

UDC 125

THE PROBLEM OF FINITENESS AND INFINITY OF MATTER AND THE WORLD IN THE PHILOSOPHY OF ABU ALI IBN SINA

Tauirbay Akniyet

Akniyet_2020@mail.ru

L.N. Gumilyov Eurasian National University

4 course student of 5B020100-Philosophy, Astana, Kazakhstan

Scientific manager: Senior Lecturer Shoyinbayeva G.A

Abu Ali al-Hassan Ibn Sina (c. 980–1037 ad), known as Avicenna (from Latin), was a doctor, a naturalist, a mathematician, a mystic poet, and a court minister. A Persian by birth, he was born in Afshan, in the Bukhara province. His main philosophical work *Kitab Al-Shifa* (The Book of Healing), known in Latin as *Liber Sufficientia*, along with its abbreviated processing *Kitab an-Najat* (The Book of Liberation) forced many to view it as a prominent Neo-Platonist - integrator of the works of Aristotle. However, his intellectual insight elevates him so much that he turns him from a simple interpreter into a full-fledged, deep thinker. His philosophical studies cover mathematics, music, logic, physical and mental sciences, as well as metaphysics and theology. In this article we will consider the problems of finiteness and infinity of matter and the world from the point of view of Ibn Sina.

Problems of finiteness and infinity of matter and the world are important factors that have a close relationship with the attributes of matter. The finiteness and infinity of matter and the world also seem relative in the philosophy of the thinker. Basically, Abu Ali, when considering this issue, states that, since the world is considered a body, it must have a limb. In “A Treatise on Definitions”, finiteness is defined by Ibn Sina in the following way: “Finiteness is (phenomenon) due to which a thing has a quantity, beyond which there is nothing to add” (2, 687). In this treatise, the thinker concludes his view of infinity with the following sentence: “Infinity is the number in which, if we take (all) its existing parts, except them, without any addition, anything (all the same) will remain” (2, 687). The unity of the world is justified by the thinker, including on the basis of the finiteness of the world. According to Ibn Sina, finiteness is boundaries, all having limbs, i.e. boundaries. Therefore, it is the finiteness that is determined by the boundaries. Infinity has no limit. In other words, finiteness is a quantity that has certain boundaries, and infinity is a quantity that has no boundaries.

Another important point representing the dialectical nature of the philosophy of Ibn Sina, as already mentioned, is the unity of the world. The thinker, in his treatise *The Guide to Philosophy*, writes: “A world made up of many simple things is one and it has no outside, how can a body be out of the world? If the world had an external side, then it would be either empty, which is not the case, or complete. Therefore, whatever they may be, they are after the world, and it does not go back either to emptiness or to fullness. Therefore, the world does not have the outside, and it is the

desired one, or it is infinite, and this is absurd”(2, 534). Based on this formulation, it can be concluded that, according to Ibn Sina, the world is one, everything exists in the world, the world is the universe, the whole being is in the world, therefore nothing exists after or outside the world, not even emptiness and not fullness. However, Ibn Sina argues that the world is "the desired, or it is infinite, and this is absurd." Here, the infinity of the world for the thinker turns out to be both absurd and unthinkable.

The unity of the world is also reflected in Ibn Sina in his book *Danish-name*, where for Ibn Sina not only earth, but the universe, including space, are considered a body: "Therefore, the whole world is one body" (1, 398). It will become known that the world is not only a body, but a single body. In other words, between all existing bodies, from the microcosm to the macrocosm, there is a unity that ensures the integrity and dialectical nature of the world from the point of view of Ibn Sina.

It was proved that the world exists from the very beginning and forever according to Ibn Sina, but the last quotation deals with the unity of the world and the thinker thinks that everything that exists, exists in the world, nothing can exist outside the world. From this point of view, the world according to Ibn Sina has limits and is finite. That which is beyond the borders of the world shows that this is also a continuation of the world itself. So, according to Ibn Sina, the universe has a certain limit. If the world has certain boundaries, then isn't being dominated after the border? As the thinker himself says "the world does not go back either to emptiness or to fullness". This is what Ibn Sina considers absurd and incomprehensible.

