epistemological and logical problems and; while the second section concerns some social, political and even ethical consequences. This is an approach that is rarely found among those who are active in the field of philosophy of science. If we refer to the works of some of the most prominent figures in the intellectual and philosophical field, in general, and the philosophy of science, in particular, such as: 'Rudolf Carnap', 'Hans Reichenbach', 'Thomas Kuhn', 'Karl Hempe'l, and the list could go on and on, we will not find a strong coupling between their writings in the philosophy of science and their achievements in other fields, or in other words, we will not find social, political, ethical, or ecological effects Moreover, even 'Karl Popper' and 'Bertrand Russell', who dealt with political, social, and ethical clauses and

problems of the kind discussed by Feyerabend, wrote mostly independently of what they wrote in the philosophy of science2.

2.2-Second Subtitle : Anarchism at the level of method (or methodological pluralism):

Unlike 'Lakatos', whom 'Feyerabend' considers a partner in anarchism, Feyerabend's reading of his anarchism is that it is reserved and tacit, while he (i.e. Feyerabend) openly declares his anarchism, without the slightest hesitation or delay, but with a frankness that exceeds all expectations, and a boldness that exceeds all limits, breaking all restrictions and crossing various barriers, and blowing up a loud bang that increased the pace and heat of the debate.'Feyerabend' gained his fame from his relativism, or rather, scepticism in the scientific method and its rules. In short, relativism attributes knowledge to the conditions of its emergence and development, making it variable and unsteady, but varying and changing from one era to another3.

As for his epistemological thesis, which is embedded in many of its features in his book (Against Method), it is based on what he calls epistemological anarchism. Feyerabend opens his grizzly book by admitting that he intends to talk about a kind of epistemological anarchism, recognizing that science itself is an anarchic act! This is an unprecedented boldness on Feyerabend's part, but what does he mean by this anarchism? First of all, Feyerabend indicates that he means 'anarchy' in its epistemological sense, not in its political sense4. He goes on to explain that by anarchy, he means multiplicity and diversity at the level of methodology, not one single method, not only in social and humanistic research, but mainly and primarily in the material sciences or the so-called empirical sciences, in which the advocates of rationality, logic, and objective rigor, such as logicians positivists, inductivists, and those in their orbit, are keen on one and only one method. This is something that Feyerabend frowns upon, revealing from the outset, that science is an anarchic enterprise, recognizing that this anarchy

is more human and more authentic, favoring beliefs and doctrines based on law and order, in encouragement of promoting real, not false, progress5.

In his book, 'Feyerabend' asks, What does an epistemologist usually do? He answers that he tries to clearly establish the criteria that allow one to assert that a discipline is or is not a science, i.e. criteria for separation and distinction, thus describing the methodology necessary for an endeavor that can lead to being scientific6. However, 'Feyerabend' wants to analyze and discuss the issue that there is no distinctive method for scientific research, a method that, if followed, will lead us to the successful acquisition of knowledge, as Feyerabend asserts that the question of method is illusory and weightless, and that science has never been held hostage to a single method Science has never been held hostage to one particular method, but is a pluralistic project, and all methods can be effective and beneficial for science, as every method is widely accepted and welcomed, with no limits, as long as it suits the nature of the problem under research, leading to its solution and thus increasing the balance of science. As for restricting scientific research to one and only one method, this is an arbitrary measure that is not in line with the history of science itself, in addition to going against the course of creative work and killing its spirit, which is necessary for achievement in science7.

'Feyerabend' goes so far as to assert that the idea or proposition that there is a scientific method that includes strict, rigid, and absolute principles that are capable of carrying out scientific research is misleading and absurd in his view, and can only be ridiculed, but more than that, it faces countless logical, historical, and practical difficulties when compared to the facts and realities of the history of science itself. This is what he always emphasizes in (Against Method) "when we carefully examine the history of science, we do not find a single rule, no matter how well accepted and based on strong epistemological

foundations, that has not been overtaken and violated at some point in time"8.

With this bold claim, “Feyerabend” wanted to completely shake the edifice that had been painstakingly built by his predecessors, boldly declaring that all methodologies has its limits and all attempts are weighty endeavors, as there are countless approaches. He favors a pluralism, or rather a methodological anarchism, which, although it may not be the most attractive political philosophy, he considers to be a better and more effective remedy for epistemology. He wrote "this study is written with the conviction that anarchism may not be the most attractive political philosophy, but it is certainly an excellent remedy for epistemology and the philosophy of science"9.

‘Feyerabend’ continues that adopting or defending anarchism is not destructive or dangerous to knowledge, but on the contrary, it pushes it to the limits of progress, which remains conditional and always contingent on the emergence and appearance of anarchist movements, even if by chance or coincidence “my thesis is that anarchism participate in progress… even if it is a science based on law and order, it can only succeed if anarchist initiatives have the right to emerge, even by chance. It is clear that the idea of a fixed method or a fixed theory of rationality is based on a naïve conception of man and his social environment”10.

In his book (Science in a Free Society), ‘Feyerabend’ notes that his book (Against Method) was the result of lectures delivered at the London School of Economics and another college of the University of London, most of which were followed by ‘Lakatos’, who intervened with his objections, and Feyerabend's aim in these lectures, as he himself declares, was to show clearly that "some very reasonable and simple criteria and rules that the philosophers considered Both scientists saw them as necessary components of rationality that had been violated in the periods following the Copernican revolution, the triumph of kinetic

theory, and the rise of quantum theory, and thus viewed them as equally necessary. I have tried to show more specifically: (a) that the rules (norms) had already been violated, and that the most prudent scientists were aware of these violations; (b) that they had to violate them and that [appealing] to the rules would not make things better but would stop progress"11.

'Feyerabend' emphasizes that when he was pursuing his studies at the University of Bristol, of the quantum theory laid down by 'Max Planck', he discovered, as he says "important physical principles were based on methodological assumptions, which are violated when physics advances: physics derives authority from ideas it broadcasts, but never complies with them in actual research, and the methodologist plays the role of advertising agencies [hired by] physicists to favor their results, but do not allow [them] to approach the project itself" 12. The most important images in the current debate on the history and philosophy of science, according to Feyerabend, is the realization that events such as the invention of atomism in ancient Greece, the Copernican revolution, the emergence of modern atomism (the kinetic theory of gases, the theory of decomposition or dispersion, stereochemistry and quantum theory), and the gradual emergence of the wave theory of light They could only emerge because some researchers decided not to remain constrained by, or inadvertently violated, clearly defined methodological rules13. This led him to declare that an idea based on solid and stable principles, which should be relied upon in the conduct of science, faces serious difficulties when confronted with the results of historical research. It is then realized that there is no single acceptable, palatable, and solidly constructed rule of epistemology, whatever it may be, that has not been breached at one point or another. According to 'Feyerabend', these breakthroughs (or violations) are not merely accidental or coincidental; nor are they the result of partial and incomplete knowledge or of carelessness, on the contrary, they are necessary for progress14, in the sense of the

progress of science itself, or so he argues in his work (Against Method).

