

<https://doi.org/10.23913/ricsh.v11i22.288>

Artículos científicos

Filosofía de la ciencia: Base teórico-epistemológica de la Sociología de la educación

Philosophy of Science: Theoretical-epistemological base of Sociology of education

Filosofia da ciência: fundamentos teórico-epistemológicos da sociologia da educação

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Resumen

La presente reflexión filosófica nace a partir de la necesidad de mostrar la estrecha relación que tienen la filosofía de las ciencias con la sociología, particularmente la sociología de la educación. Por lo que el objetivo principal es develar la trascendencia de las ideas filosóficas de dos épocas: El apogeo griego y la Ilustración. Lo anterior como referente de un preámbulo al nacimiento de la sociología y cómo autores de la talla de Auguste Comte, Wilhelm Dilthey, Georg Simmel o Pierre Bourdieu son pensadores que han acudido a la filosofía de las ciencias para la generación de sus grandes teorías. Lo anterior es una muestra de que la filosofía es imprescindible en los estudios sociales y que de ella se generan otras ciencias y disciplinas, tal es el caso de la sociología de la educación. Por lo tanto, la filosofía es la pieza angular de los estudios sociales y



educativos debido a que brinda el hilo conductor epistémico y metodológico de las investigaciones actuales. Para concluir, se argumenta que los estudios sociológicos-educativos exigen de la presencia de la filosofía y la epistemología de las ciencias para delimitar los alcances, el problema y la teoría de la investigación, esto con el fin de brindar rigurosidad científico-social y ofrecer un amplio y profundo panorama de fenómenos referentes a la educación en un espacio-tiempo determinado.

Palabras clave: Filosofía de la ciencia, filosofía de la educación, sociología de la educación, epistemología, educación.

Abstract

This philosophical reflection arises from the necessity of showing the close relationship between philosophy of sciences and sociology, particularly the sociology of education. That is why the main objective is exposed the importance of the philosophical ideas of two ages: The Greek heyday and the Enlightenment. The above as a referent to a preamble of the birth of sociology and how authors like Auguste Comte, Wilhelm Dilthey, Georg Simmel or Pierre Bourdieu are thinkers who have turned to the philosophy of science for creating their great theories. This is a sample that philosophy is essential in social studies and the creation of other sciences and disciplines; such is the case of sociology of education. Therefore, philosophy is the cornerstone of social and an educational study because it provides epistemic and methodological approach in current research. To sum up, it is argued that sociological-educational studies require the appearance of philosophy and epistemology of sciences to delimit the focus, problem and theory of research, this in order to provide scientific and social rigor and offer a wide and deep vision of phenomena referring to education in a specific space-time context.

Keywords: Science philosophy, educational philosophy, educational sociology, epistemology, education.

Resumo

A presente reflexão filosófica nasce da necessidade de mostrar a estreita relação que a filosofia da ciência tem com a sociologia, em particular a sociologia da educação. Portanto, o objetivo principal é revelar a importância das ideias filosóficas de duas épocas: O apogeu grego e o Iluminismo. O que precede como referência a um preâmbulo ao nascimento da sociologia e como autores da estatura de Auguste Comte, Wilhelm Dilthey, Georg Simmel ou Pierre Bourdieu são pensadores que se voltaram para a



filosofia da ciência para gerar suas grandes teorias. O exposto é um sinal de que a filosofia é essencial nos estudos sociais e que dela são geradas outras ciências e disciplinas, como é o caso da sociologia da educação. Portanto, a filosofia é a pedra angular dos estudos sociais e educacionais porque fornece o fio epistêmico e metodológico da pesquisa atual. Para concluir, argumenta-se que os estudos sociológico-educacionais requerem a presença da filosofia e da epistemologia da ciência para delimitar o escopo, o problema e a teoria da investigação, isto a fim de proporcionar rigor científico-social e oferecer uma visão ampla e profunda. visão geral dos fenômenos relacionados à educação em um determinado espaço-tempo.

Palavras-chave: Filosofia da ciência, filosofia da educação, sociologia da educação, epistemologia, educação.

Fecha Recepción: Diciembre 2021

Fecha Aceptación: Julio 2022

Introduction

The philosophy of science has been present throughout the history of mankind and it has been thanks to it that various authors have written on issues related to being, thought, the generation of knowledge, society, family, politics and education; A clear example of the importance of philosophy in humanity is that classical authors such as Plato, Socrates and Aristotle have revealed in their texts the way in which the world was conceived from their perspective, without imagining that their texts -to date- would be fundamental in the construction of thought, from the illustration to modernity and the contemporary world. Since the individual begins to be immersed in society, he generates a series of knowledge and knowledge that make him understand the world in a better way, from observation to experimentation; It can be said then that this process is a first approach to the scientific world, in fact, it is common for children to find themselves in a swing of the scientific method; however, to reach it, it is necessary for the individual to question and reflect on their existence and the conformation of the world that surrounds them.