Further, in the treatise "A Guide to Philosophy", the thinker writes: "If [the world] has no limit, then it does not have a direction either. Therefore, if the direction in its essence [in itself] does not have a stop, then it does not have a special position and sensual indication does not apply to it, and it is not a intelligible object. Therefore, it has no essence”(2, 535). It follows from this that, according to Ibn Sina, the infinite world cannot have essence, but for the thinker the world must have essence, therefore he assumes that the world has concrete boundaries. Further, Ibn Sina in his treatise "The Springs of Wisdom" writes the following: "It is unacceptable that somebody or some size would not be either empty, full, or real in number and endless in nature. The fact is that within any infinite one can assume some kind of boundary. It can also be assumed beyond this boundary that there are other boundaries on some sides”(2, 614). In the same treatise he writes: "Therefore, infinite distances are impossible by their being. Therefore, if the distances and sides were limited, the world would be finite and the world would not have the outside, and if the world does not have the outside, then it would not have anything from the outside. The being of a highly honored God and spiritual beings from among angels is above any place, not being inside or outside”(2, 615).

If you look at it more deeply, it will become clear from the above quotations that Ibn Sina's statement about finiteness and unity of the world shows that supernatural forces have no place in the world, i.e. they, especially God, are out of the world. Such a conclusion clearly shows that the thinker was not a pantheist. Thus, with the affirmation of the finiteness of the world, our thinker means only the material objective world, and not the spiritual one. According to him, God and spiritual beings do not exist inside or outside the world, i.e. they specifically anywhere in the material world do not exist. In other words, they do not need matter for their existence. They exist abstractly, spiritually.

On the other hand, it seems that the finiteness of the world according to Ibn Sina is not absolute, but relative. It turns out that the thinker believes every boundary. Indeed, the thinker himself proves with many facts the infinity of matter and the world through the attributes of matter. Attributes of matter - motion, space and time are original and eternal, thanks to which matter, then the world also becomes original and eternal. Therefore, the world, being primordial and eternal, must be infinite. For it is impossible that the world, being primordial and eternal, is not infinite. That which is original and eternal must be infinite. Another fact that testifies to the infinity of the world according to Ibn Sina, is the divisibility of the atom to infinity. Consequently, if in the microcosm the atom is divided into smaller particles to infinity, then in the macrocosm in the same way the increase in the world will continue to infinity.

Based on this, we can conclude that according to the thinker from a spatial point of view, the world is finite. But from the point of view of its existence in time, the world is infinite. According to A. Ogurtsov, the world for Ibn Sina is not only original, but also infinite in time. The concept of "Abad" he means the infinity of the existence of the world in time. Thus, the eternity of the world in Ibn Sina means its beginningless and infinite existence in time, and not its immutability and permanence (4,126).

A. Ogurtsov will conclude that, despite the recognition, Ibn Sina is of God and the world, his philosophy cannot be characterized as dualistic. It is basically, in its initial principle, a monistic philosophy (4,134). However, A. Ogurtsov in another place indicates the deistic character of the philosopher's philosophy, which will be discussed at the end of the next paragraph.

Some researchers, taking into account this version of the solution of the main issue of Ibn Sina's philosophy, consider its philosophy as medieval materialism. On the other hand, considering this problem, A. Ogurtsov concludes that for Ibn Sina, all the same, the preceding of God of matter and the world is basic, although not in time, but in essence. The fact is that in numbers a unit precedes a two, two triples, and so on, and two cannot precede a logical conclusion, although they are at the same time one after the other, exactly in this form God precedes matter and its attributes, otherwise they are all original and eternal.

From this point of view, the conclusions of A. Ogurtsov about this problem can be formulated as follows: under the influence of the religious demands of its time, Avicenna philosophy has a compromise character and loses its militant essence and is increasingly drawing closer to deism (4,136). The deistic character of the doctrine of the thinker is repeatedly indicated by A. Ogurtsov and other researchers. In another place, A. Ogurtsov emphasizes that not only separate quotations taken out of context lead to deism, but the whole spirit of Ibn Sina's natural philosophy, all his natural-scientific research, in which he constantly explained natural phenomena based on their natural, physical reasons (4,87).

