

Analysis as a Philosophical Method (An Epistemological Approach)

التحليل بوصفه منهجا فلسفيا (مقاربة إبستمولوجية)

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Abstract:

The modern era witnessed the rise of science due to the scientific method established by thinkers such as Francis Bacon, John Stuart Mill, and others. This method had enabled scientists to achieve what philosophers had failed to accomplish. It is systematically unified and decisive, with no doubt or uncertainty. This situation compelled philosophers to reflect on what could lift philosophy out of its obscurity and sterile dialectics; thereby, the analytic method was formulated by Anglo-Saxon philosophers. This research seeks to clarify the analytic method and its capacity to shift the course of philosophical thought from the mere use of language in philosophy to making language its central subject. The study aims to provide a precise definition of its concept, history, tools, and sources. However, this method, despite representing a turning point in philosophical methodologies, is marked by epistemological limitations that have subjected it to numerous and severe criticisms.

Keywords: Philosophy, Logic, Language, Mathematics, Propositions, Logical Analysis, Metaphysics, Method, Analytic Philosophy.

ملخص:

شهد العصر الحديث تألق العلم بفضل المنهج العلمي الذي أسسه كل من بيكون وجون ستورات ميل وغيرهما، وهو ما مكن العلماء من تحقيق ما عجز عنه الفلاسفة، فالمنهج العلمي واحد وحاسم في مقارباته النسقية ولا مجال فيه للشك والارتياب المعرفي، وقد كلف هذا الوضع تفكير الفلاسفة في منهج يخرج الفلسفة من ضبابيتها وجدليتها العقيمة أين تمت صياغة المنهج التحليلي على يد الفلاسفة الأنجلوسكسونيين. إن بيان المنهج التحليلي وقدرته على تحويل مسار الفكر الفلسفي من مجرد استخدام اللغة في الفلسفة إلى جعلها الموضوع الرئيس للفلسفة هو ما يطمح إليه هذا البحث في تحديدا دقيق لمفهومه وتاريخه وأدواته ومصادره، ولكن النتيجة الحاسمة التي تلخص مكانة هذا المنهج هي أنه منهج على الرغم من أنه يمثل منعطفًا في المناهج الفلسفية إلا أنه يتضمن محدودية إبستمولوجية جعلته عرضة لانتقادات عديدة وشديدة.

كلمات مفتاحية: الفلسفة، المنطق، اللغة، الرياضيات، القضايا، التحليل المنطقي، الميتافيزيقا، المنهج، الفلسفة التحليلية.

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1. Introduction

The modern era in the history of philosophy marks the advancement of philosophical epistemology and the decline of the question of existence and metaphysics. The dominance of religious thought and the failure of Aristotelian philosophy were among the reasons for

this. The intellectual darkness that overshadowed Europe during the Middle Ages (ten centuries) is attributed, in part, to the lack of a true epistemological method that could address various human problems and find practical solutions. The traditional Organon formulated by Aristotle failed in this regard due to its formalization and cognitive barrenness. For this reason, many thinkers attempted to overcome this obstacle by considering an alternative method, hoping it would be a new tool to succeed where the Aristotelian method failed. Ultimately, the English School achieved a unique success by establishing the empirical method by Bacon and John Stuart Mill. This method is credited with what is now called the birth of "modern science."

The establishment of the empirical method and the successive successes it achieved in the sciences had philosophical implications and influences that philosophy still suffers from. That is, since the modern era, this problem in philosophy has become the primary concern of philosophers. For philosophy to achieve objective results and propose practical solutions, it has become contingent on formulating an appropriate epistemological method. It is precisely here that philosophers historically worked to establish numerous methods that might be able to accomplish that task and gradually succeed in approaching the rigorous results of science. The most prominent method is the analytic method as conceived by analytic philosophers. It attempted to combine the spirit of philosophy with the data of contemporary science in its mathematical and logical form. Hence, it will form the core of this article within a problematic that seeks to inquire about its true concept and essence, then its reference or epistemological background, and finally, how this method was conceived by one of the important philosophers of the 20th century, Bertrand Russell.

