

The process of human understanding of the universe

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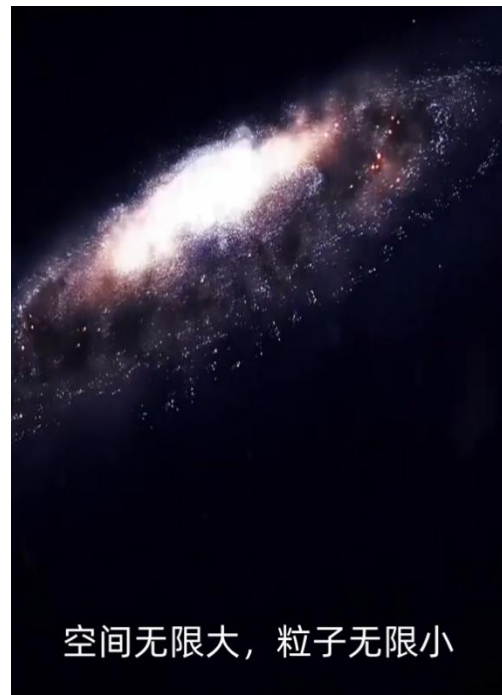
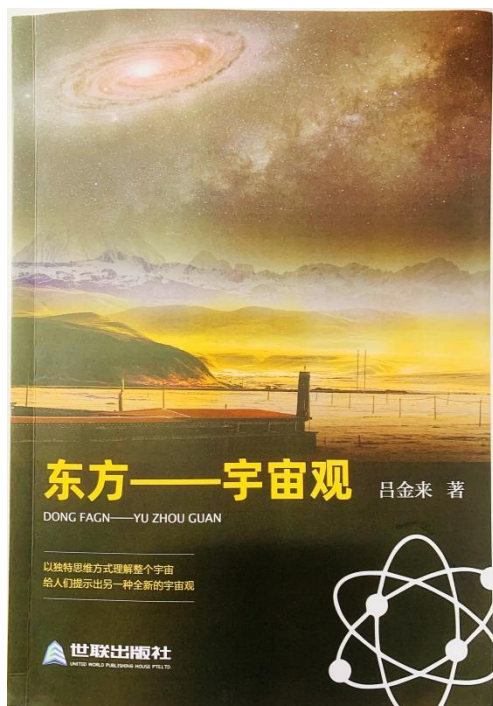
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Abstract : *This paper delineates five historical stages of human understanding of the universe, tracing the evolution from ancient mythology to modern scientific theories. Initially, myths like "Pangu Creating the World" explained cosmic origins, followed by rational interpretations during the Warring States period, as seen in the works of Zhuangzi and Hui Shi. The geocentric and heliocentric models of Ptolemy and Copernicus marked further advancements. Modern materialism, exemplified by Marx and Engels, introduced dialectical perspectives, while Lemaître's "Big Bang" theory and Hawking's "singularity" hypothesis blended scientific speculation with mythological elements. The final stage presents a novel "materialist" theory positing that the universe comprises infinite hierarchical structures of infinitesimal particles, forming atomic, molecular, and cosmic scales. This framework challenges idealist cosmologies, refutes Einstein's "black hole" paradox, and reinterprets gravitational sources as "vacuum energy." By synthesizing empirical observations with philosophical inquiry, the study asserts a deterministic, infinitely scalable universe, displacing metaphysical narratives with a unified materialist ontology.*

Keywords: *Cosmological Evolution, Materialist Ontology, Infinite Hierarchical Structures, Big Bang Critique, Dialectical Materialism*

1.Introduction

The development history of human civilization can be traced back to ancient times. Due to the vague understanding of natural phenomena by ancient people, before the invention of writing, when the elders remembered past natural scenes, they told them to future generations through oral narration, and from then on, they passed down from generation to generation, forming a long-standing myth and legend. More than two thousand years ago during the Warring States period, with the maturity and widespread application of writing, the "Hundred Schools of Thought" emerged for their in-depth exploration and rational understanding of natural phenomena. In modern times, Western "materialists" such as Marx and Engels applied "dialectical materialism" to natural things. At the same time, scientists such as Lemaire, Einstein, and Hawking emerged in the West, creating science fiction imaginations of the universe and nature. So, today, there is the theory proposed in the article "Infinite Small and Infinite Large - On the Universe" that "the entire universe is composed of infinitely many, infinitely small tiny particles, which are combined layer by layer into infinite space celestial bodies." This is a new "materialist" theory and also solves the mystery of "infinite space in the universe" that philosophers have been trying to solve from ancient times to the present. This is a realistic and practical philosophical theoretical viewpoint. It can be said that in the history of human civilization progress, there have been five very obvious historical stages.