As already mentioned above, Ibn Sina, for affirming the finiteness and infinity of matter and the world, very appropriately uses the attributes of matter itself. In particular, in the book "Eastern Philosophy", he writes: "The movement and time are endless. The fact that they are infinite, is spoken in the literal sense, sometimes used in the sense of absolute negation, and sometimes not in an absolutely negative sense. What is spoken of in an absolutely negative sense means a thing that is devoid of the concept of finiteness, that is, it does not have a quantity, just as, for example, they say that the point is infinite ... Infinity, which is not in absolute negative relation, is in the opposite true finiteness, namely, the nature and essence of a thing, it is characteristic to have a finiteness, but in reality it does not have it ... "(2, 240). The fact is that for Ibn Sina everything and everybody has a limb and boundaries, and the world because it is a body, it must be finite. In addition, according to Ibn Sina, not only the world, but also space is also a body, therefore it can be convincingly concluded that, according to Ibn Sina, the whole universe must have a finiteness.

According to Ibn Sina's explanation, the type of thing and its nature have a limb. And according to the thinker, infinity has two meanings, where it is inherently for it to exist infinitely, but it really does not exist, such as, for example, the periphery of a circle. This means that it is infinite, that is, there really is no point in it that completes the line. On the contrary, it is continuous and has no division (2,241). Infinity in a figurative sense is said when it is impossible to reach its end by movement, such as, for example, the distance between the earth and sky.

Further in the book "Eastern Philosophy" Ibn Sina writes: "It would be more correct to say that infinity really always exists, since separation always exists as something that does not reach such a redistribution, for which there is no other redistribution in the origin of being. In short, the truly infinite is not without what is potentially, which means that it does not end with the disappearance of the nature of potency. The nature of potency in it is always preserved, therefore the constancy and essence of infinity is associated with any being potentially, and this potency is associated with the nature of matter, which is the nature of non-existence without the nature of form, which is really existing "(2,245). Here it can be seen that the thinker connects the essence of infinity with being potentially, i.e. with matter, which without form can exist in potency. From this

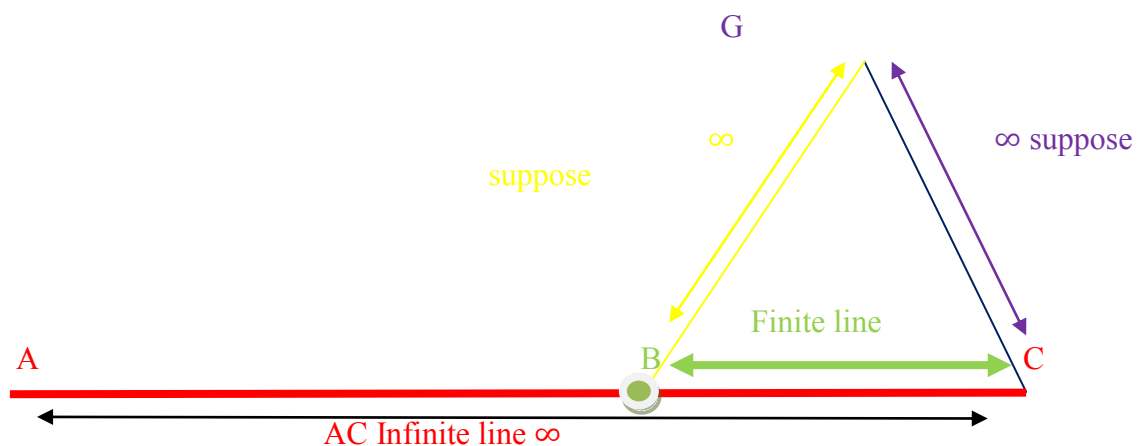
we can conclude that the finiteness of the world or of all bodies is determined by the union of matter and form. In other words, for the world to have extremities, it must exist in reality.