Although in philosophy there is no method to verify that a theory is true, it is appropriate to mention that each one of the thinkers defends a theoretical-epistemological position and to achieve this, two elements are essential: 1) To have clear and precise knowledge of the theories that are similar or contrary and 2) Know the heuristic strengths and weaknesses of the position taken. The set of elements will result in a theory being erected with solid theoretical foundations that can allow said knowledge not to be displaced by a new one so easily. However, this way of acquiring knowledge is different from how it



was done in ancient times, in fact, before resorting to reason, human beings leaned towards fantasy. According to Geymonat (2009), myths were the first signs of how to account for what was happening in the world, which is why they cannot be considered as falsehoods since, in one way or another, they taught man not to limit himself to the facts they saw, but to link them with others and, furthermore, establish principles or laws. It was from the above that two factors stand out, the first is that individuals were in a position to form social groups in the places of residence, where they were surely grouped by affinity, that is, through similar philosophical ideas. ; and the second factor is that it was through the various philosophical thoughts -related or not- that individuals connected with other societies, resulting in a rich exchange of myths and ideas that were transmitted from generation to generation and that were the first traces knowledge dissemination.

In this regard, Dilthey (2013) mentions that there are three great generations of philosophical thoughts in the history of humanity: the peoples of the East, the peoples of the Mediterranean -during the classical era- and the modern peoples, for this reason the following is presented. a brief overview of the philosophy of science from the Greeks to the Enlightenment, the latter characterized by being the turning point of modern knowledge, due to the fact that ideas from the ancient Greeks were taken up, corrected and improved, as a result the philosophy was consolidated as a science and the doors were opened to other sciences, such is the case of sociology, which has philosophical thought as its theoretical-epistemological basis, taking into consideration pillars of society such as family, politics, religion and education; the latter being one of the transversal axes of philosophy and sociology since ancient times.

Brief overview of the philosophy of science

Carrying out a tour of the history of the philosophy of science is not an easy task since there are various authors who have marked the history of humanity with their thoughts and ideas. For this reason, in this section some of them have been considered to show chronologically the evolution of philosophical-scientific thought, to achieve this it has been divided into two blocks: 1) The Greek heyday and 2) The Enlightenment.

The greek heyday

Undoubtedly, the historical panorama of philosophy arises in Ancient Greece, it was there that individuals began to generate knowledge from their worldview about the context in which they lived and beyond that, to want to explain the world in general. Prior to the Greek heyday there was a time called pre-Socratic, where philosophers such as Thales of Miletus, Anaximander and Anaximenes tried to explain the ἀρχή (arjé), which is a



concept that focuses on accounting for the origin or beginning of everything in the universe. In addition to them, there were philosophers like Pythagoras who, in addition to wondering about the ἀρχή, wondered about mathematics, in fact, their formulas are still used today, which were developed more than two thousand years ago. Another of the most important pre-Socratic philosophers was Parmenides of Elea, who formulated the first theory of being in his only work entitled *On Nature*, where through verse he expresses his knowledge of the world, especially metaphysics, which is why he is considered the father of the latter (Gutiérrez, 2004).

Other pre-Socratic philosophers were notable, such as Empedocles, Anaxagoras of Clazomene and Democritus of Abdera, the first two called materialists while the last stood out for talking about matter and spirit. Empedocles distinguished himself by presenting a thesis on the four elements of the universe: earth, water, air and fire; Anaxagoras because he affirmed that matter is composed of homeomeria or spermata and that the mind is the one who controls the order of things; while Democritus assumed that there were indivisible particles called atoms. There were philosophers like Parmenides, Gorgias or Calicles who were considered sophists, they had great dialectical ability and practiced the philosophical thought called relativism, which is the opposite pole to the thought of Socrates (Gutiérrez, 2004).

Although the pre-Socratic theories marked important progress in the conception of the world, it is a reality that there was a before and after Socrates, who stood out for giving the Greeks their great splendor as philosophers. Despite not having written any work, he is considered one of the fathers of philosophy for his teachings and way of thinking, which he transmitted orally in public places, where other individuals went to chat with him about philosophical issues and about all to refute the theories of the sophists. Socrates' method of generating knowledge was simple but effective: it was based on questions to force his disciples to think and thus find possible solutions to problems of everyday life. According to Hernández Reyes (2008) this method was called maieutics, a name that Socrates himself gave it and which means (obstetrics), because his mother was a midwife and, in the case of maieutics, reference was made to the fact that the other give birth to ideas from their minds, where it was proposed to generate thoughts with a view to fair action and also directed to ethics. Maieutics is so important today that it continues to be a method for the teaching-learning process, therefore it can be said that Socrates, in addition to being a great philosopher, is considered a precursor of various educational trends and human formation. Now, Socrates stood out for being against the relativistic thinking of the sophists since the latter thought they could find a universal definition of the origin of



the universe while Socrates focuses on both him and the other thinking about the origin of things. from issues such as ethics or morals, a process that today is known as induction and is still in force.