2. On the Concept of the Philosophical Analytic Method:

Analysis is a word used in a philosophical context, and in language, it means to loosen or open. One says (حلّ، حَلَّ) "he loosened, he analysed" the knot, meaning he opened it (so it became loose). This means to decompose anything complex or whole into its parts or constituent elements. Its opposite is synthesis, which means building from parts, i.e., connecting and assembling the separated or small elements of the whole into a comprehensive unit. (Azmi, p. 59)

In *Lisan al-Arab* under the root "حلّ" and in *Mukhtar al-Sihah* under the chapter "رد," it means to resolve something or to break down a compound into its constituent elements. Thus, to analyze means to "undo" in order to gain a better understanding of what is being analysed. A chemist is interested in analyzing complex natural elements into their constituent parts, and a psychologist analyzes human consciousness. A philosopher, on the other hand, should be interested in analyzing linguistic units or concepts (Atiya, 2019, pp. 21-22). Similarly, in various philosophical dictionaries that have dealt with analysis, we find the term as it appears in different languages: *Analyse* in French, *Analysis* in English, *Analytice* in Latin, and *Analusis* in Greek. It is analysis as opposed to synthesis, meaning the reduction of the whole to its parts. If the analysed object is real, the analysis is called real or natural; if it is mental, the analysis is called imaginary. (Atiya, 2019, p. 24)

From a terminological perspective, analysis carries many meanings. If it is intellectual, its subject is an idea or a proposition; if it is material, its subject is an element or an object. Analysis is ultimately defined by its subject. (Madin, 2019, p. 21)

Analysis means reducing a complex subject or a whole to its simple elements, i.e., to its parts (Lalande, 2001, p. 64), regardless of whether the subject is a logical proposition, an abstract idea, or a scientific theory. Among the common and direct meanings of the word analysis are division and decomposition. However, this meaning varies depending on the subject being analysed or decomposed. It can be material-sensory, as in chemistry and the world of liquids, or intellectual-conceptual, as in mathematical analysis, which involves inferring one proposition from another. (Saliba, 1982, pp. 254-256)

The word analysis (Analyse) generally means breaking down anything complex into its parts, and its opposite is synthesis, which means building from all parts, i.e., connecting and assembling the separate elements of the "whole" into a single, comprehensive unit. From a philosophical perspective, it means breaking down or reducing the subject we are researching to its sources or primary elements, whether that subject is an idea in the mind, a proposition, a linguistic phrase, or a life event, whatever the purpose a person seeks from this analysis. (Azmi, 1980, p. 225)

In this context, it must be clarified that analysis in its philosophical sense differs from and corresponds to two other things. First, even if analysis is a type of decomposition, it does not reflect the concept of division, because it leads to the discovery of elements or origins, and thus through it we reach the cause. As for division, the parts in it are an amount of composition equal to the amount of the original analysed part; division explains nothing (Atiya, 2019, p. 22). Here, analysis goes beyond to another matter, which is clarification in contemporary philosophy, which has become more and more closely related to clarification because it does not add new knowledge as much as it justifies and clarifies what we vaguely know. Rather, clarification comes by highlighting some—or all—of the elements of the subject we are analyzing. (Azmi, 1980, p. 233)

Despite this conceptual definition of analysis by some adjacent terms, we point out, as some scholars have presented it, that even if analysis is an operation intended to discover the elements of a particular subject for a specific purpose, the word "analysis," even if it has missed this precision in defining the meaning, is not devoid of any definition in terms of its applicability to several meanings. Even if they differ from each other, they are similar enough to justify gathering them under this name. The different uses of this word and the different meanings that contemporary philosophers take it to have are similar and all point in one direction, forming individuals of a family that we call "philosophical analysis". (Azmi, p. 61)

Philosophical analysis is a general term describing a technique used by philosophers in the analytic approach that involves "breaking down" (like analysis) philosophical problems. It can be argued that the most important technique is conceptual analysis, which aims at clarification by highlighting the simple elements implicit in the subject that are obscure due to their composition. (Atiya, 2019, pp. 21-22)

From this, it becomes clear to us that analysis is linked to synthesis in a single dialectical process. They are two philosophical terms that denote the division of the whole practically or mentally. Philosophy is not alone in employing analysis and synthesis; science also uses them, such as chemistry, physics, and engineering. Analysis is a necessary method

and a stage in the process of moving towards knowing the whole. Analysis and synthesis are complementary operations on the ladder of knowledge. (Atiya, 2019, p. 22)

Analysis, as a mental or procedural operation, is not limited to the world of philosophy alone but extends to other realms, indeed, we find it in more than one intellectual field. There is mathematical analysis, which involves analyzing it into the simplest statements, i.e., propositions and then proving them from before, or those statements that are assumed to be self-evident. There is analysis in the field of education, which deals with the subjects that students study relative to their ages. In addition, there is psychoanalysis, which deals with psychological phenomena and aspects of behaviour by analyzing them to understand the primary elements that lead to them. (Azmi, p. 60)

If analysis in philosophy is the reduction of a subject or proposition to its simple elements, then philosophers' understanding and application of it vary through the results they achieve. These results are the primary units or elements that constitute the subject of analysis. For Hume and Locke, for example, these are a set of sensory impressions. For Descartes, they are simple natures. For Leibniz, they are spiritual atoms or monads. For modern analytic philosophers, they are primary or atomic propositions. (Azmi, p. 61)

The truth is that the analytic method in philosophy has departed from its general meaning and, in the contemporary period, has become associated with linguistic matters, now being referred to as the linguistic analysis of propositions or logical analysis, as is the case with Cambridge philosophers like Moore, Wittgenstein, and Bertrand Russell, and the Vienna Circle.