On the contrary, we can show that most of the rules advocated today by scientists and philosophers of science as an organizational form of scientific method are either useless or weak, and the hope of one day finding a rule that will help us overcome all obstacles and impediments, just as the hope of one day finding a theory that allows us to explain everything in our world, is just a utopian dream, or rather, a distant and even impossible desire. This is why Feyerabend emphasizes, as we have said, that all methodologies have their limits, and the only rule that remains alive and valid is "all thing goes" He even categorically asserts that this principle, which is the central slogan of his anarchism, is the only one that encourages and guarantees progress, and does not hinder it15. This principle, which he considered and saw in it, exceeds the standards of reasonableness that some people sing and cheer for, and what it includes and is based on: Clarity, accuracy, objectivity, etc..., which are false and artificial claims that have no insightful connection to what is going on at the level of history in terms of events that are full and powerful in their signification, and the advocates of rationality and those seeking intellectual security and assurance spare no effort to read them vertically and learn from them, so that they do not remain trapped in their short-sightedness and victims of their narrow analyses that do not pay attention to history, which is much richer than their justification visions of dwarfism16.

It is the only principle that does not inhibit the progress of science, but it is not the only principle of a new methodology that he recommends, but it is the only way to understand history17. This is the principle to which 'Feyerabend' clung (all thing good or all thing goes) and for which he fought tirelessly; this is the main idea that captured his mind, which is bold, strange, and exciting. Therefore, he is vehemently opposed to any principle or method that is armed with the pretenses of

logic18. But is 'Feyerabend' content to defend and argue in favor of the chaos of method, rejecting its uniqueness in treating of scientific research?

2.3-third subtitle : From anarchy of method to anarchy of theory (or the abundance of theories):

It just as he emphasizes methological pluralism, Feyerabend also insists on the importance, indeed the necessity of abundance and pluralism of theories, at a time when he considered symmetry and regularity harmful not to science only, but also weakened opportunities and potential of the individual's free growth; he says in this context: "the proliferation of theories is useful for science, while monism weakens its critical capacity. The monism also puts at risk the free development of the individual"19. This is what Feyerabend passionately defends in his writings, both in (against method) or in his other works, for example, in the final chapter of (farewell to reason) which bears the same title of his principal book, in this chapter, we find him discussing a number of elements, such as the structure of the scientific mind and the role of philosophy of sciences and the authority of science…, he concludes that it is impossible to establish a unified theory of science, starting from an approach that posits that the data constituting science is not a fixed and shared structure20.

Therefore, Feyerabend does not advocate the consensus -as Kuhn made, a fierce defender of the paradigm's singularity, which Feyerabend criticizes and strongly rejects21-. Considered it requirement suitable for clergy or it is a characteristic of people who aspire to embrace a myth and surround themselves with it, or others who are trapped in a circle of fear, subjected to intimidation, even terrorization by those who abuse and oppress them, inconsistent with and defeats humanism at its core. The matter which hinders cognitive and human progress, because an endeavour forces agreement and prohibts criticism, with all the openness it entails, vitality, dynamism and pluralism of positions and opinions, is undoubtedly a deadly and

destructive endeavor to the spirit of creativity and a distortion of the process of evolution, and even distorts it to the greatest extent "… the consensus can suit a church or terrorized victims or those who would like to adopt a myth… but the diversity of opinions is necessary for objective knowledge. And that an approach that encourages diversity is also the only approach compatible with humanist ideas (in a range where the requirement of conformity imposes limits on diversity, it contains a theological element which lies, of course, in the fascination for facts, which is very distinctive to almost every empirical tendency)"22. Empiricism that Feyerabend abhors it, as long as it is fascined by facts and made them as strong evidence against theory corruption, but rather an conclusive evidence to falsify it, like Popper's point of view.

In a reading that is almost the exact opposite of this contradiction, contradicting Popper and largely agreeing with Lakatos, Feyerabend believes that there is no theory that is in complete agreement and harmony with all the facts to which it is applied. However, it is not always the theory that is wrong. The facts themselves are established by more advanced ideologies, and a disconnect between facts and theories may be a sign of progress. This is also a first step in our attempt to discover the principles that implicitly guide familiar observations23.

In emphasizing the importance of theoretical pluralism and its continuation as a permanent requirement and advantage for liberating and strengthening scientific initiative, and thus expanding the horizons of knowledge, rather than merely an initial stage, as it appears to empiricists who rely on, or rather dream of, a future stage that will unify the different and make it compatible within a single framework, where Feyerabend criticizes this proposition, saying: "You can only be a good empiricist if you prepare yourself to deal with multiple theories instead of a single point of view. The multiplicity of theories should not be seen as a preliminary stage of knowledge, which

will eventually became a single correct theory. Rather, the multiplicity of theories is assumed to be a fundamental characteristic of all knowledge that claims to be objective."24

This commitment to chaos, which essentially signifies plurality and diversity, with the aim of liberating scientific and intellectual initiative in general, did not come out of nowhere for Feyerabend. Rather, he drew on history, which he found to be rich, fertile, and unimaginably diverse, a history full of He drew on it to make numerous and rich comparisons, extending from our modern and current times and going back to immerse us in its past stages and eras, reading in it an uncontrived and unaffected mixture of images of rationality and irrationality, which led him to come up with a firm conviction that is extremely bold and exciting, championing irrationality and non-methodology. Consequently, he acknowledges and praises pluralism methodologically and theoretically. It is a lesson of history, that is, the history of science itself, which rejects all forms of monism, whatever their names may be, whether in the name of methodology, theory, or otherwise. But what is the fate of science, the epitome of rationality, objectivity, logical rigor, precise reasoning, accurate judgments, ideal truth, masterful language, the tongue of the age, and so on and so forth? In the eyes of its supporters and followers among rationalists, and in general, among scientists, representatives and followers of logical positivism, Popperians, and others, I ask, what is its fate in the Feyerabandian approach? And what is its weight in relation to other forms of human activities?