The influence of Socratic thought was so important that his disciple Plato founded the Academy, which had an active life for approximately a millennium and was closed in the year 529 AD. C., in Plato's Academy, not only philosophy was taught but also physics, mathematics and astronomy. Unlike Socrates, Plato was prolific in writing various works called Dialogues, including The Republic, The Banquet, the Menon or the Apology, among others; It is worth mentioning that it is in Plato's Dialogues where you can learn about the life of Socrates. One of the most outstanding Dialogues of Plato is undoubtedly The Republic, this work is made up of ten books, in which he has a dialogue with Socrates and other philosophers of the time, however, it is in book seven where a of the most important ideas of Plato: The allegory of the cave. According to Gutiérrez, Plato states the following in the allegory of the cave:

In a dark cavern are several bound prisoners, since childhood; they cannot see daylight, objects and people outside. They only capture some shadows that are projected at the bottom of the cavern; outside there is a road, and, further away, a fire, which causes those shadows. One of the prisoners escapes and is initially dazzled by daylight. Little by little he gets used to seeing and looking, amazed, at objects and people that he did not even suspect before. He returns with his companions, but they do not believe what he tells them; they are convinced that the only reality is what they see at the bottom of the cave (Gutiérrez, 2004, pp. 45-46).

In the allegory of the cave, Plato sees in the prisoners the majority of human beings that inhabit the world -the cave-, the outside is the intellectual world, the fire represents the good and finally the prisoner who escapes, is the representation of the philosopher, who the more he leaves the cave and enters the intellectual world, he begins to see and know things that others do not see, since the prisoners who are inside can only see the shadows that are reflected by the fire, for Therefore, the further into the cave you are, the less likely you are to know the real world. Plato's text provides a broad overview of knowledge about the world of ideas and their separation to obtain what he calls the true reality, to reach that point the human being needs to obtain knowledge, which according to Gutiérrez (2004) arises from prenatal life with the soul of each individual, so each person has the essential knowledge from the moment they are in the womb, however, it is not enough to



have the soul because, at birth, the individual forgets all that knowledge, for this reason experience is necessary, through it the person will remember the physical, mathematical, astronomical knowledge, etc., that he had when he was in the gestation process.

Until now, two issues can be mentioned about Socrates and Plato: the first is that both, in addition to focusing their lives on the study of philosophy, also did so for education, since both transmitted their knowledge through various teaching models- learning, while Socrates did it through maieutics, Plato did it at the Academy; and the second is that derived from the teaching process of Socrates towards Plato, the latter provided essential contributions for philosophy, education and politics -in his text *The Republic*-, among which his idea that every ruler should be a philosopher stands out. so that then his government would function in a more thoughtful and analytical way and that the State has the obligation to educate children and provide them with the best tools to train them holistically. Precisely Plato, concerned about the generation and transmission of his knowledge, founded his Academy and that is where he met his most outstanding disciple: Aristotle.

Aristotle was the last great philosopher of the Greek heyday, who although he was a great disciple of Plato, his thought is opposed to his. Among his most famous works are *Metaphysics*, *Organon*, *Philosophy of Science*, *Rhetoric*, *Politics* and *Nicomachean Ethics*. Aristotle was characterized by following in the footsteps of his teacher Plato, by founding his own school which he called *El Liceo*, in which he trained young disciples who were interested in philosophy, especially in topics related to ethics, politics and metaphysics. . According to Gutiérrez (2004) Aristotle represents the maturity of philosophy in Greece by mentioning that the episteme is not about a set of objective knowledge but about syllogism and logic, therefore, it can be said that Aristotle rejects Plato's approach.

Why consider these three greats of Greek philosophy? In the first place because they represent the climax and maturity of Greek philosophy, therefore they marked an era characterized by prolific works. Secondly, because it is clear that since the Socratics there was a strong concern for education, proof of this was the use of maieutics by Socrates, the foundation of Plato's Academy and Aristotle's Lyceum, therefore, not The link that exists between philosophy and education cannot be separated, nor can it be left aside that philosophy has been substantive for the birth of other sciences. For this reason, below is a very brief account of what happened to the Enlightenment.



The Enlightenment: Prolific Period of Philosophy

As a preamble to the Enlightenment, it can be mentioned that during the fifteenth, sixteenth and mid-seventeenth centuries a humanistic movement called the Renaissance was born, which arose from the ideas of the worldview of the Greeks and also of the Christians. According to Gutiérrez (2004) it is in this period when ideas passed from theocentrism to anthropocentrism, that is, ideas no longer revolved around God, but around man and his inspiration; In addition, one of the most important contributions of the Renaissance is that the Greek canons were retaken, an example of this are the paintings and sculptures of greats such as Michelangelo, Da Vinci or Raphael, with this they realize the pre-eminence of the arts, science and also the emergence of the human sciences, as part of the study of the individual through issues such as pedagogy. Although philosophy did not have as much acceptance as art, it can be mentioned that in the Renaissance flashes were seen that would later come highly acceptable theories not only in philosophy, but also in education, pedagogy and sociology. Despite this, it can be said that utopias that provided vast descriptions of quasi-perfect models of nations, governments and, above all, morality, were fruitfully developed at this time. According to Venegas Renault (2004) it is in the Renaissance when the market arises (in the fifteenth century) which resulted in the forms of daily life being transformed in such a way that there was the development of new ways of producing and thinking, therefore the educational, labor and cultural aspirations were increasing; To achieve the above, it was essential to return to the readings of the ancient Greek philosophers and from there correct, improve and develop new ways of explaining the phenomena that occurred in the world, both physical and social. Among the most important thinkers of the Renaissance we can find Juan de Médici, Nicolás Machiavelli, Jean Jacques Rousseau, William Shakespeare, Miguel de Cervantes Saavedra, Claudio Tolomeo, Galileo Galilei, Johannes Gutenberg, Francis Bacon, among others.