Ibn Sina predominantly points to the finiteness of bodies and the infinity of matter. In his opinion, without a doubt, everybody has finiteness, whereas matter can be infinite. Emergence and annihilation, realizing through physical beings, are also associated with infinite matter: “As for the question of origin and annihilation, they, it seems, are incessant states. Therefore, I think that they are associated with infinite matter. Infinite entities also belong here ”(2,247). On the basis of this idea, one can clearly see the modern philosophical point of view about the law of unity and the struggle of opposites. After all, the emergence and destruction of this struggle of opposites, and the infinite matter of generalizing the category of all existence is the unity of the world.

If we pay more attention to the ideas of Ibn Sina about the finiteness and infinity of matter, it becomes clear that his theory of matter largely coincides with modern views. For example, as has already been emphasized above, from the point of view of the thinker, matter is infinite, also its attributes. We will find the same opinion literally in the textbook of dialectical materialism, in which it is written that infinity in structure, space and time, which is closely related to other important attributes of matter, is a universal property of matter. The infinity of matter in time arises from its total incompatibility and indestructibility, the absoluteness of its existence (5,187).

Regarding the finiteness of the world, they also reminded that although Ibn Sina considers matter and its attributes to be original, eternal and endless, but he assumes that the world is finite. As was indicated, according to the thinker, the world is a body, and every body of course. However, the question arises that the finite world, which exists due to infinite matter, how will it become finite in infinity? It turns out that the problem of the finiteness of the world, and the infinity of matter, still remains unsolved. For in the teachings of modern scholars and philosophers there are different ideas. Among contemporary philosophers, the ideas of the founder of the theory of relativity, Albert Einstein, are similar to the ideas of Ibn Sina. Einstein, like Ibn Sina, believes that the world is finite in space (5, 189), and matter and its attributes are endless. On the other hand, it will become clear that the finite world supposed by Ibn Sina, although it is considered finite, but in essence has a close relationship with attributes of matter that are infinite. However, Ibn Sina proves that the world is a body, and the body is made up of matter and form, something that is composed of matter and form, it has boundaries.

In the Danish-name section of the metaphysics, the thinker shows the finiteness in more detail and specifically in this form: “The preceding and subsequent are either in nature, such as, for example, in numbers, or by assumption, for example, in measurements... This is proved by that if there were an infinite number in things that by nature have preceded together, then one could indicate its place and limit, either physically or mentally. We take the infinite line AC and denote the point B on it, and from B to C we assume some finite distance or number.



If (line) from G to C is infinite and you add the BG to it, then the (line) BG will be infinite. And if (line) from G to C will be infinite and mentally attach the GB to the BC so that they are

connected, then if the GB and the BC continue in the same direction, then both will be equal, but this is impossible, since the GC is smaller and the BC more. If the GC remains (unchanged), and the BC will be greater than the BG by the segment BG, which is finite. Therefore, the BC is also finite. Therefore, it has been established that such a number and measure cannot be infinite”(1, 312-313).

As we see, Ibn Sina shows finiteness in two forms: natural-objective and mental-logical. With the assumption of an infinite line of AC and with the addition between AC - BG, the thinker proves that if the AC are considered infinite, then the BG that are between them are finite. Thus, all bodies inevitably have a limb, including the world, which consists of sets of bodies.

Considering all of the above, we conclude that, according to Ibn Sina, matter is the original, eternal and infinite substance. The world made up of matter and form in relation to time is also infinite, original and eternal. However, from a spatial point of view, the world is finite, because the space covering all bodies is considered to be a body itself, and each body is finite. The infinite body does not exist. Since the world is composed of bodies, it must be finite.

LITERATURE:

1. Abu Ali Ibn Sina (Avicenna). Writings Volume 1. - Moscow: Exmo, 2005. - 959 p.
2. Abu Ali Ibn Sina (Avicenna). Writings Volume 2. - Moscow: Exmo, 2005. - 841 p.
3. Abu Ali Ibn Sina. Philosophy Guide // Abu Ali Ibn Sina (Avicenna). Writings Volume 2. - Moscow, 2006. - 841 p.
4. Ogurtsov, A.P. Natural philosophy. - St. Petersburg: Lenizdat, 1985. - 256 p.
5. Dialectical materialism. (A textbook for graduate students of non-philosophical specialties). –M.: Higher School, 1975. -374 p.