2- Feyerabend's attack on science and defending other types of knowledge:

Balancing scientific knowledge with other forms of knowledge, Feyerabend does not miss an opportunity to criticize the former, even attacking it, pointing out its flaws, shortcomings, and even failures, sometimes comparing it to the latter, where he sees that, with regard to the worship of science, it is revered

by many, who are confident in the credibility of its methodology and its power and prestige in achieving proven and accurate results, on the one hand, and on the other hand, their belief in the existence of numerous indisputable effects that prove the excellence and overwhelming superiority of science. Feyerabend goes on to present the position of his opponents, who are enthusiastic advocates of science, stating that "some believe that science is superior for two reasons: first, it uses the correct methodology to arrive at results, and second, there are numerous results that prove its superiority."25

However, Feyerabend responds to these perceptions, considering them mere false claims that do not stand up to the power of the facts provided by the history of science and knowledge, challenging them with evidence drawn from methodology that clearly demonstrate the fallacy of the superiority of science and the fragility of such a proposition. In his response to the first reason, he downplays the importance of method, claiming that it has no effect: There is no scientific method, as there is no single procedure or set of rules that forms the basis of every research model and guarantees that it is scientific, and therefore that we can place our trust in it. Every project, every theory, and every procedure is judged on its own merits, using criteria that must be adapted to the processes it investigates. The idea of a fixed, comprehensive methodology, which is considered a fixed measure of fulfillment, and even the idea of fixed, comprehensive rationality, is unrealistic, just like the idea of a fixed measuring tool that can measure any mass without taking into account the surrounding conditions. Scientific researchers often modify their standards and procedures and their standards of rationality, because they move forward and enter new fields of research, and they modify, and perhaps even completely replace, their theories and research tools for the same reason, leading to the conclusion that: "Today, we are forced to practice science

without being able to rely on any specific, well-established 'scientific method'."26

As for his response to the second factor or reason, Feyerabend states bluntly that science cannot be preferred based on its results. If it is legitimate for science to have a special status thanks to its results, then this must be considered a strong argument, but only if it can demonstrate two things:27

(a) That no other vision -apart from science- has produced results comparable to its results.

(b) That the results of science stand on their own and owe nothing to any other non-scientific activities or actions.

In this regard, Feyerabend concludes that if we look closely, neither assumption can stand up to scrutiny and will collapse, and here are the explanations and evidences that prove the fallacy of this or that claim. In principle, Feyerabend does not deny that science has made remarkable contributions to our understanding of the universe, and that this understanding has led to more than remarkable achievements. It is also true that most of the activities that compete with science have now either disappeared and been completely suppressed or been forced to change their nature in order to be able to stand up to science and compete with it. However, this does not mean that the defeated competitors are incompetent and have ceased to contribute to our knowledge. It only means that they have temporarily exhausted their driving force, and may return once again to defeat those who caused their elimination and defeat.

'Feyerabend' gives a good example of this from atomic philosophy: in ancient times, the West adopted this philosophy in order to save large phenomena such as motion, but it was superseded by the more developed and dynamic Aristotelians. It then returned with the scientific revolution, was discarded with the development of the theory of communication, reappeared in the 19th century, and was again replaced by the theory of perfection, which it supported in the 20th century. Let us take another example, which he cites, namely that related to

the idea of the Earth's movement around the Sun: It first saw the light of day in ancient times, before receiving a severe blow and suffering a crushing defeat at the hands of the Aristotelians, with their irrefutable arguments, and Ptolemy considered it an “unbelievably funny” joke. Nevertheless, it was time for it to reappear on the scene in the 16th century -perhaps reminding us of Lakatos' reservations about decaying programs and his inability to provide us with clear and definitive criteria governing their demise at a specific time and without return, which impressed Feyerabend and led him to classify Lakatos as a chaotic thinker and consider him a partner in this chaos-. What applies to theories also applies to methods, as knowledge was based on contemplation and logic, then Aristotle introduced a more sophisticated experimental procedure, but Descartes and Galileo replaced it with more mathematical approaches, and then all of that melted into a somewhat extreme empiricism at the hands of the members of the Copenhagen School.

The lesson to be learned from these brief historical examples is that any circumstantial obstacle to an ideology (which is a set of theories unified in a methodology and more general philosophical vision) should not be taken as a reason to reject it. This is what happened after the scientific revolution, when older images of science and non-scientific visions were excluded and abandoned under flimsy and fragile justifications, on the pretext that the age of science had arrived and prevailed, and that the time of superstition and charlatanism was over and gone. This is an artificial supremacy that is not based on realism and objectivity, but rather a consecration of a vision Ideologically, science is granted complete dominance and a comprehensive monopoly over the field, not only thanks to its achievements and methods, which reveal its superficiality -and we will see more of this superficiality later- but also through constitutions, laws, various charters, and legislations enacted in favor of adopting and promoting science, all of which serve its

interests, suppressing all other competing activities, working tirelessly to defeat them and practicing a policy of closing doors in their faces. This means, once again, but not for the last time, that the alleged superiority of science is not the result of research or conclusive evidence; but rather the result of political, institutional, and even military pressures. There is no clearer evidence of this than the fact that the disappearance of this pressure or its use against science would lead to adverse results28. Here is one of the most prominent examples that Feyerabend uses to activate his vision and explain it more clearly and conclusively, always relying on history as his guide and main teacher: recent or distant and ancient.