Approximately three centuries passed for the new wave of reformulations of scientific-philosophical thought to arrive between the 17th and 18th centuries through the period called The Enlightenment or the Age of Enlightenment, it was called in this way because the knowledge generated at this time they were seen as a light before the ignorance that blinded humanity. It is in the Enlightenment that what is known today as modern philosophy arises; One of its most notable representatives is René Descartes, who studied Humanities, Sciences and Scholastic Philosophy (Gutiérrez, 2004), however, it was on November 10, 1619 when he had three dreams in which he observed a rigorous science from mathematics and it is from that moment that begins with his works focused not only



on philosophy, but also on mathematics and with it analytic geometry arises. In the field of philosophy, his works *Principles of Philosophy*, *Treatise on the passions of the soul* and *Discourse on the method* stood out. To direct reason well and seek truth in the sciences, it is in the latter that he suggests his famous method rules, which are the preamble to the current rules of the scientific method. The proposals by Descartes (2009) are mentioned below: 1) Do not accept something as true, unless you know for sure what it is, 2) Divide the difficulties and examine them in as many parts as possible, 3) Order your thoughts, starting with the simplest and then with the most complex, and 4) Make comprehensive counts and general reviews of everything without omitting anything. As can be seen, Descartes poses methodological doubts, it is from them that his famous phrase *Cogito, ergo sum* (I think, therefore I am) arises. Despite the fact that Descartes' philosophical postulates are not commonly used today, it is worth mentioning that he was the turning point of modern philosophy since other thinkers of the time read his works and took them as inspiration, such is the case of Immanuel Kant who established himself as one of the most important philosophers of all time, this after the publication of his main works: *Critique of Pure Reason*, *Critique of Practical Reason* and *Critique of Judgment*. In them, Kant exposes his a priori categories - mental structures that the individual imposes on matter and that are independent of experience - which are a way of organizing the world in a structured way. To the above, its main contribution must be added: the object is the one that is around the subject and not the other way around (Gutiérrez, 2004), this is called the Copernican turn due to the comparison made between Kant and Galileo, when the latter rejected Ptolemy's geocentric theory where it is mentioned that the sun revolves around the earth and that this is the center of the universe.

Kant, not only carried out works focused on morality or the phenomena of nature, he also made important contributions to education, in his work *Pedagogy*, Kant (2018) establishes the following: "Man is the only creature that has to be educated. He understanding by education care (support, maintenance), discipline and instruction, together with education. According to this, man is a small child, educating and student." (p. 29), "Only through education can man become a man. He is not, but what education makes him be. It is to be noted that man is educated only by men, who are equally educated." (pp. 31-32), "Education is an art, whose practice must be perfected by many generations. (p.34). Such statements show Kant's interest in the fact that the people were educated and that, furthermore, not everyone can be an educator, in fact Kant (1985) suggests that the noblest job is to be an educator and establishes that education must be disciplinary, must cultivate culture (through reading, writing and music), that the student



can adapt to human society and have influence to exert positive changes in it and that moralization be attended to so that he has the criteria to choose good ends (Kant, 2018). Kant's influence on other thinkers was undeniable, especially in the work of Georg Wilhelm Friedrich Hegel who, upon reading Critique of Pure Reason, perceives that the Kantian dialectic approach can be analyzed from a different perspective; for Kant dialectics is the ability to create concepts or sets of experiences (a priori) while for Hegel it corresponds to thought or set of knowledge of a finite nature (reflective thought). It is from the above that Hegel formulates his own theory of dialectics, which led him to be the main theoretician of the so-called idealist epistemology. Among Hegel's most influential works the following can be mentioned: Phenomenology of Spirit, Encyclopedia of Philosophical Sciences, Lectures on the History of Philosophy and Philosophy of Law.

It can be said that dialectics is his most important theory, in this regard Hegel (2019, p. 60) mentions the following: "This dialectical movement that consciousness carries out in itself, both in its knowledge and in its object, in when the new true object springs up before it, it is properly what will be called experience [Erfahrung]", that is why it is said that the Hegelian dialectic is applied to finite things, according to Kojève (1982) it is divided into three tenses: thesis, antithesis and synthesis. The first refers to being itself, the second to what comes from nature and the third is the absolute idea, therefore, it can be said that dialectics is the very and true nature of things and that Hegel in his Phenomenology of the spirit, proposes that consciousness reaches the individual when he takes possession of himself, that is, he has consciousness for himself (a concept that Marx would later take up again). Regarding Hegelian phenomenology, Kojève (1982) proposes that it can be studied and analyzed as a pedagogical introduction to the ontology and epistemology of the social sciences, since this work is one of the most important to date. The impact of Phenomenology of Spirit was so profound that when Karl Marx read it he took the concept of dialectics to develop his theory on historical materialism also known as dialectical materialism, which instead of focusing on spirit focuses on matter, thus Therefore, it can be said that if the spirit is first and then the matter, we are referring to Hegelian idealism and, if it is matter first and then the spirit, we are referring to Marxism. According to Gutiérrez (2004) Marx does not deny thought, intelligence or culture, what is important in Marxist theory is that the spiritual comes from matter itself, therefore the material is its central objective. Regarding dialectical materialism, Bobbio and Bovero (1984) suggest that there is a Hegelian-Marxian model, which combines the dialectics of both thinkers and focuses on interpreting the reality of modern society from political