This analysis fundamentally differs from other types of philosophical analysis, such as the analysis of human knowledge and its reduction to a set of simples or primary elements, as well as the analysis of existence, as seen in Descartes, Locke, Hume, and Leibniz, or the analysis of a concept or idea through its partial applications to understand the underlying principle, as is evident in Socrates' dialectical method, in Plato's dialogues, and in Aristotle's ethics.

The contemporary philosophical analytic method is based on the analysis of language due to the linguistic turn that philosophy witnessed starting from the twentieth century. This, at one point, represented a philosophical movement that had a significant impact on contemporary philosophy as a whole, described by David Pears as a revolution. For this reason, Moritz Schlick described the twentieth century as the age of analysis. This movement is what came to be known as analytic philosophy or the contemporary analytic movement, which adopts the linguistic philosophical analytic method as its own. Contemporary analytic philosophers argue that the subject of philosophy cannot be reality because that is the subject of empirical science. Instead, the preferred subject of philosophy is the discourse of scientists and what people say in their daily lives. We observe that these analytic philosophers move philosophy away from its traditional function, as known by speculative philosophers like Plato, Aristotle, and others, transforming it from abstract thinking to language analysis for the purpose of clarification. (Hammoud, 2014, p. 236)

The contemporary analytic method has become an original method whose epistemic or philosophical-epistemological value does not lie in presenting new theories or analyzing and synthesizing philosophical systems of a certain type. Rather, the analytic method has placed

philosophy, and all of philosophy, under epistemic scrutiny. In other words, it has put the subject of philosophy to the test of philosophical inquiry and reformulated the main subject of philosophy. Traditional subjects like knowledge, existence, values, and so on are no longer what philosophers are concerned with; instead, the language that analyzes these subjects has become the subject of philosophy itself. This means that philosophy no longer views language merely as a means to an end, but as an end in itself. Hence, analytic philosophers consider language analysis as the fundamental work of philosophy and the investigation of words and phrases. This approach, followed by Moore, Russell, and Wittgenstein, the founders of the method, or the revelation of a way of philosophical thinking, viewed philosophical thinking as meaningless for the following reasons:

1. Dominance of metaphysics.
2. Accumulation of numerous philosophical problems that, in their words, require solutions.
3. Inability of philosophy to discover new things concerning nature.
4. Philosophers moving away from the idea of analysis and immersing themselves in multiple concepts of existence, whether with Hegel or his Hegelian followers.

Thus, if traditional philosophy as a whole was contemplation, contemporary philosophy as a whole is analysis, whereby the function of philosophy has changed from building speculative metaphysical systems to an analytic activity. From this, the contemporary analytic movement emerged, whose proponents called themselves "analytic philosophers."

Thus, the task of philosophy has become to practice thinking about language, meaning that language thinks about language or language analyzes language. Philosophical analysis, in its essence as seen by contemporary analytic philosophy, is based on understanding the consequences of an idea when it is analysed. Philosophers of this analysis link an idea with its meaning, so that an idea has meaning when it has a consequence, and they link the idea to the action that results from it. They also advocate for reducing technical terms because these terms often break down into long phrases of other words common in daily life. (Atiya, 2019, p. 22)

The analysis of language is the fundamental work of philosophy, not in terms of merely what it refers to in terms of ideas and knowledge, especially those related to the sciences in particular, without interfering with the function of scientists. Rather, it merely analyzes their propositions and language propositions in general with the aim of clarifying their ambiguity without delving into the obscurities of the unseen. From this, contemporary philosophical analysis has become linguistic analysis and clarification of the language we speak, which later revealed that many of the problems that philosophy in general and metaphysics in particular talk about are due to the misuse of certain phrases or words, or to a misunderstanding of the logic of language, in Wittgenstein's words. (Mahmoud, 1980, p. 110)