A quick look at the history of traditional medicine in China is enough to understand what is meant. China was one of the few countries that escaped the dominance of Western cultural invasion at the end of the 19th century and the beginning of the 20th century. Young people were tired of outdated traditions and the restrictions that surrounded them, influenced by the dazzling material and cultural superiority of Western science. Science soon swept aside all traditional elements, from herbal medicine to acupuncture to the duality of yin-yang. As for the theory of qi, became a laughing stock, and these elements were removed from schools, universities, and hospitals curricula. Western medicine became the only reasonable approach, and this situation continued until 1954, when the ruling party realized the need for political oversight of scientists and ordered the return of traditional medicine to hospitals and universities. This restored the free competition between science and traditional medicine, and the results were astonishing and impressive. It was now discovered that traditional medicine had means of diagnosis and treatment that surpassed those of Western scientific medicine, and corresponding discoveries were made, even by those who had previously compared tribal medicine with scientific medicine.29

The meaningful lesson from all this is that it is very possible for ideologies that are supposedly unscientific to become formidable competitors and can reveal the major flaws and shortcomings of science, provided that there is a climate of equal opportunities and that they are given a fair chance to develop and prove their skills and abilities, which is the task of institutions in a free society. If we must continue, we can only add that the privilege of science, which is touted above what it deserves, does not stand up to the sober and fair history of science, to conclude that our “primitive” ancestors developed high-level astrology, medical theories, and biological research, which, for the most part, are more consistent and lead to better results than their Western counterparts, as well as describing phenomena that no ‘objective’ laboratory procedure can perform. If science is praised for its achievements, we must not forget that Stone Age humans worked to develop their perceptions, and when faced with extremely complex problems, they set out to solve them with remarkable ingenuity. Suffice it to say that the invention of fire, which is credited to the people of this era, was a legendary achievement, not to mention their domestication of animals and their discovery of new types of plants, working to preserve species to an extent that is comparable to what is possible in the field of modern scientific agriculture.30

As for assumption (b) [which states that the results of science are independent in themselves and are not due to any other non-scientific activities], the fact is that it was necessary for science to have results that counted in its favor and tipped the scales in its favor in an indisputable way, only if science alone had achieved these results without any external support or assistance. However, if we take a closer look at the stations of science that history has left us, moving from one to another, it becomes clear to us that it is extremely difficult for science to achieve these results in this way, which means that assumption (b) can also be refuted with a similar argument: There is not a

single idea that has not been borrowed from another place or source, and the Copernican revolution is one of the best examples that embodies this quotation. Where did Copernicus get his ideas? From ancient authors, as he himself states, but who were these people who played such an important role in shaping his ideas and adopting his modern astronomical view of the world? It did not occur to him to consult his scientific predecessors, but rather those who helped him develop his theory, such as the foolish and confused Pythagorean 'Philolaus'. How did Copernicus proceed when he sought to make Philolaus' ideas part of the astronomical system of his time? Feyerabend answers: When he violated and broke the established methodological rules of science, the mind with which Copernicus objected to the Aristotelian evidence defending the immobility of the Earth and arguing in its favor was the same mystical mind that Philolaus possessed, and it was also (the mind of the Hermetic magicians) united by a mystical belief in the essential nature of circular motion. Hence, modern astronomy and dynamics could not have advanced without resorting to and drawing on pre-flood ideas and concepts in a non-scientific manner.31

Similarly, modern medicine has benefited greatly from herbal remedies, physiognomy, metaphysics, and the physiology of fortune tellers, midwives, skilled men, and itinerant medicine and drug sellers. It is well known that the sixteenth and seventeenth centuries were the centuries of scientific medicine, yet theoretical inflation was stagnant and completely incapable of dealing with disease, and the situation remained unchanged until after the Copernican revolution, when innovators such as 'Paracelsus' returned to earlier ideas and improved medicine. Thus, -according to Feyerabend's reading- science is enriched everywhere by the use of unscientific methods and the attainment of unscientific results, while procedures that were mostly considered necessary parts of science have been It has

been postponed or completely surrounded32, or so Feyerabend believes.

We have seen in our own time how state intervention can contribute to the revival and resurgence of science. When the Chinese communists refused to bow to the threats of expert specialists and ordered a return to traditional medicine (such as acupuncture, moxibustion [or cautery therapy], and diagnosis by feeling the pulses At that time), a wave of discontent, outcry, and lamentation prevailed throughout the country that science in China was facing destruction. One of the most ardent Popperians proponents, such as “J.Eccles,” rose up in alarm, seized with terror, to predict the collapse of Chinese medicine. But what happened was quite the opposite, as Chinese science advanced and even benefited Western science. Wherever we turn, we find that the tremendous and great scientific steps forward are the result of external intervention and prevail in confronting the most basic and ‘rational’ methodological rules33. Feyerabend asserts that separating science from non-science is very arbitrary and, -in his view-, is not only an artificial separation but also fundamentally harmful to the advancement of knowledge. If we want to understand nature and comprehend what happens at its level, and if we want to control our environment and our physical surroundings, we must draw inspiration and benefit from all ideas and all approaches, not just select some of them.34

In Feyerabend's view, the lesson to be learned is very clear: there is no single argument that can be used to support the exceptional role that science plays in society today. Science is just one ideology among many others, and it has its place. The ideology of science is no more creative or consistent than other ideologies; it does not outweigh them, nor is it better or superior to them. "Science has accomplished many things, but so have other ideologies. Science is often presented as systematic, but other ideologies are also presented as systematic... Moreover, there are no rules... that can be

adhered to under any circumstances. There is no ‘scientific method’ that can be used to divert science from its inevitable end. Science is one of many ideologies that drive society forward, and it should be treated as such."35

While Feyerabend acknowledges the existence of what is called ‘science’ and its significant discoveries and achievements, he believes that the methods used in such achievements are diverse. Successful research, in his words, does not comply with general rules, which means that it is not possible to speak of a theory of science that would establish criteria for all aspects of scientific activity based on logical data. All that can be done is to try to enumerate approximate rules, provide historical examples, and present studies of individual cases that adopt various methods, and in all this, it is necessary to avoid logical constraints and rules36. He asserts that a simple look at periods of research, such as those related to quantum theory in its classical form or the developments that preceded the discovery of DNA, shows that the idea of a science based on strict logical proof or argument is nothing more than an illusion.37

Thus, "Feyerabend" concludes that science is merely one ideology among many, and should be completely separated from the state, just as religion is now considered separate from the state, a phrase often repeated by him and is repeated throughout his writings. Indeed, Feyerabend considers science to be akin to myth, very close to it, and there is no necessity, or rather, no strong and legitimate evidence to say or judge categorically that it is superior to it, so that no scientific philosophy is prepared to accept this. Moreover, Feyerabend lists its shortcomings, which are only apparent to those who are dazzled, enchanted, and captivated by it, preferring to side with its ideology and eager to defend and support it completely "Science is one of the many forms developed by humans, but it is not necessarily the best. It is loud, boisterous, and rude; it is not superior or superior except in the eyes of those who are captivated by a particular ideology, or who have accepted it

without ever studying its merits and limitations"38. He goes on to emphasize the right to accept or reject an ideology, without neglecting the need to complete the separation of the state from science, just as it divorced itself from theological authority "Just as every individual has the right to accept or reject ideologies, it follows that the separation of church and state must be followed by the completion of the separation of state and science: the most modern, the most aggressive, and the most dogmatic of religious institutions. Such a separation is undoubtedly our chance to achieve the humanity we deserve, but which we will never fully achieve."39

Perhaps another reason for our distaste and disgust with the notion of the superiority of modern science and the incomparable advancement of the present era over its predecessor is the psychological, physical, and overall health suffering of Feyerabend, who was wounded by bullets during World War II, as mentioned earlier. One of the bullets pierced his spine, leaving him permanently disabled and paralyzed from the waist down, forcing him to use crutches for the rest of his life (about 49 years!). This tragic incident in his life cast a shadow over his daily life. It was as if Feyerabend wanted to say: Where is this remarkable progress and the giant, pioneering steps taken by modern science and medicine, which have been powerless in the face of this disability for so long? How helpless they are in the face of various phenomena, diseases, and epidemics! Despite the so-called extraordinary progress that is promoted in a way that is sometimes nauseating and disgusting.