spheres. Such a dichotomy recognizes social formations of a historical-social type, that is, it focuses on the study of social structures, in the same way Kosik (1967) establishes that the concept of dialectics is to understand what the social structure means without leaving aside the sense of the dialectic that is to extract concepts and abstract in a unitary way the analytical categories. Faced with such epistemological innovation, theoretical and methodological challenges would come to carry out the philosophical and later sociological task.

For Marx, the individual faces situations that he has not created, such as nature, his human nature, and the way others act. However, Marx emphasizes that in order to expose reality, it is necessary to analyze the base where the reality is found. structure of society and the social relations that coexist in it. Dialectical materialism was applied to interpret the class struggle, which is nothing more than the result of a historical evolution; Currently, Marxist theory is widely accepted, which is why his works continue to be valid, examples of which are: Capital, Communist Manifesto, The Holy Family, the Eighteenth Brumaire of Louis Bonaparte and Economic and Philosophical Writings. Undoubtedly, Marxist thought is the preamble to the birth of sociology as a social science, so this brief account of the history of philosophy had the purpose of showing not only its importance in the history of humanity, but also that other sciences they arose from the construction of philosophical knowledge, such is the case of sociology, for this reason the following section addresses the birth of said science and its approach to the study of the society-education dichotomy.

Emergence of sociology as a science from philosophy and the constitution of the sociology of education

After presenting some of the most influential thinkers of philosophy in Ancient Greece and the Enlightenment, a common denominator can be seen in these times: the concern to account for what happens not only in the natural world, but also in the social This includes more particular situations such as education. It is from the need to explain and analyze social phenomena that a new science arises: sociology.

Various authors focus their thinking on studying social phenomena such as Rousseau, Saint Simon, Kant, Hegel or Marx -just to mention a few-, from which a combination of knowledge emerges: social issues explained from philosophy with a strict systematic order that expose in a clear, precise and coherent way the so-called European social facts. For this reason, the Frenchman Auguste Comte explains the way of seeing the social world in his masterpiece: Course in Positive Philosophy. In it, Comte (2013) proposed in



seventy-two lessons, how to learn positive philosophy with the following subjects: mathematics, science of simple bodies (astronomy, physics and chemistry) and science of organized bodies (physiology and social physics). From Comte's proposal there are several important ideas to rescue, first of all, the use of the word positive to expose a certain type of philosophy that referred to the creation of a rigorous and systematic scientific method (such as that used in the exact sciences). Second, the use of the concept of social physics to talk about the study of societies, which is currently known as sociology.

According to Giner (2011), in 1824 and after a long life dedicated to the study of society, Comte coined the concept of sociology for the first time, taking the Latin words socius and logos, that is, the study of society; This hybrid term was used in his Positive Philosophy Course in 1838 and it is from him that more and more social scientists began to use the word sociology to refer to the study of society, for this reason Comte is considered one of the fathers of sociology.

However, there were works by other social scientists who were still wondering what the theoretical-epistemological approaches of a science different from philosophy would be, but which would take contributions from it to show what was happening in society, such is the case of Wilhelm Dilthey (1949) who in his text Introduction to the Sciences of the Spirit, mentions that the historical-social reality he calls sciences of the spirit, this derived from a limitation of the sciences of nature versus the humanities. From the first pages of this text, it can be noted that his criticism of historical reason lies in the fact that the natural sciences have been predominant for the study of man and his environment, however, it was necessary to introspect human behavior, so the sciences of the spirit arise, which are a way of criticizing man to know himself. Taking the above into consideration, the critique of historical reason is the one that, through the spiritual sciences, seeks to discover, analyze and explain historical-social facts, which are intimately linked to human nature and the spiritual.

Dilthey (1949 y 1974) suggests that the difference between the spiritual sciences and the natural sciences lies in the fact that the latter have tried to show the functioning of the world through exact formulas, while the spiritual sciences cannot be understood by their material conditions, the author exemplifies by saying that carbon, hydrogen, nitrogen, and oxygen atoms can be studied materially, but behavior cannot be understood with that exactness.

Very much in the manner of Kant, Dilthey (1949) uses the critique of historical reason as a means to understand the capacity that the human world has in history, in addition to



accounting for the social and cultural events that have occurred throughout history. weather.

Wilhelm Dilthey is undoubtedly a character who, with his theory of the spiritual sciences, opened the door for the social sciences to be considered as such. It would be necessary to reflect on various reasons why the Diltheyan theoretical-epistemological heritage is fundamental today, especially for sociology.