3. The Analytic Method: Its Emergence and Characteristics:

The philosophical analytic method, or linguistic analysis in philosophy, is a philosophical trend that emerged in the twentieth century concerned with analyzing the language used in philosophy, science, and daily practices, with the aim of clarifying

concepts and solving philosophical problems by clarifying how language is used. Many traditional philosophical problems stem from a misunderstanding of language and can be resolved or overcome by analyzing how words are used in ordinary language or in logical language, by focusing on language not merely as a means of expressing thought, but as that which shapes our way of thinking, and thus must be analysed to understand philosophical problems, in addition to concept analysis, not by providing metaphysical answers, but by clarifying the meanings of concepts such as "time," "knowledge," "existence," etc. Finally, there is a return to ordinary language, especially with the Oxford ordinary language school, where everyday language is seen as sufficient, even rich, for solving many philosophical problems, unlike artificial or symbolic language. Here, it is worth noting that proponents of the analytic method are greatly influenced by logic and linguistics, especially in its early stages with early Wittgenstein, Carnap, and Russell, where analysis was very precise and logical. The contemporary philosophical analytic method is associated with many prominent names, including: Bertrand Russell, Ludwig Wittgenstein (especially in his *Philosophical Investigations*), G. E. Moore, A. J. Ayer, Gilbert Ryle, and John Austin.

The origin of analysis in philosophical language can be traced back to an article published by G. E. Moore in 1920 titled "The Refutation of Idealism," in which he stated: "The problems of philosophy stem from our failure to truly grasp the question we are answering. If we tried to discover the precise meaning of the questions, most of philosophy's deceptive problems would disappear" (Al-Khouli, 2000, p. 233). The focus in philosophy from now on must be on language, and in other words, a change in the task, subject, and practice of philosophy itself, by adopting a new method of analyzing philosophical language instead of critiquing philosophical systems. This was linked to the idea that philosophical problems arise from language and the misuse of language, and that natural language is a source of error and misunderstanding, and therefore it must be replaced by an artificial language. All of this falls within the framework of the contemporary philosophical transformation, which was called the "linguistic turn" in contemporary philosophy by the positivist philosopher Gustav Bergmann, and later by the American philosopher Richard Rorty. Philosophy in the twentieth century turned towards language, becoming a linguistic philosophy that made language the primary and main subject of philosophy, with no subject beyond language. (Baghura, 2005, p. 202)

If we return to the history of philosophy and search for the origins of analysis, we would find that Plato's hypothetical method was a form of analysis, because it was an analysis of hypotheses, positions, or mental concepts either to refute them, clarify them, or select their acceptable elements and reject others that did not withstand criticism. Aristotle had many methods, but analysis predominated, as he analysed a thing into a fact, a situation, or a complex concept into its elements in a non-empirical analysis. Descartes called a part of his method analysis (representing the third step of his skeptical method, alongside intuition, synthesis, and enumeration) because he analysed his complex ideas, propositions, and situations. Perhaps the analysis of Husserl, Moore, Russell, and Wittgenstein is a development of Descartes' position in different directions.

Many philosophers have declared that philosophy, in the final analysis, is nothing but analysis, to the extent that its goal becomes analysis. This was the case with Socrates,

Locke, Hume, Moore, and others (Zidane, 1977, p. 123), whether in their analysis of matters of thought, reality, or language. As we noted earlier, philosophers differed in their view of the method of analysis itself, especially when distinguishing between contemporary and earlier analysis. However, in general, it is characterized by four properties:

1. Limited focus on language.

2. Reducing all philosophy to linguistic studies (semantics), i.e., researching the meaning of language, rules of linguistic composition, and breaking down philosophical problems.

3. Limiting research to philosophical inquiries.

4. Intersubjective treatment. (Ibrahim, 1999, p. 59)

Regarding the first property, analytic philosophers do not view language merely as a tool but as an objective of philosophical inquiry. Moore, Russell, and Wittgenstein considered philosophy to be the analysis of language or simply a study of it. This study is not similar to that of linguists or philologists and grammarians, as they study language not to formulate scientific hypotheses about it. Rather, they believe that such a study has value in helping them achieve their primary goal of resolving philosophical issues. Indeed, analytic philosophers, led by Russell, go so far as to believe that deep and intensive knowledge of the world and various external facts is closely connected to the study of language itself (Russell, 1960, p. 212). Thus, analytic philosophers practice philosophy in a completely different way from traditional philosophers. They translate philosophical problems into linguistic or grammatical terms, such as discussing whether universals exist or are beings based on whether "abstract terms" can function as "proper names." Therefore, the analytic philosopher is not concerned with discussing our concepts and reality itself as much as they are concerned with words and linguistic rules. (Rashwan, 1984, p. 157)