And here is the new coronavirus (COVID-19) epidemic, which the World Health Organization has classified as a pandemic, striking the inhabitants of the globe from one end to the other, without discrimination, in a terrifying precedent that has not occurred in a century, since the Spanish flu that killed nearly 100 million people. . In its early stages and in a short period of time, the pandemic has claimed hundreds of thousands of lives

and left many more infected, with fears of what is to come even greater, according to experts: doctors, scientists specializing in biology, virology, epidemiology, and infectious diseases, and even officials and leaders of countries, especially the so-called superpowers! A microscopic virus, extremely small, is doing all this, and we are talking only about its devastating effects on life and living beings, foremost among them humans, without mentioning its catastrophic repercussions on other aspects of life: financial, economic, commercial, social, psychological, and others, which are no longer a priority in the face of the rapid spread of the infectious virus and its terrifying advance, as everything has become insignificant in the face of saving human beings, so that life has become an absolute value, at least that is what appears to be the case.

So where is the medicine (drug)? Where is the vaccine? People are dropping like flies, and scientists and researchers are confused, floundering, and conflicting in their assessments and predictions, with some saying that a vaccine will be available soon, and others pessimistic, seeing no hope of obtaining a vaccine until at least a year from now, or, at the very least, taking into account the time needed to test it and conduct clinical trials on infected and infected people in stages, and those who fear that the virus may mutate, resulting in other more dangerous and vicious viruses! All this is happening as we approach the end of the second decade of the 21st century, a century in which humanity has achieved tremendous developments, even unprecedented revolutions: in science, technology, and other aspects of life served by these achievements, discoveries, and inventions flowing from all sides in an astonishing manner. What a strange and bizarre paradox, which indeed confirms the impotence of science and exposes the arrogance and conceit of its advocates and supporters, who cheer it on without reservation and without limits. Here, the Feyerabendist view is confirmed beyond doubt, as if it were born of the hour, nay, of the moment.

What is worse is that since the emergence of this epidemic in late 1919 in the Chinese city of Yuhan, which was declared a global pandemic by the World Health Organization in 1920, various strains have been identified: Alpha, Beta, Delta, Omicron... etc., varying in severity and spread, and in the severity of their impact on those infected and their victims. After the hype and commotion surrounding the various types and variants of coronavirus subsided, which had taken a toll on people's mental and physical health, primarily due to media exaggeration, which increased people's fear and intimidation for more than three years, Now, talk of the coronavirus pandemic has returned in December 2023 and at the beginning of the new calendar year, under another name, JN1, and with it has returned fear, or rather intimidation, in a nightmarish scenario that seems to have no end in sight! Let us remember, once again, that all this is happening in the midst of explosive scientific discoveries and technical and technological inventions flowing from all directions, and that “artificial intelligence” is not far from us, which, according to its experts and those who follow its developments, represents perhaps the greatest and most dangerous revolution known to mankind.

With all that we have mentioned and referred to -which is very little- and much more that we have not mentioned or referred to -which is a lot a lot...- human beings, and especially experts, remain powerless in the face of a very small and harmless virus, just as they were powerless and failed before it (i.e., before coronavirus) in the face of viruses that were similar in their insignificance and small size, some of which continue to challenge humanity (AIDS and Ebola, for example), Others continue to appear from time to time, despite their primitiveness, threatening the lives of living creatures, including humans, such as malaria, typhoid fever, and typhus, to name but a few. To repeat, What a terrible paradox it is that in this age of tremendous scientific and technological progress, humans, and experts in particular, still have no remedy or

solution for viruses that cannot be seen with the naked eye and can only be detected and identified by magnifying them thousands or even millions of times using devices and sophisticated microscopes! You are right... absolutely right, Feyerabend! Let humility be the motto and creed of humanity, and of scientists in particular, because the extent of our ignorance is perhaps incomparable to the limited knowledge we have attained, which we constantly boast about and brag about our achievements! Joyful and proud, even arrogant, we are overcome with pride, arrogance, and extreme haughtiness, forgetting, or rather, We forget the painful blows we keep getting every now and then, with all the huge failures and devastating disappointments they cause us, waking us up from our drunken stupor and reminding us that our so-called scientific and technical successes and victories, important as they are, remain relative and very limited! This is the obvious reality, which cannot be denied, concealed, ignored, or overlooked. A valid question arises: How can an ordinary person with no scientific training or specialized knowledge succeed in treating certain diseases that specialist experts with incomparable knowledge and experience fail to treat? (For example: the treatment of jaundice or the solution that affects young children). Where is the rationality and logic that are the cornerstones of the spirit of science?

3- The history of science and the collapse of rationality:

In answer to the above question, it is perhaps, or rather almost certainly, the case that Feyerabend is right in his criticism of strict rationality and its associated temptations and delusions of a single methodology, a single theory, and even a single culture. Thus, he did not waver or falter in his criticism of rationalism, for he is the enemy of uniformity and regularity, and the friend of abundance and pluralism, which are always productive and enriching. If his book (Against Method) forms the basic background for most of his other works, which are an

extension of it: analysis, explanation, and clarification, his central thesis, as is evident from its title and as revealed by its content, is the affirmation of the importance of pluralism: methodologically and theoretically. On this basis, it suffices to consider his other book (Farewell to Reason) to see in its title a desire, or rather a determination, to assassinate reason, or rather, an attempt to abort the rationality so often extolled by positivist logicians and those who revolve in their orbit, such as Popper -whom Feyerabend considers to be one of them, no matter how much he claims to disassociate himself from them and be independent of them- to drown in their cries and lamentations over the assassination of rationality, which sets fixed, solid, and deeply rooted standards and rules, which nature has not bestowed upon them, a dry and barren rationality that is incompatible with the history of science and does not keep pace with the reality of knowledge, which reveal rich and fertile events at their stations. It is impossible for the rationality of loftiness, ideals, and the distorted images of history, which turn their backs on its vibrant and flowing events, to touch or be guided by them. History is richer than what traditional adepts and advocates of reason claim.