Dilthey (1949, p.32) mentioned that: “The sciences of the spirit do not constitute a whole with a logical structure that would be analogous to the articulation that natural knowledge offers us; their connection has developed in another way and it is necessary to consider how it has grown historically”, with this it can be said that he already saw a great advance in the constitution of the study of the behavior of human beings. Although positivist philosophy would become sociology, the truth is that certain general rules were determined to understand human behavior, as long as issues such as culture and context were considered, which today are essential for the study of society.

After Dilthey, another thinker emerged who was equally interested in philosophy, but also in history, so his research works give an account of what happens in a given space and time, his name was Georg Simmel, sociologist and German philosopher. Through his most important works: *Fundamental Problems of Philosophy*, *Fundamental Questions of Sociology* and *Sociology: Studies on the Forms of Socialization*, it can be noted that Simmel has strong ideological influences from Kant, Hegel, Leibniz and his contemporary Weber, already that throughout the texts suggests the constitution of the individual from psychological, social, cultural and interpersonal issues that are essential for the interaction of individuals in society, for this reason he is one of the founders of sociological studies, in where in addition to considering great theories to explain a phenomenon, the researcher reflects on events that occur in particular spaces that result in the study of individual behavior.

Simmel's (2003) idea of sociability is based on two elements: the first refers to the fact that every human society can be distinguished by its content and form, that is, by cultural, political, social, economic issues of a given space (structure) and the second refers to the reciprocal impact of the interaction of individuals; this last idea is elementary to understand his theory, since he establishes that the individual not only acts according to the structure in which he develops, but through certain impulses -normally associated with emotions-, therefore, it cannot be predict what will happen to an individual, because their behavior is closely related to their impulses and emotions.



Considering the above, then we could ask ourselves, for Simmel, how does the socialization process work? For the author, this is the way in which the union of individuals grows in countless ways according to their ideals or interests (which are driven by their personal motivations). Derived from this, it is considered that individual behavior is essential in the construction of social groups within the social structure, the latter being the one that houses the various communities that are organized by the same interests. Simmel (2003) suggests that the climax of socialization is that the individual is fully integrated into a social group, knowing the rules provided by the structure but also being free to exercise their impulses without affecting third parties, the author defines it as following form:

What in this is properly "society" consists in being one with another, one for another and one against another by means of which individual contents and interests undergo formation or promotion through impulse or purpose. (Simmel, 2003, p. 82).

Simmel calls this idea the playful form of socialization, which behaves *mutatis mutandis*, therefore, it will change according to what is happening in social reality. However, there is a threshold of sociability, which is related to the subjectivity of being, since it is not possible to know exactly what happens inside the thought of an individual until he acts, therefore, there is a certain type imprecision in the actions of the human being. Now, where did Simmel's ideas come from? One of the theorists who influenced his thinking was Immanuel Kant. In Simmel's works, a strong Kantian influence can be noted, especially texts such as *Critique of Pure Reason* and *Critique of Practical Reason*, in the latter expressing his most representative ideas of morality. It is clear that Simmel has a Kantian influence but he does not exactly agree with all his ideas, the interesting thing about his work is that he takes up issues such as reason and morality from Kant to make a critique focused on the fact that individuals, having impulses own can not follow neither the reason, nor the moral issues dictated by the structure.

Therefore, it can be said that it is throughout life that the individual is constituted of both objectivity and subjectivity in accordance with the society to which he belongs, which will occupy a certain space-time. In his work *Sociology: studies on the forms of socialization*, Simmel (2014) establishes that it is not the space that has social importance, but the linkage and connection of the parts that are interacting in space, where two elements converge: nature and individuals. This connection established by Simmel has been the turning point for both sociological research and regional studies, for this reason his thinking is still as valid as it was a century ago.



It is with Simmel that sociology begins to be seen as a new science focused on social study, however, in the 19th century another thinker considered the father of sociology was born: Émile Durkheim.

According to Giner (2011) it was Durkheim who somehow wanted to make sociology an independent and modern discipline, which had its own links through rules, which is why he is known for writing about social cohesion, structure and also division of labor. However, he is also known for being the first sociologist to talk about education and its importance to society. In fact, he makes a work entitled Education and Sociology, where he starts from the Kantian idea that suggests that the object of education is to develop in individuals the perfection of which it is susceptible, before this statement Durkheim (2009) establishes that first "Perfection in education" should be defined and secondly, very probably each individual could not achieve perfection because the potentialities are different in each person; Collado Ruano (2017) suggests that in Education and Sociology, Durkheim actually seeks to explain educational phenomena from a social perspective rather than from a pedagogical perspective, an absolutely laudable issue on the part of the French thinker.

Based on the above, Durkheim (2009) establishes his own definition of education, suggesting that the educational systems that exist and have existed should be considered in order to later relate them and separate the things they have in common; This is because the author argued that education is multiple, since it varies according to the caste of individuals, that is, the education received by a worker is not the same as that received by a bourgeois, for this reason he offers the following explanation:

Each profession, in fact, constitutes a sui generis environment that demands particular aptitudes and special knowledge, in which certain ideas, certain customs, certain ways of seeing things predominate: and how the child should be prepared in view of the function that will be called to perform, education from a certain age, can no longer remain the same for all subjects to whom it applies. This is why we see all civilized countries tending more and more to diversify and specialize; and this specialization becomes more precocious every day (Durkheim, 2009, p. 45).

