

THE ANTHROPIC PRINCIPLE

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*If man is the crown of nature, it is a horror.
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Introduction

The geocentric system of the world originated in Ancient Greece, it became the basis of ancient and medieval astronomy and cosmology.

Aristotle's proofs: The Earth is a heavy body, the natural place for heavy bodies is the center of the universe; as experience shows, all heavy bodies fall vertically, and since they move towards the center of the world, therefore, the Earth is in the center. Second, the orbital motion of the Earth, which was assumed by the Philolaus (representative of the Pythagorean school), should lead to a parallactic shift of the stars, but this shift is not observed.

Since the heliocentric hypothesis opposed geocentrism it provoked a sharp reaction from representatives of religious philosophy: stoic Cleanthes called for Aristarchus to be brought to justice for moving the "Hearth of Peace" (the Earth).

Cosmocentrism also rejected geocentrism, but existed as a direction of ancient philosophy, Aristotle adhered to cosmocentrism at the same time, besides him – Democritus and Plato.

In the Middle Ages, geocentrism was adopted by theologians, because it corresponded to the Bible. It is argued that the Bible cannot be taken literally, but in this case it can be understood in any way.

According to the cosmological principle of Aristarchus of Samos-Copernicus, the Earth is not a privileged, undifferentiated planet among others orbiting the Sun. Accordingly, the heliocentric system of the world caused the reaction of the Inquisition.

Theocentrism became widespread, which placed God at the center of the world as the absolute, perfect, highest being, the source of all life and all good. Theocentrism considered the worship of God and service of God to be the basis of morality, and imitation and likeness to God to be the highest goal of man (see [1]).

In modern times, philosophy has formulated the principle of mediocrity, which states that the Earth and humanity are not something highlighted in the Universe, there are or may be a large number of planets and civilizations. It is sometimes incorrectly claimed that this principle is a generalization of the Copernican principle.

The idea of a plurality of inhabited worlds has been suggested in all ages, including Engels, so it makes no sense to formulate this idea as a principle.

In addition, the Solar System is quite specific - its orbit in the Galaxy is located on the corotational circle, where the period of rotation of the star around the Galactic core coincides with the period of rotation of the spiral sleeves - places of active star formation. Therefore, the Sun (unlike most stars in the Galaxy) very rarely passes through sleeves, where there are likely close supernova outbreaks that could destroy life on Earth. The Earth is also specific enough to create life similar to Earth life, one needs a small eccentricity of the planet's orbit, a special chemical composition of the stars, and many other conditions.

Accordingly, as the opposite extreme, and also in view of the Fermi paradox, the hypothesis of a unique Earth arose (see, for example, [2]).

Characteristics of the anthropic principle

The anthropic principle is that "We see the universe as such because only in such a universe an observer, a human being, could have arisen." This principle was proposed to explain "from a scientific point of view" why a number of non-trivial relations between fundamental physical parameters necessary for the existence of intelligent life exists in the observable Universe.

This formulation is quite abstract. Therefore, it breaks down into two components: in the literal sense, it is meaningless and illogical (the cause is replaced by the effect): the meat is delicious because I want to eat, the

trees are green because I like it, if I were a tree, the wind would blow because the trees are swaying. In a word, "what is honey for in the world? For me to eat it." Accordingly, the anthropic principle in this sense should be called more appropriately: the Winnie Pooh principle.

On the other hand, it is a tautology: "The universe is like this because I see it like this." And even in tautology, the cause is replaced by the effect, the correct tautology: "I see the universe this way because it is this way". Hence cubism. Avangarde and postmodern in physics.

The physicist Grib writes frankly: "But then, as if someone's "invisible hand" moved the numbers and the resonance with the formation of oxygen with the disappearance of carbon was forbidden." And further: "Here we see a revival of the biblical anthropocentric idea of creation. The universe is built on the principle of design-an architectural project... the laws of physics... are programs..." ([3]).

Moreover, Grib, a specialist in quantum field theory, is well aware that the world, in principle, can not be any program.

But if nature is so arranged that the resonance with the disappearance of carbon is forbidden, why do you need to invent an additional entity, a god who "moved" the numbers?

And there is no anthropocentrism in the Bible, there is theocentrism in the Bible, a God, God is the focus, not man. The World Flood is a remarkable example of anti-anthropocentrism. The archangel or the devil has power over a person – this is also anti-anthropocentrism.