Moving on to the fragmentation of philosophical problems into parts, this implies an aversion to the holistic approach that aims to construct philosophical syntheses, and a move towards breaking down philosophical problems with the purpose of addressing them part by part. In their view, this leads to precision and perfection. Here, they are similar to scientists in dealing with partial matters. The analytic philosopher will not start from preconceived assumptions in their philosophical treatment by forming the foundations upon which their philosophical system rests; rather, they delve into analysis without any prior assumption. Therefore, there will be no ready-made solutions to traditional philosophical problems, because such solutions do not come from assumptions but are reached through precise analyses of the subject under investigation. (Rashwan, 1984, p. 159) Furthermore, the task of philosophy is limited only to partial problems where it reaches positive results suitable for achieving continuity in philosophical research, unlike traditional philosophical systems whose proponents aimed to provide a comprehensive view of the universe and life, which leads to contradictions among them. However, this does not mean that analytic philosophers exclude major problems from their research areas; Russell, for instance, spoke about understanding the universe. But the point is that their interest in small problems is that they view these problems as a way to reach a solution for larger problems. The problem of universals and particulars was a major problem in philosophy, but analytic philosophers

deal with it by translating it within the terms of a proposition that contains a proper noun and a predicate. (Hammoud, 2014, p. 239)

Regarding the third characteristic of the analytic method, namely its epistemic nature, it signifies a drive towards the discovery of the external world through its examination and understanding. This is why this philosophy is described as scientific. This epistemic character, which distinguishes analytic philosophy, gives the impression that it is primarily epistemological. It is a philosophy concerned with the search for truth and conducts its research in an objective, and even empirical, manner. This is because analytic philosophers are, at their core, empiricists, starting from Bacon, passing through Locke, and reaching Hume. They believe that sensory experience is a means of knowing the external world. This type of knowledge plays an important role in their stance on the issue of meaning in language, where the meaning of a proposition, according to logical positivists, is linked to the principle of empirical verification. This implies that propositions that do not express empirical facts are meaningless. Similarly, Russell's theory of direct knowledge plays a fundamental role in his linguistic philosophy, especially in his theory of descriptions in proper names, which further emphasizes the strong connection between empirical knowledge and the issue of meaning among analytic philosophers. So much so that it was said that the two questions: "How do you know?" and "What do we mean?" formed the axis of the contemporary analytic movement. (Hammoud, 2014, pp. 239-240)

Finally, regarding the fourth characteristic of the philosophical analytic method, which is intersubjective treatment, analytic philosophy uses a type of analysis that has common meaning among subjects by virtue of the language through which it is realized. In doing so, it differs from other philosophies that base their research on different types of analysis. Phenomenological philosophy, for example, conceives analysis as penetrating to the essence, and existentialism conceives analysis as revealing the existential dimension. In these two cases, analysis is not based on language and is not objectively linked to it; rather, it is based on individual personal experience. Such subjective analyses, in which the meanings of words are determined only with respect to the person using those languages, must be useless for any consistent epistemic philosophy. In short, the concept of analysis that is not linked to common intersubjective language must fall into contradictions and may be useless for the actual process of analysis. Therefore, the term "analysis" must be limited to analyses specific to intersubjective language, as is the case in analytic philosophy. (Rashwan, 1984, p. 162)

Based on the foregoing, the analytic method, as conceived by contemporary philosophers, is profoundly linked to language; it begins and ends with it, to the extent that philosophy as a whole seems to be nothing but an analysis of language. That is, it is a linguistic philosophy concerned with studying language internally and making it the subject of research due to its complex problematic nature. Here, as previously noted, the aim is not for philosophers to construct a theory of language, as linguists and philologists do. Rather, through analysis, they aim to attribute errors that people, and especially philosophers, fall into, such as believing in the existence of something in the external world when it does not exist. The origin of this is the existence of a similarity in syntactic structure that leads us to infer a semantic similarity. An example of this is someone believing that the word "nobody"

is of the same nature and function as "somebody," meaning it indicates existence. Hence, linguistic analysis in the analytic school or philosophy is nothing but a method that can overcome the obstacle of random and loose language use. (Russell, 1983, p. 217)

Analytic philosophers are interested in studying language in terms of its effects, its use, the rules of this use, and its impact on our thinking and judgments. This results from Wittgenstein's intellectual shift in his book "Tractatus Logico-Philosophicus," where he concluded that the analytic method in analytic philosophy is nothing but a deep linguistic analysis and research, and a clarification of meanings. This is achieved by carefully understanding the structure of language through a precise study of its elements and the relationships between these elements, not for scientific formulation related to language, but to clarify it and remove the confusion that arises from its misuse. (Mehran & Madin, 2004, p. 145)