Therefore, it can be inferred that education is one of the poles of society, where the social group to which one belongs, the physical and mental qualities (to enter school) and also the class, are taken into consideration. family, possessions and professions of individuals, therefore Durkheim (2009) states that society together with the social environment are



what determine the type of education that children and young people in their communities will have, this results in that there is heterogeneity between social classes, but also that there is homogeneity between the same social classes that are at the same level. The above explanation is the preamble to the education formula suggested by the author:

Education is the action exercised by adult generations on those who are not yet mature for social life. Its object is to arouse and develop in the child a certain number of physical, intellectual and moral states, which are required of him by political society as a whole and by the special environment for which he is particularly destined. (Durkheim, 2009, p. 47).

Durkheim undoubtedly sees in education an agent of change that, moreover, is one of the pillars of society; he sees the need to study what happens in schools, in order to better understand social phenomena; in this regard Simbaña Gallardo, Jaramillo Naranjo and Vinueza Vinueza (2017) mention that the author suggests moral education as a way of social transformation since this would allow homogeneity among children and young people. Without knowing it, Durkheim approached what is now known as structuralism and functionalism, since he focused on learning about social structures, for example in the family, the division of labor or the school. In addition, said thinker not only used theoretical-epistemological bases to found sociology, but also saw certain phenomena - such as education- as socialization processes; An example of this is when Giddens and Sutton (2014) mention that Durkheim studied education in the industrial sector and how child socialization worked, he was able to observe that the school was not only the space where children and young people lived together, but that they were taught specialized tasks so that their insertion in the industrial labor field would be easier. It was for these investigations that Durkheim, in addition to being considered one of the fathers of sociology, is also the father of the Sociology of education.

Durkheimian thought was the basis for other authors to talk about sociology and particularly the sociology of education, such is the case of Talcott Parsons who conducted studies on the role of education in society, valuing -unlike Durkheim- the individual achievements, this thought arose because Parsons saw that children were evaluated with universal knowledge systems (exams), therefore they themselves achieved their merits with their own effort and dedication (Parsons and Bales, 1956). According to Giddens and Sutton (2014), functionalists -such as Parsons- defend education systems since they fulfill social functions in general, which results in more or less homogeneous societies.



There were other researchers who focused on studying education as a pillar of society, such is the case of Bowles and Gintis (1976) who, after conducting various studies in schools in the United States, observed that these are participants in socialization for a reason: they are collaborators in the production of potential workers for their capitalist companies. It is clear that these authors are strongly influenced by Marxist theory and that they see a close relationship between the production of labor (from schools) with the hiring of the best-trained students. Therefore, according to Giddens and Sutton (2014), the school corresponds to the structures of working life.

Taking into consideration the Marxist influence on contemporary authors who are focused on the sociology of education, Henry Giroux cannot be left aside, who is considered one of the fathers of critical pedagogy and who has stated in various texts that society is in various conflicts (political, economic, environmental, social, cultural, etc.), therefore, the school is only an instrument that marks social inequalities in a deeper way (Giroux, 1983). For this reason, Paulo Freire and Henry Giroux, through critical pedagogy, propose a free and democratic education and, above all, an education that trains students as responsible individuals in society and who are capable of analyzing the context in which they live. . In this regard, Díaz-Larenas, Ossa-Cornejo, Palma-Luengo, Lagos-San Martín and Boudon-Araneda (2019) mention that critical thinking today is seen as essential in the abilities of individuals, for which it is important to mention that each person throughout his life should know the logic of critical thinking, especially because it is applied to different contexts, therefore this process will be unique in each individual but will have the purpose of improving the social environment.

Although critical pedagogy seems to be the ideal educational model, it should be mentioned that the capitalist system has been so influential in the world that the educational system in general faces enormous inequalities. For this reason, the sociologist Pierre Bourdieu was the one who dedicated his life to the study of the French educational system, revealing the deep social inequalities that exist in the school, they are so strong that even he observed that the choice of a career usually depends on the management of capitals that they have. For this reason, Bourdieu is known for his theory of capitals, in said structuralist epistemological position, the author suggests that there are four types of capitals: economic, cultural, social and symbolic. Economic capital is the one that is directly related to money management and suggests that the more money you have, the easier it is to insert yourself into cultural and social life because you have the necessary means to pay for it. Cultural capital is for Bourdieu (1987) the most important and is divided into three: Embedded capital (how the individual acquires knowledge for daily



life, usually this capital is acquired from home), objectified capital (when the individual applies knowledge previously incorporated) and institutionalized capital (it is the most important and involves the acquisition of a document that certifies or validates that the individual has specific knowledge). Social capital is the social potential that an individual has, it can be seen as the set of relationships that a person makes throughout his life. And symbolic capital is the value that society gives to an individual.