By clinging to false and abstract rationality, they have failed to grasp the flow of knowledge and how it progresses, which reveals that rationality comes in many forms that cannot be confined to science alone, making it the highest and best form of knowledge, but rather coexists and complements dualities: rationality/irrationality, science/religion, science/myth,… etc. It has often been a factor in strengthening and promoting progress, never not the opposite "No idea, however old or unreasonable, is incapable of advancing our knowledge. The entire history of thought is integrated into science and works to improve every particular theory. Political interventions cannot be ruled out either. We may need them to defeat the chauvinism of science that resists any change to the status quo [as we mentioned in relation to the ‘revival of traditional

medicine’ through traditional therapy in China by political decision]."40 .

Therefore, relying on the present times and linking modern science to them, because they alone are considered rational, and everything else is considered irrational, illogical, and outside the sound frameworks of thinking, is merely a Western self-centrism, not without a touch of megalomania and a feeling of superiority, which is likely what prompted Feyerabend to write his book entitled (Killing Time), which is a presentation of his autobiography, as if he wanted with it -and this is merely a speculative reading on our part, which is, of course, inseparable from the broad outlines of his philosophy- to end time, to end the distinction between the reasonable and the unreasonable, and to divide units of time on the basis that the modern is better than the ancient, because the former is the origin of modern science and the dawn of rationality in its shining and luminous forms, while the latter is a symbol of backwardness, obscurantism, and irrationality, making it, in their view, an image of irrationality that has hindered progress and stood as a stumbling block to its achievement, which is repugnant and oppressive for Feyerabend, there is a lot of abuse in it towards past times and their people, and therefore lacks even the slightest semblance of legitimacy, turning what is reasonable into the unreasonable. From Feyrabend's perspective, progress has always been (the construction of the pyramids, Polynesian travels, the domestication of animals, the selection of plants while avoiding crossbreeding, agricultural cycles, the practices of Stone Age man and his remarkable innovations41 etc…), and that those ancient times, described by many as irrational, often offered better than what the present times offer: times of so-called scientific progress and advanced technology, with their atomic, thermonuclear, and smart bombs, their spaceships, infrared and ultraviolet rays, and so on... In fact, modern science only came about with the help of ancient science and by following its guidance and footsteps. Many practices have been

revived (herbal medicine and cautery, treatment by acupuncture or acupressure, and various traditional treatments used today by the pharmaceutical industry, some forms of embalming, etc...).

For all these reasons and others, Feyerabend concludes that the distinction is artificial and meaningless, leading him to rule and demand the elimination and killing of time, because of this unfair distinction, which was a cause of great discontent and complaint on Feyerabend's part. It was the subject of his sarcasm and mockery, which did not come out of nowhere, but crystallized from an extensive, in-depth, and proven study in its different aspects, which reveals the falsity of rationality in the image claimed by its traditional guardians and advocates, and that he challenges the existence of a dividing line between the reasonable and the unreasonable, and that knowledge, throughout its long and complex history, is intertwined in a way that cannot be untangled, without which development would not have been possible, and human (humanity) would not have been able to take even a single step in this direction. Feyerabend does not hesitate for a moment to continue his critical line of reason and its authority, and thus to argue that rationality is empty, that it is nothing more than a shiny slogan and a resonant and deceptive ideological framework that leads to monotony, rigidity, and stagnation. He asserts that the authority of reason is misleading, since rationality today has no recognizable content outside of partisan principles that are labeled as rational. For this reason, he calls for liberation from its constraints and shackles.42

From this, Feyerabend ends up exposing the myth of rationality and the associated fallacies and nonsense of the one and only method, and undermining, the idea of science as the highest form of knowledge, as the wisest model that reflects and embodies rationality, considering such a proposition to be mere ideology, which does not outweigh other necessary ideologies, which must remain side by side in determining our

choices, which should not be forced upon us. Rather, we must be given the full choice to vote for the ideology that suits us, to adopt it and defend it without oppression, coercion, or compulsion, out of respect for our humanity and our resulting right to choose freely. Humanity, which he defend and is motivated by, science and its authoritarian and totalitarian tendencies, which continue to expand, devouring and swallowing up other activities and types of knowledge.

The right to choose led Feyerabend to challenge strict rationalism and argue in favor of adopting a special innovative doctrine in the field of educational curricula. Alongside evolutionary biology, quantum physics, and relativity, there should be room for sorcery, astrology, and acupuncture. There must also be complete freedom in choosing the 'system of knowledge' that one judges to be valid and correct. To claim the superiority of science and praise it on the basis of its triumphant achievements is mere propaganda, even a blatant lie, revealing a bias that smacks of ideological prejudice. It is not consistent with the logic of sound, more cautious and deeper consideration, which may reveal what contradicts this obvious self-serving bias, showing, for example, that myth is better than science and clearly superior to it. This is what we gather from his statement: "If science were praised for its achievements, then it would be myth should be praised a hundred times more entthusiastically, because its achivements were immeasurably greater, since the creators of myth established a culture while the rationalits completly changed it, and in most cases they will not do any better"43.