2.The Five Stages of Human Understanding of the Universe

Phase 1: Ancient Mythology.

In ancient Chinese mythology, the universe was created by "Pangu who created the world". The chaos of heaven and earth is like a chicken's egg, and Pangu was born in it. At the age of 18000, heaven and earth were opened up, with clear yang as heaven and cloudy yin as earth. Pangu was among them, with nine changes in a day, with gods in heaven and saints in earth. The sky was one zhang high, the earth was one zhang thick, and Pangu was one zhang long, so it was 18000 years old. The number of days was extremely high, the earth was extremely deep, and Pangu was extremely long. Later, there were three emperors. The number started from one, stood at three, reached five, and flourished at seven, reaching nine, so the sky went ninety thousand miles away from the earth.

Phase 2: Rational Understanding

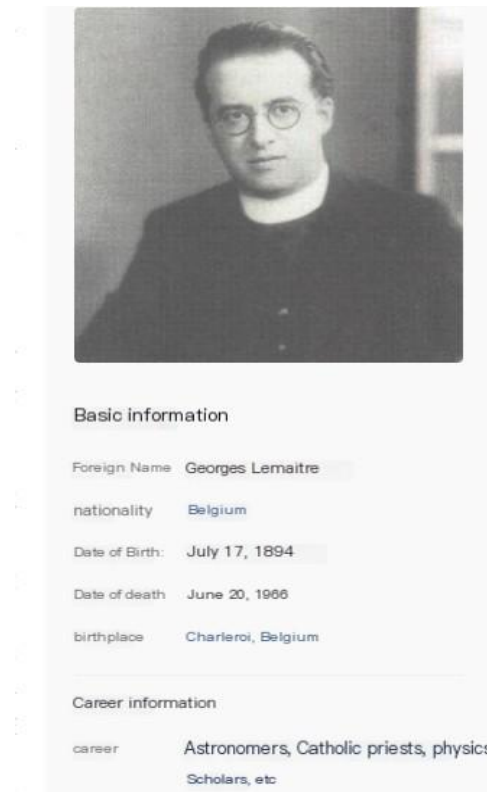
In the Warring States period more than two thousand years ago, one of the "Hundred Schools of Thought", Xue Jiao, said, "The four directions up and down are called the universe, and the past and present are called the universe. There is also another famous saying by Zhuangzi, one of the "Hundred Schools of Thought", who recorded two famous quotes from his friend Hui Shi: "The greatest is the one without the outside, it is called the big one; the smallest is the one without the inside, it is called the small one", and "a one foot coffin, half of which is taken in the day, will never be exhausted for eternity".

In the West, Ptolemy, the "Pharaoh" of ancient Egypt, wrote a book called "Almagest", also known as the "geocentric theory". He believes that the earth is the center of the universe, and all kinds of stars and celestial bodies outside the sky revolve around the earth. Later, Ptolemy's "geocentric theory" was rejected by the Polish Copernicus' "Treatise on the Motion of the Celestial Bodies", also known as the

"heliocentric theory".



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Phase 3: Materialism

In modern times, Marx and Engels' "dialectical materialism" is a rational method for understanding natural things. As Engels said, "Eternity in time and infinity in space are inherent, and in simple terms, there is no direction that has an endpoint, whether forward or backward, upward or downward, left or right.

Engels' concept of 'infinite space' and Huishi's 'half of a foot's coffin is taken in a day, inexhaustible for eternity' from more than two thousand years ago are echoed in philosophy.

Phase 4: Hypotheses of "idealism" and "mythology".