According to the Bible, God gives man dominion over fish, cattle, reptiles, etc., but not over the planet or the universe. Nowhere in the Bible is it mentioned that God gave man dominion over the Moon, the Sun, or the constellations.

Modern physics is thoroughly anti-anthropocentric, starting with tectonic shifts, the cooling of the Earth's core and the transformation of the Sun into a red giant, continuing with the collision with the Andromeda nebula and ending with the heat death of the Universe (Brian Green). Not to mention the depletion of the planet's hydrocarbons over the next 200 years, without any options.

Astronomer Oleg Verkhodanov points out that dark matter is necessary from the very beginning of the universe, if there are no dark matter particles, one can't "collect" in the primary plasma enough large inhomogeneities, dark matter particles collect protons around themselves. Dark matter is also necessary to collect gas into stars, and there is no fine tuning. However, Verkhodanov not associate this necessity with the anthropic principle and emphasizes that the anthropic principle doesn't work.

Nevertheless, Lee Smolin and Linde are tried to be used the anthropic principle as one of the physical axioms.

Verkhodanov argues that the anthropic principle died with the Linde' theory of inflation. Linde himself doesn't think so. "Is it possible, - he says in his lectures, - that consciousness, like space-time, has its own internal degrees of freedom, the neglect of which leads to a fundamentally incomplete description of the universe? What if our sensations are just as real (or perhaps even more real) than material objects?»

That is. Linde does not put forward anything new, he only repeats the old, already dead primitive idealism of Plato, Hegel, Joseph Dietzgen. It remains only to make a direct experiment, how the human will rejects the perihelion of Mercury, how a close look can improve the quality of metal melting, to investigate the radiation of a soul separate from the human body, etc.

Whether someone obliged Linde to take a feasible part in the ideological struggle on the side of the world bourgeoisie, whether he was active in the heart's desire, whether age-related changes affected his intelligence, or whether these changes are an integral part of the decline in the intellectual qualification around the world – it remains unknown.

The weak anthropic principle was formulated in 1955 by A. L. Zelmanov and by G. M. Ildis in 1957 at the All-Union Conference on Problems of Extragalactic Astronomy and Cosmology: "We observe not an arbitrary region of the Universe, but one whose special structure made it suitable for the emergence and development of life".

In 1961, the same idea was published by R. Dicke. The term "anthropic principle" was proposed in 1973 by B. Carter.

L. B. Okun clarifies: "... the weak anthropic principle comes from the idea of an ensemble containing an infinitely large number of universes". This means that there are different values of the world constants in the Universe, but the observation of some of their values has more high probability, because in the regions where the values take these meanings, the probability of a creation of observer is higher. In other words, the values of the world constants that are sharply different from our own are not observed, because where they are, there are no observers".

It's meaningless. From the condition of the absence of observers, it cannot be deduced that there are no such universes, otherwise the laws of nature must be obliged to depend on the point of view of observers.

A strong anthropic principle: The universe must have properties that allow intelligent life to develop. The strong anthropic principle (the anthropic principle of participation) was formulated in 1983 by D. Wheeler: "Observers are necessary for finding the Universe of being" (Wikipedia).

Due to its abstractness, this formulation implicitly includes or may include four statements:

- 1) god created the universe in such a way and that he subtly adjusted the world constants with such values that a person appeared in it, other Universes disappeared (god destroyed them, they died in the course of natural selection, etc.);
- 2) the laws of the Universe are such that man existed in it;
- 3) there is at least one in a number of existing universes in which a person can exist ;
- 4) the laws of nature are such that in the course of nature development, a person arises.

The content of the first statement is not related to science, but to a socio-psychological deviation, it is exhausted by the fact that capital requires physicists to fight Marxism in any form, including under the slogan of Thomas Aquinas, that science becomes the servant of religion.

The second statement echoes hylozoism, finalism and reductionism, it implies that the Universe is specially designed for the emergence of man, elementary particles knew about man in advance and chose what mass to possess, what coupling constants to assign, so that an observer could appear in the universe. Or God.

But the second statement is based on von Neumann's subjectively idealistic interpretation of quantum mechanics, which includes the observer among the postulates of quantum mechanics, which, of course, is incorrect and somehow leads to the recognition of the existence of God.