This is why Feyerabend rejects the institutionalisation of science, because such an action clashes with humanism. Science is taught in institutions, as a very important subject, and is therefore compulsory and obligatory, and other activities are not allowed to run parallel to it or compete with it, let alone choose to practice it instead "if an american can choose the religion he wants, he is not allowed until further notice to

demand that his children learn magic instead of science in school. There is a separation of church and state, but there is no separation of state and science"44. To remedy this situation, which gives science incomparable prestige and privilege, is to free society from the stifling power of an ideologically fossilized science, just as our forefathers freed us from the stifling power of the one true religion45. In the free society that Feyerabend wants, or rather, aspires and dreams of, science, with its people, will not be superior to other types of knowledge and traditions. A responsible citizen in such society is "not someone who has been educated in a particular ideology, such as puritanism or critical rationalism, and now carries his ideology within him like a malignant mental tumor; an adult citizen is one who has learned to make his own decisions and to decide in accordance with what he thinks best suits him. It is the one who has a certain mental toughness…; he is the one who is able to consciously choose the craft that appears most attractive to him instead of letting himself be devoured".46

In order to make this choice, he will "study the main ideologies as he studies historical phenomena; he will study science as a historical phenomenon, not as the one and only intellectual possibility. He will study it at the same time as he studies other tales or myths about genies, such as the legends of ‘primitive’ societies, in order to acquire the necessary informations to make a free decision."47. The state is left with only a neutral role, which is to coordinate between ideologies, in order to guarantee and ensure freedom of choice for citizens. It does not have a particular ideology that it imposes on individuals against their will. Feyerabend insists, as usual, on the need for science and schools to be carefully separated, just as religion and schools are today, and that fundamental choices, such as the curricula used or the establishment of basic beliefs, like the teaching of the evolution theory or the theory of quantum, should not be in the hands of scientists, nor should they be monopolized or restricted to them alone. Rather, they

should be subject to the principle of voting, and not to the authority of important figures who hide behind a methodology that has no existence or impact. Feyerabend reassures us that there is no need to fear or be apprehensive about such a reorganization of society, as science will become self-sufficient, benefiting from the democratic choice based on the method of balloting-debate-voting, which undoubtedly contributes to the rise and escalation of our rationality.48

Last but not least, Feyerabend is surprised and astonished by the statement signed by 186 researchers, including astronomers, physicists, mathematicians, and philosophers, due to the spread and popularity of astrology, and nearly 19 of them, Nobel Prize winners, warned in their 1975 statement of the dangers of such a spread and its threat to sound reasoning and thought, and through them, to the individual, society, and institutions as a whole! What is truly surprising, from Feyerabend's perspective, is how science, which is based on praise for its rationality, objectivity, positivity, integrity, and other impressive characteristics, leads its practitioners and advocates to adopt the tone and style of a religious statement, in addition to the fascist manner in which the statement was presented49. If these signatories have such strong conviction in science, why are they so terrified, rushing to collect as many signatures as possible, as if they were in An election campaign to convince their constituents to pay their dues. Feyerabend asks: Why 186 signatures, if one person's argument is enough? He answers, "They know a few phrases that sound like arguments, but they certainly don't know what they're talking about."50

To illustrate his point, he cites the first statement in the manifesto, which says that scientists in various fields are becoming increasingly concerned and anxious about the growing acceptance and popularity of astrology around the world. Feyerabend believes that contemporary scientists, and specifically those who signed the statement, are not familiar

with what they are attacking (astrology) and that their meager knowledge of the subject is not enough to undermine their prejudice51. These scientists, or rather pseudo-scientists, who lack knowledge of anthropology and archaeology, fail to realize that if they were to study the latter and learn about its discoveries, they would be amazed by the astonishing knowledge of ancient humans, not to mention that they would also come to realize that it does not differ much from the knowledge of "modern primitives." This allows us to say that the judgment of the 186 first-class scientific researchers is based on pre-flood anthropology, ignorance of the latest findings in their fields of specialization (astronomy, biology, and the connection between them), as well as their failure to grasp the implications of the findings they are familiar with. It illustrates the extent to which scientists are prepared to impose their authority, or rather their tyranny, on fields in which they have no knowledge whatsoever. While acknowledging the magical origins of astrology, from which science was not immune but was often closely associated, as some scientists admit (for example, the emergence of astronomy from astrology and its birth from its womb), if it were necessary to challenge astrology and reject it, on the grounds that it is mixed with magic and is a form of it, then science would also have to be rejected and challenged on the same basis.52

4- The limits and prospects of the Feyerabend's approach:

In general, as with any philosophical endeavor, the Feyerabend approach has been widely welcomed and accepted by some, On the other hand, it has been met with reservations and even hostility by others, who consider that the anarchism it advocates would open the door to major abuses and deviations, especially since it is susceptible to political exploitation and manipulation, in addition to criticism of its aspects that discourage science and promote unscientific knowledge and

practices. Since this paper is merely a brief contribution that outlines, or rather, some of the basic ideas underlying Feyerabend's thesis, we are unable, at this stage, enter into the details of responding to Feyerabend with discussion and criticism, because we have only presented fragments and general outlines of his epistemological approach. However, this does not prevent us from agreeing with some of the responses that have interacted with his approach and criticized it in certain aspects. The French researcher 'Alain Chalmers' believes that Feyerabend's analysis is extremely provocative and controversial, considering it unique, such that anyone interested in epistemological issues and problems of the philosophy of science -and, we would add, concerns of culture in general- cannot dispense with Feyerabend's point of view or neglect it and relegate it to the margins53. chalmers himself, at the end of his presentation on Feyerabend, returns to criticize him, saying that if we follow him and adopt his principle that "everything is good," this means that everyone should follow their personal inclinations and do whatever they want and whatever they feel like doing. If we adopt and endorse this point of view, it is very likely to lead to a situation in which those who already have power will retain and cling to it -which means that Feyerabend's statement could be exploited and used for political purposes, as we mentioned earlier-, citing one of John Craig's statements, which essentially means that raising and defending the slogan "everything is fine" practically means maintaining the status quo.54

It is, and despite the validity of some of the ideas and opinions that Feyerabend expresses and advocates (such as incommensurability, the overlap between the scientific and the non-scientific, sometimes the intertwining of the rational and the irrational, the relativity of scientific truth, and freedom for the sake of creativity...), it is difficult to accept some of his other ideas and opinions, such as his assertion of the equivalence and equality of science and non-science, and even the superiority of

the latter, and his claim that truth is the product of all the opinions put forward by all parties. Consider, for example, his statement: "Experts and profanes, professionals and amateurs, truth fanatics and liars, all are invited to participate in the discussion and contribute to the enrichment of our knowledge, [and in general] our culture. Whereas the task of the scientific researcher is not to 'search for the truth'... or in 'coordinating observations' or 'improving predictions'. These are only secondary effects of an activity whose attention is now mainly focused on making the weakest stronger, as the Sophists said, and in this way, supporting everyone."55 A reference to the Greek Sophists, whom Feyerabend did not hide his admiration for, with their propositions emphasizing relativism and its projection or generalization at all levels. This led him to embrace and exploit them, taking them to the furthest limits, the limits of science itself, looking at its methodology and methodological rules, and even its theories, with a relativistic view and treating them accordingly. This provoked a resentful reaction, rejecting and condemning what Feyerabend had said, especially from philosophers and scientists, who were shocked by what he said about science and its method, because they had always been tolerant of relativistic tendencies and orientations -and often went along with them- when it came to the world of metaphysics, and even ethics and religion, but it was difficult for them to digest and accept this in the field of science56, or as stated in the introduction to the translation of his book (Three Dialogues on knowledge).