Therefore, analysis as a philosophical method is nothing but what falls in the contemporary stage under what is called "linguistic analysis," "logical analysis," or "mental analysis," and its counterpart is synthesis. It seeks to break down subjects and works to clarify them and explain their linguistic meaning, so that they become clearer linguistic games and reveal their elements (the meaning to be clarified). It is necessary to examine the statements of scientists and philosophers to reveal how they were constructed and the relationships that connect words. "Meanings are not dependent on linguistic synonyms or mathematical symbols as much as they are dependent on the set of relationships that connect those words, through which an idea has been formed". (Mahmoud, 1992, p. 292)

The philosophical analytic method, as conceived by analytic philosophers, is in reality nothing but a logical operation in which we replace what we analyze with other expressions of equal meaning by revealing their logical form. If we find a correspondence in form, we judge them to be equal. To achieve this, these philosophers often resort to translating the original expressions into a symbolic language to justify the elements they involve and attempt to analyze.

Based on the foregoing, analysis as a method takes its meaning from the attempt of analytic philosophers to clarify what we know by highlighting some elements of the subject we are analyzing, so that in the analytic method, the work becomes one of clarifying or defining philosophical terms in a way that leaves no name in language without a referent that can be traced by the senses. For this reason, analysis, as a method and clarification of language, has become of great importance to contemporary analytic philosophers in showing that many of the problems that philosophy in general, and metaphysics in particular, talk about are due to the use of certain phrases or words.

4. Sources of the Philosophical Analytic Method:

Analysis, as a method and approach in philosophizing, is not new; it did not emerge with the advent of analytic philosophy (*Philosophie Analytique*). Rather, its roots go back to the time of Greek philosophers such as Socrates, Plato, and Aristotle, some medieval philosophers, and many modern philosophers such as Locke, Berkeley, Hume, and Kant. There is no doubt that analytic philosophers have absorbed this philosophical heritage, and it has had an impact on their direction.

However, in his book "A History of Western Philosophy," Bertrand Russell presented what he considered to be the important sources of the analytic method, namely the development in mathematical and natural sciences (physics) in the nineteenth and early twentieth centuries. Russell believes that anyone who traces the history of philosophy will notice two opposing currents in philosophy: one inspired by mathematical thinking, and the other largely influenced by empirical sciences. Plato, Thomas Aquinas, Spinoza, and Kant were representatives of the first current, while Democritus, Aristotle, and modern empiricists since Locke represented the second. Then came the analytic school to work on excluding the Pythagorean tendency from the principles of mathematics and blending empiricism with a specific interest in the deductive aspects of human knowledge. The goals of this school are less speculative than the goals most philosophers pursued in the past, yet some of its achievements are as solid and well-established as those of scientists.

Russell states that the source of the analytic movement stems from the achievements of those mathematicians who worked to purify mathematics from the fallacies of hasty thinking, such as "Weierstrass," "Cantor," and "Frege," the latter being of particular importance in this field (Russell, 1983, p. 783). This is especially true after the progress in mathematics, which in turn revealed a major crisis similar to the one known in physical sciences and the erosion of one of its most important principles, determinism. The discovery of non-Euclidean geometry by 'Riemann' and 'Lobachevsky,' and then Cantor's set theory, had a profound impact on contemporary philosophy, especially Anglo-Saxon philosophy. These two discoveries indicated that all mathematical postulates that were based on Euclidean geometry needed to be re-examined, and there was no longer anything absolute in them. In other words, they became questionable. This led philosophers to focus on the precise analysis of various mathematical symbols, connotations, and meanings, as well as an interest in logic, which became necessary for searching for the truth of mathematical propositions. (Al-Didi, 1967, p. 243)

Cantor's set theory, which for the first time revealed a deep crisis in mathematics previously unknown to the mathematical mind, actually led to what are called 'antinomies' or 'paradoxes'—contradictions that arise through the use of simple and clear proofs and postulates. This process led to the shaking of mathematical foundations and thus doubt in its results. For the mathematician, within set theory, the axiom stating that if the premises are correct and the proofs are sound, the result will inevitably be so—i.e., correct—ceased to hold. The opposite became possible, as results were no longer necessarily linked to premises, and here the contradiction or what is known as the mathematical paradox occurred. (Bochenski, 1968, p. 47).