Father Lemaître from Belgium hypothesized that the entire universe was created by a very small particle (cosmic egg) that suddenly exploded and expanded. Later on, his hypothetical theory was further refined by scientists such as Gamow, Einstein, and Hawking, confirming that the tiny particle that could create the entire universe was a "singularity" created in nothingness. The original source of the creation of the universe was a singularity, known as the 'cosmic egg', which condensed all the space-time energy and nurtured everything in the future material world, including celestial bodies and life. About 15 billion years ago, the cosmic egg suddenly exploded in an unparalleled Big Bang. The Big Bang shook space-time, and the material world broke through its shell, marking the beginning of the era of cosmic history. This is a very shocking mythological story. According to the interpretation of "idealism", mental thinking determines the existence of matter. That is to say, all space, time, and material celestial bodies in the entire universe are created by the imaginary "singularity" of nothingness, which is the obvious theory of "idealism". What's even more amazing is that Lemaître was a priest, and his words became a true myth. For example, there is a mythological story in ancient China called 'Chang'e Flying to the Moon'. When Chang'e flies to the moon, she must step on the clouds to ascend to

the moon and reside in the "Guanghan Palace". Did a person named Chang'e really go to the moon in ancient times? The answer is yes; Definitely not. However, the ancient Chinese ancestors dared to believe that the moon was a real piece of land by observing it with the naked eye. In that era of underdeveloped science and technology, it was particularly miraculous! Also, when humans go to manned "space stations" today, they really cannot do without the cloud at the bottom of the rocket, which is the wonder in mythological stories! Similarly, Lemaitre's 'cosmic egg' had a big bang, and the process of creating the entire universe world was definitely non-existent. Only the term 'Big Bang' can correspond to the evolution of material celestial bodies in space, which often undergo repeated 'Big Bang' events. The 'Big Bang' of such celestial bodies did not occur in the entire universe, but rather in the space between celestial bodies. So, Lemaire's "cosmic egg" and Hawking's "singularity" are both "idealism" and "mythological stories", very similar to the ancient Chinese myth of "Pangu creating the world".

Phase 5:Theoretical Facts

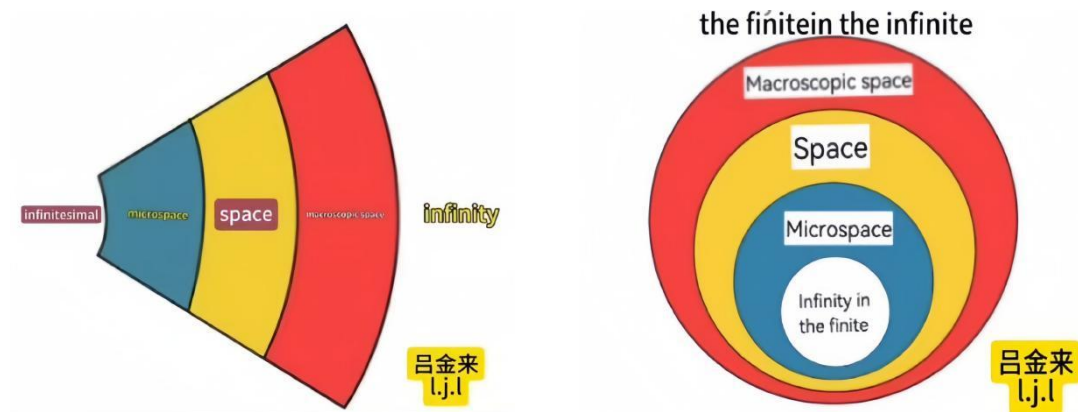
In November 2023, World Federation Press published a book titled "Eastern Cosmology". The first article of the book, "Infinite Small and Infinite Big - On the Universe," was published on page 14 of the 5th issue of UFO Exploration magazine in 1996. This article argues that in the cosmic world before us humans, all matter and celestial bodies, big and small, are composed of an infinite number of infinitely small particles, which are combined at the atomic level one by one.