As for the Egyptian researcher 'Muhammad Ahmad al-Essayyid'-translator of the aforementioned book-, he warns us that a hasty reading may lead us to classify Feyerabend as a charlatan, reactionary, and irrational, However, a careful and insightful reading of his works and writings will show us that, apart from a limited number of his statements and sayings, which are dominated by rhetoric and the use of resounding slogans, a considerable portion of them are, arguments, proofs,

and explanations that are indispensable for students of science, its history, and its philosophy to be familiar with and learn about, given their great importance and value. In his words, what justifies our acceptance of Feyrabend's attack on science and scientists is that it falls under the category of 'treatment' for the ills of the philosophy of science and remedies for its flaws57. The best way to conclude our assessment of his approach is to say that Feyerabend has divided opinion into two camps: some consider him a brilliant and ingenious debater. while, he is dangerous, misleading, and deceitful in the eyes of others. Regardless of this conflicting and highly reductive assessment, it is certain that Feyerabend has stirred everyone up and left no one indifferent in the world of science and epistemology58.

CONCLUSION:

Based on the above, we conclude that "Feyerabend" emphasized chaos (anarchism), i.e., pluralism, both at the methodological and theoretical levels, recognizing that this pluralism or abundance does not hinder science and knowledge in general, nor is it harmful to them, but rather is a useful factor that aids progress and creates a strong dynamic at their core. Thus, Feyerabend emerges as a rejecter of rigidity and strictness and, in contrast, an advocate of flexibility and tolerance, or rather, intellectual coexistence, which translates into his defense of mythology, astrology, and the practice of voodoo•... and other forms and activities that are described by supporters and fanatics of science as forms of ignorance (non-science), and therefore, irrationality and illogicality, which must be fought and eliminated, as they are incompatible and contrary to scientific practice, as a symbol of rationality and an image of objectivity, and the only expression of rationality in its purity and consistency. This is a position that Feyerabend rejects and does not agree with at all, considering that it is nothing more than an expression of the chauvinism of science and the narcissism of its representatives and proponents, assessing that

such a proposition is merely an ideology, with its unjustified intolerance, because a careful, calm, and deep examination of the history of science reveals to us that scientific knowledge is only one type within a broader genus that includes and encompasses other types of knowledge, which has never been inferior or less important than scientific knowledge. In fact, this so-called non-scientific knowledge -a term used to express contempt and belittle its value- has often been more successful than science, finding explanations and solutions to problems that science has been unable to address or resolve.

The Feyerabend's approach had a wide resonance and caused a great stir, as its proponent turned the world upside down, since the ideas and concepts contained in his point of view have caused much ink to flow, and continue to do so, causing an earthquake whose tremors continue to this day. It has divided philosophical, scientific, and cultural circles between those who support and approve of much of what it contains, appreciating that it opens up broad horizons for further exploration and excavation of history, and to review a significant number of our assumptions and convictions built on certainties and absolutes, some of which may be subject to collapse and downfall, as was achieved by Feyerabend, and remain verifiable by others who benefit from his approach and work to exploit and invest in it. On the other hand, others may reject Feyerabend's approach, considering it an overt call for reactionism, backwardness, and chaos in the literal sense, which makes them despise it and be prejudiced against its proponent, who spared no effort in openly undermining and demolishing established scientific traditions that had become a prominent feature of scientific thought and practice, which continued to succeed and progress by relying on them and building on them, given their pivotal position and central frameworks, which could not be bypassed or dispensed with. This prompted his opponents to oppose his approach, denounce it, and expose its intentions.

In short, such rejection, with all its reservations and even criticisms, does not negate the value of the Feyerabendian approach or diminish its importance in any way. Its architect deserves credit for sparking intense activity and stimulating vigorous debate and discussion, which has injected tremendous vitality into the intellectual environment, across its various wings. It is very natural that his approach should be subject to debate and criticism, as is the case with any philosophical endeavor, whatever its field (science, religion, art, politics, or... etc.), because philosophy has been, is, and will remain, in essence, controversial, regardless of the problem we are investigating and addressing or the subject we are philosophizing about or debating.

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[40]- Ibid., p.48.
[41]- Ibid., pp.346,347.
[42]- Paul Feyerabend, Farewell to Reason, op.cit., p.20.
[43]- Paul Feyerabend, Science in a Free Society, op.cit., p.119.
[44]- Paul Feyerabend, Against Method, op.cit., p.337.
[45]- Ibid., p.348.
[46]- Paul Feyerabend, Against Method, op.cit., p.349.
[47]- Loc.Cit.
[48]- Ibid., pp.349,350.
[49]- Paul Feyerabend, Science in a Free Society, op.cit., p.106.
[50]- Loc.Cit.
[51]- Ibid., pp.106,107.
[52]- Ibid., pp.109,110.

[53]- Alan Chalmers, 1991, Theories of Science, translated by Al-Hussein Sahban and Fouad Al-Safa, Dar Toubkal Publishing, 1st edition, Casablanca, p.134.

[54]- Ibid., p.145.

[55]- Paul Feyerabend, Against Method, op.cit., p.28.
[56]- Paul Feyerabend, Three Dialogues on Knowledge, op.cit., p.1.
[57]- Ibid., pp.1,2.
[58]- Jacques Lecomte, Paul Feyerabend: an anarchic theory of science, op.cit., p.220.

• Voodoo: a spiritual (animistic) and magical cult, whose roots go back to the "Benin" and which is mainly established in "Haiti". It is only called "Voodoo" by those who are unfamiliar with it. It is a religion attributed to Africa by its faithful followers, practiced mainly in Haiti and the Antilles, and also strongly present in Congo, Nigeria, and Benin. This cult is based on a mixture of certain elements of Catholic faith and rituals related to practices borrowed and inherited from animism: talking and communicating with the spirits of ancestors, belief in zombies, magic, goat sacrifices, collective possessions and convulsions, etc. See: Hélène Plaziat & Brigitte Marton, (under the direction of), 1996, the great enceyclopedic dictionary of french language, Knowledge Editions, France, p.1145.

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