Here, it became impossible to solve mathematical problems without returning to their logical analysis. It was shown that the axiom "the whole is greater than the part," which had long been considered a criterion for absolute truth and certainty, only represents a part of the truth. The whole can be equal to or smaller than the part. Thus, mathematics had to resort to logic, hoping to find its solution to this complex mathematical dilemma and problem that shook one of the most important foundations of mathematics. Perhaps this matter or this crisis actually hastened the birth of a new formal logic that emerged from the ruins of Aristotelian logic—which was no longer mathematically capable of completing

mathematical operations. This logic was neglected by modern philosophies. Robert Blanché expressed this in his book *Logic and its History from Aristotle to Russell*, where he says, "Except for Leibniz, the great philosophers of the modern era did not care about logic, despite always considering logic in principle as a philosophical branch; it only continued as teaching material". (Blanché, p. 334)

Descartes, Hegel, Kant, and other modernists remained uninterested in logic, and the latter remained neglected for a long time due to its epistemological inability to keep pace with scientific developments in the face of the increasing influence of both mathematics and physics. However, in 1947, it seemed as if things began to take another direction, restoring the actual value of logic as its founder Aristotle intended. Augustus De Morgan authored *Formal Logic: or, The Calculus of Inference, Necessary and Probable* in 1847, and his compatriot George Boole published his book *An Investigation of the Laws of Thought: On which are founded the Mathematical Theories of Logic and Probabilities* in 1854. These two books marked the beginning of contemporary mathematical logic, followed by the appearance of *Principia Mathematica* by Bertrand Russell and Alfred North Whitehead between 1910 and 1913, without forgetting the works of the Italian logician Giuseppe Peano.

The crisis in Mathematics, whether it affected Euclidean geometry or the problem of foundations in set theory, had repercussions on philosophical thought. Contemporary historians of philosophy have named the twentieth century the Age of Analysis. We hardly find in most contemporary philosophers the enormous intellectual systems or compositions or the massive philosophical doctrines that we find in traditional philosophies. Instead, there are analytic tendencies whose proponents aim to focus on method and are extremely keen on clarity in thought and meaning, as well as extreme precision in the use of language and expressive styles. The goal of all this is clarification. Instead of the philosopher aiming to build philosophical systems, as was customary, and assembling valid opinions into a cognitive system that sought to answer problems, that same philosopher now prefers and inclines towards the opposite, that is, analysis. This led to the complexity of lived reality, which led the contemporary philosopher to love complexity, where he became interested in all the ambiguous and ambiguous aspects of the world in their essence, trying to comprehend them without pouring them into rigid molds, as was the case in the past. Instead, he became interested in analyzing this reality. From this, the contemporary philosopher began to view philosophical problems as realistic problems, a matter that made him reject idealistic philosophy and become extremely keen on clarity in thought and meaning and clarifying the phrases in which philosophical problems are presented, and excluding what is doubtful and false from them. (Azmi, p. 17)

Physics, like pure mathematics, provided the material for analytic philosophy, primarily through the theories of relativity and quantum mechanics. What concerns philosophers in the theory of relativity is that it replaced the ideas of space and time with the concept of "space-time," adding what became known as the fourth dimension. It also replaced common-sense "objects" with the idea of "events" as the fabric of the world. Quantum theory confirmed this result, its philosophical importance lying in its assertion of the possibility of discontinuity in physical phenomena (Russell, 1983, p. 786). This pushed

philosophical thought towards a fundamental challenge: the need to reconsider a number of classical philosophical concepts that were considered self-evident, primarily the concept of causality. In classical mechanics, causal relationships were based on a strict, precisely predictable system. However, quantum mechanics (especially through Heisenberg's uncertainty principle) introduced the element of indeterminacy, meaning that the outcomes of some phenomena cannot be definitively predicted but are given probabilistically. This led philosophers of science to ask: Is causality an absolute natural law? Or merely a methodological tool for understanding phenomena within a specific model?

As for the principle of determinism, Albert Einstein's General Theory of Relativity (1905) redefined the precise understanding of space and time as inseparable from matter and energy. Quantum mechanics, on the other hand, ended the scientific ambition of complete control over the laws of nature and contradicted the deterministic model that had prevailed since Newton. Infinitely small worlds are not subject to deterministic logic at all but fall within a new domain that philosophers of science termed the principle of indeterminacy, just as in the world of the atom, whose study proved to be an extremely complex issue. All of this hastened the emergence of a new philosophical current that exalts probability over determinism and rethinks "science" as not describing the world as it is, but rather building approximate models subject to modification.