The capitals mentioned are the ones that will be used to better position themselves in the social field, however, Bourdieu (1987, 2008B and 2011) suggests that cultural capital is the most important since it is the set of knowledge that the individual acquired throughout his life and validated through a certification, therefore, the better academically prepared an individual is, the easier it will be for him to obtain the other capitals. Said acquisition of cultural capital is carried out through the habitus, which is manifested through the development of strategies and ways of thinking of the subject to adapt to society, usually the habitus is related to the social class to which one belongs. However, Bourdieu also makes a notable distinction from economic capital, because if you have enough of it, it may be easier to acquire cultural capital, an example of this is when you travel, when you go to a prestigious school or when you are a polyglot. According to Bourdieu and Passeron (1996 and 2008a) the management of capital is usually acquired by generations, this process is known as reproduction and it is nothing more than the act of repeating what the previous generation did, therefore for the authors, moving from one social class to another is very difficult, unless there is sufficient management of cultural capital, which can be the door to improve the lifestyle.

Bourdieu and Passeron not only show how the educational system of social structures works, but through long investigations they were able to observe and prove that the individuals who are in a social class remain in it for generations, unless -if is of a low social stratification- sufficient cultural capital is acquired to excel in the social field and in this way obtain the other capitals. This not only accounts for the importance of studying society through sociological science, but it is also essential to study educational and pedagogical processes to show what happens in specific contexts.

The sociological thought shown in this document is nothing more than the result of various authors who have focused their lives on the study of the philosophy of science and it is thanks to it that sociology currently exists and is becoming more and more consolidated as a social science every day. without leaving aside that social studies on education are increasingly important. However, it is essential to mention that sociologists and specialists in the sociology of education continue to constantly consider philosophical



thought to guide their research, especially to determine the epistemology that will guide research projects.

Conclusions

Carrying out a theoretical-epistemological journey on how the philosophy of science has been an important engine for the generation of knowledge and the emergence of other sciences is not an easy task, first of all because there are countless philosophers who have had a great impact on current philosophical and epistemological currents; secondly, because choosing the authors who will make up a text that shows a very brief philosophical and sociological introduction, is quite a titanic task; and thirdly, to search for a theoretical-epistemic thread that provides the reader not only with a coherent and chronological idea of the various thinkers, but also to explain why a new social science has emerged, in this case, sociology. For this reason it was necessary to mention that the philosophy of science has been a fundamental part of the history of the human being, this derived from the great value that the individual has given to the generation of knowledge, for which it can be concluded by mentioning the transmission of Said knowledge dates back to the first civilizations of man, but was probably formalized through the teachings of Ancient Greece.

The great Greek philosophers have been so important that their thought is still present today; If we make a count of the countries that have careers to train philosophers, we will surely see that there is at least one university that focuses on this, and if we analyze the careers that they have that are related to philosophy, we will surely find that there is some relationship in all of them. It should not be forgotten that, from the Greeks to some thinkers of the Middle Ages, the Renaissance or the Enlightenment, they carried out investigations of mathematical philosophy, this in order to account for physical, chemical and mathematical phenomena that occurred on a day-to-day basis. .

This text shows the close relationship that exists between philosophy and sociology - especially the sociology of education- since the former was the door that opened the way to social studies, as Comte predicted in his Positive Philosophy Course. , by incorporating social studies from a philosophical perspective with a rigorous systematic structure. Currently, it can be mentioned that sociological studies must contain a section focused on philosophy because the various epistemological paths are the ones that reveal the type of theory and methodology to be used in research so that they obtain scientific rigor.

Regarding the sociology of education, it was born from the sociologist's need to study one of the pillars of societies: education. So again, we return to philosophy, especially to



Kantian thought, since it proposes studies on the meaning of education and educational perfection through the acquisition of knowledge.

What Kant did not imagine is that his work Pedagogy would be a watershed not only in philosophy but also in the sociology of education since it would be read, corrected and increased by authors such as Durkheim or Bourdieu. It is from the Kantian pedagogy that the need arises to study educational models in certain contexts, opening a panorama of comparisons between the various spaces on their teaching system.

In this regard, Durkheim did an excellent job in shaping a precise definition of education, but above all in making an extraordinary link between sociology and education, since education is currently a major target of study and analysis by sociologists, especially by sociologists. issues of social inequality.

It should not be left to a lake that one of the greatest representatives of sociology emerged from the sociology of education: Pierre Bourdieu, who dedicated his life to the study of educational systems and social inequalities in Europe and who, faithful disciples of his theory have been in charge of applying his structuralist methodology around the world.

It is from Bourdieu's studies on social inequality that authors such as Freire and Giroux focus on the constitution of critical pedagogy, which in addition to taking Marxism as a philosophical reference, is a theory focused on the unequal, for what it has wide acceptance in Latin America.

Derived from the above, it is essential to mention that studies on the sociology of education are of vital importance in areas that suffer from high rates of marginalization, poverty, extreme poverty and therefore social inequality; however, the recommendation to carry them out satisfactorily is the knowledge of philosophy, its currents of thought and the correct connection of these ideas with the sociological and epistemological positions that account for socio-educational events in a given space-time.



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