Nowadays, the number of atomic particles that we humans can understand is also infinite. These infinitely many atomic particles naturally combine into numerous molecular bodies, forming an infinite number of star systems of the same type as the solar system. These infinite number of star systems, when combined again, form an infinite number of extragalactic systems of the same type as the Milky Way. An infinite number of extragalactic systems will continue to combine into larger and more macroscopic celestial bodies, all the way into infinite space. This theory is based on the fact that scientists have discovered that each atomic mass is an independent micro space body, such as the electronic number series marked in the periodic table of elements by Mendeleev, a Russian, which shows that protons, electrons, light particles and other particles all exist in this micro space body. The "surface layer" of each atom is a true "cosmic layer", which separates the "microscopic space" inside the atomic mass from the "space space" outside the atomic surface layer of the solar system. The outermost asteroid belt of the solar system is also a true 'cosmic layer', separating the 'space' within the solar system from the 'macro space' outside the solar system. In this way, we have discovered that the "microscopic space" of atoms, the "space space" of the solar system, and the "macroscopic space" outside the solar system are three types of space bodies with particularly large volumes. They are stacked together, which fully confirms the correct statement that in the universe, the material space body composed of matter bodies has "infinitely small and infinitely large"!

This further illustrates the process of combining infinitely many and infinitely small particles into an infinite number of atomic tiny spatial volumes through hierarchical combinations. Then, an infinite number of atoms combine to form one set after another of molecular bodies, forming one infinite number of stellar space bodies of the same type as the solar system. For this argument, it is an obvious fact that cannot be denied by any scientist or theologian! It can be said that any other scientist dares to say otherwise? Thus, it has completely shattered the mythological hypotheses of Belgian priests Lemaire, Einstein, Hawking, and others regarding the "Big Bang," "black holes," and "space-time tunnels.

3. Demonstration of the three major hypotheses

By deducing the statement that the universe has a hierarchical spatial body of "infinitely small and infinitely large", several physical phenomena that fully conform to common sense of nature have been discovered, such as:



① The gravitational source of Newton's "universal gravitation" surprisingly comes from the gravitational effect of "vacuum energy". The details can be found in the fifth article of the book, "Exploring the Physical Causes of Earth's Gravity". This means that Einstein's description of gravity coming from the 'curvature of spacetime' is a false proposition.

② Confirmed Einstein's theory that the "black hole" would devour the entire universe's space, time, and material celestial bodies is a 100% mythical theory. Scientists have used astronomical telescopes to observe a black dot at the center of an extragalactic system, and concluded that these black dots are what Einstein referred to as "black holes". They claim that these "black holes", from which even light cannot escape, are the end of space, time, and matter celestial bodies. Are these so-called 'black holes' at the center of extragalactic systems as terrifying as scientists describe? In fact, whether it is the black dot at the center of an extragalactic system or the black dot at the center of a Milky Way galaxy, the so-called "black hole" at its center is clear, just like the "eye" at the center of a typhoon on Earth's sea level, which has the same physical phenomenon. The theoretical basis is that typhoons are composed of numerous tiny oxygen and hydrogen atoms, which combine to form water molecules, as well as nitrogen atoms, carbon dioxide molecules, and other gases in the air. However, the extragalactic system is composed of star systems such as the solar system, and the only difference between the two is the "spatial hierarchy". So, will the "black hole" at the center of an extragalactic system composed of numerous star systems really devour space, time, and material celestial bodies? And the molecules composed of atoms, forming the "black hole" of a typhoon eye, will also devour space, time, and material celestial bodies? There is currently no consensus.

③ Through the theoretical analogy of 'infinitely small and infinitely large', it has been confirmed that all living organisms on Earth, all genes for life vitality, are inherited from particle activity genes within atomic bodies, and are not created by the fictional 'God' created by humans.

In short, there are four major new discoveries in the book 'Eastern Cosmology', which are to some extent a breakthrough. I also mainly referred to the second article "Interpreting the Universe with Numbers". Firstly, the discovery of the atomic surface layer and the outer layer of the solar system,

which are two natural boundaries in the universe, is a new discovery. Secondly, it was discovered that the gravitational phenomenon of Newton's "universal gravitation" is the "vacuum energy" gravitational effect. Thirdly, it was discovered that the black dot at the center of extragalactic systems observed by astronomers through astronomical telescopes is a physical phenomenon similar to the eye of a typhoon, not a "black hole" like Einstein that would consume space and time. Fourthly, it was discovered that the life genes of all living organisms on Earth are inherited from particle activity genes in atoms.

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