The conclusion from the above is that both relativity and quantum theories compelled philosophers to accept that philosophical concepts are not absolute but are influenced by the limitations that science reveals in its methods and models. Thus, philosophical analysis became more modest in its metaphysical ambition and more engaged in analyzing the language, theory, and historical context of science.

These are the general features of analytic philosophy and method and their sources. However, we must point out here that these features are not present to the same extent in all analytic philosophers, nor can these sources be sought in the same sense in every analytic philosopher. The differences among analytic thinkers are considerable, and the directions of analytic philosophy are numerous, making it difficult to make a single, specific statement that applies to all of them.

It has become clear that the analytic method is part of every philosopher's work and is not limited to empiricist philosophers; a rationalist philosopher like Descartes used it, and it is not limited to materialist philosophers; a philosopher like Plato used it. Indeed, it can be said that analysis is a prerequisite step for any synthesis among proponents of comprehensive, closed doctrines; otherwise, these doctrines would suffer from ambiguity and disorder. However, despite its advantages, this method suffered from drawbacks that can be summarized as follows:

5. Critique of the Philosophical Analytic Method

Analyzing one proposition as equivalent to another or several propositions in the logical sense of the original proposition, meaning they are equal in meaning, is a condition that Moore and Russell could not achieve. For example, a proposition about individual humans is not equivalent to a proposition about the class of humans because several particular propositions will not equal a universal proposition in meaning, except by adding a

new universality, as Russell himself said in his logic. Also, a set of propositions about sensory data is not equivalent to a proposition about a material object, because we cannot replace one side with the other. It can be said that a proposition about a material object includes propositions about sensory data, meaning that understanding this object necessitates that you have understood its attributes and characteristics. Then, the proposition that includes proposition P is not equal to proposition Q in meaning, perhaps this is what led some critics – such as Ewing – to say, in defense of Moore's and Russell's method, that the correct analysis of a proposition is not to bring equivalent propositions, but to deduce what necessarily follows from them. (Zidane, 1977, p. 119)

If one of the goals of the analytic method is to reduce things to what falls under sensory observations for ease of understanding and simplicity, and to dispense with abstract entities due to their difficulty and complexity, is it then harder to talk about material things than to talk about sensory data, for example, or is it harder to talk about the class of people than to talk about individuals?

Contemporary analytic philosophers did not achieve their primary goal of eliminating speculative or metaphysical philosophy. Moore and Russell admit that one of the subjects of philosophy is to establish general truths about the universe as a whole, which does not allow for empirical verification. Logical positivism, which spearheaded the denial of metaphysics in the second quarter of the twentieth century, fell into metaphysical positions such as subjectivism in Moritz Schlick, physicalism in Neurath, and Wittgenstein and Ryle with their theories of truth, sensory perception, memory, the nature of the mind, and the subject of mental states and processes, and so on. (Zidane, 1977, p. 119)

Indeed, after despairing of achieving a complete analysis of any concept or proposition, it seems that hope rests on persuasive analysis. If we know that the nature of a philosophical doctrine is that it does not have a logical necessity, the philosopher should not aspire to establish a doctrine that is always true or one that encompasses all aspects of truth. Rather, they establish a persuasive doctrine, just as we prefer the more persuasive philosopher's doctrine to the less persuasive one.

6. Conclusion

In conclusion, we assert that the issue of method has been of paramount importance in the world of philosophy. This is evidenced by the philosophers' eagerness, despite the multiplicity of their philosophical systems and doctrines, to theorize about an epistemological method that would serve as a mechanism for monitoring various human problems and working to solve them within steps and stages that are certainly sufficient for the purpose, according to the philosopher's conception. Therefore, the history of philosophy informs us that there is not one single philosophical method, but rather multiple methods. Perhaps the analytic method, articulated by Moore, Russell, and Wittgenstein, is one such method, making philosophical language its subject. The philosopher's task is no longer to scrutinize the solutions or proposals that philosophers arrive at, but rather to focus on the language used in those solutions and proposals. This is a simulation of the logical language of science, and through it, many philosophical problems that were no longer even problems worth investigating, because they were simply meaningless, were excluded. This is tangibly

found in metaphysical issues and the series of propositions for which we find no real equivalent. However, despite the epistemic level that the philosophical analytic method demonstrated in approaching philosophical topics and circumscribing the problems that a philosopher should focus on, it appeared epistemologically limited. If analytic philosophers imitated the scientific method in analyzing various topics, it is not necessarily true that what applies to science applies to philosophy, as they differ in form and content. For this reason, it became evident that the analytic method, like other philosophical methods, could have its foundations and methodological and epistemic steps undermined.

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