The third statement is meaningless, because it is unprovable. S. Weinberg is of the same opinion. The fourth statement is the only one that can be related to science.

L. B. Okun regards both anthropic principles as speculative.

According to Alex Vilenkin, " the anthropic explanation of fine tuning is unscientific... the anthropic principle can only serve to explain what we already know. It never predicts anything, and therefore cannot be checked". David Gross argues that the anthropic principle only demonstrates our inability to answer complex questions.

Australian philosopher Warwick Fox considers as tautology the justification of anthropocentrism to be that man is the center of being because only he can make judgments about the world. In his opinion, anthropocentrism is the desire of man to dominate nature. The same position is shared by Verkhodanov.

American professor Lynn White identifies the Judeo-Christian tradition for the emergence of anthropocentrism, according to which everything is created for a person whom God has chosen to rule the earth (Wikipedia). Many researches point to this tradition, but religions do not contain anthropocentrism.

Linde formulates both anthropic principles differently, without focusing on the "observer»:

"The weak anthropic principle simply says that if the universe consists of parts with different properties, then we shall live where our life is possible... The strong anthropic principle states that the universe should have been created in such a way that our existence was possible in it. At first glance, this statement cannot be true, because humanity, which emerged 10^{10} years after the establishment of the basic properties of our universe, could not in any way affect its structure and the properties of elementary particles in it."

Who goes to the forest, who goes for firewood.

First, it is true that a person cannot exist inside the stars, so in Linde's formulation, the weak principle is meaningless.

Secondly, Linde contradicts himself, because according to his assumption, thoughts are even more real than reality. In addition, the inability of a person to influence the properties of elementary particles has no connection with the initial design of the Universe "for a person".

Third, the strong principle in Linde's formulation could be relevant to science if there were not a combination of "was created".

Linde argues that "most of the problems associated with the anthropic principle were solved shortly after the creation of inflationary cosmology". But his model does not solve any "problems", Linde only complements the previous content of the principle, indicating that in other exponentially large parts of the universe, where the masses of elementary particles are different, "life of our type will be impossible".

If his theory is correct, Linde argues, then "physics alone is not capable of providing a complete explanation of all the properties of our part of the universe. The same physical theory can describe different regions of the universe with completely different properties. According to this scenario, we live in a four-dimensional region of the universe with our physical laws, not because regions of other dimensions or with other laws are impossible or unlikely, but simply because life like ours in them is impossible. Hence follows a simple proof of the weak anthropic principle, not subject to the usual objections to it. There is no any need for some supernatural cause that creates our universe with parameters specially selected for the possibility of our existence. The inflationary universe itself, without any external intervention, creates exponentially large regions with all possible laws of physics. And we should no longer be surprised that conditions suitable for our existence are realized on such a large scale - even if they were initially established only in our neighborhood, inflation establishes them in the entire observable part of the universe."

Thus Linde brought nothing new to the subject of the anthropic principle. The world constants are also not supernatural. The anthropic principle states that the global constants are in order to make it possible for intelligent life. Linde's theory states that inflation is in order for intelligent life to become possible. Then Linde goes on to include the observer in the principle, wanting "to use this theory to strengthen the anthropic principle by assuming that all fundamental constants take on different values in different quantum states of the universe."

But Linde doesn't stop halfway.

"The multi-world provides a solid formal basis for the further development (!!! B. I.) of the anthropic principle. But the main reason for the introduction of this structure is not the anthropic principle at all. As already mentioned, we need to know what appears first in the formation of the universe - the universe itself or the laws governing it... We can assume that there is only one possible law that exists in some way even before the universe, but this would be something like a democratic election with one candidate on the ballot. Perhaps the best option is to consider all possible combinations of universes, the laws that describe them, and the observers who inhabit them. Having a choice among the different universes in the multi-world structure, we can continue, discarding those where our life would be impossible."

Let's left aside that Linde separates laws of the Universe from the Universe, that they still may appear before the Universe, i.e. from God, and that the bourgeois ideology of pluralism gained their status in physics. Everyone thinks about a cutlet, and this is an ontological principle!

However, if string theory tries to discard unnecessary methods of compactification using the anthropic principle, Linde tries to discard entire Universes. Flag in hand!

Linde goes on to ask why mathematics is effective. Question of bottomless depth. And he comes to a stunning conclusion: "... within the framework of the concept of the multiworld, you can imagine all possible universes with all possible laws of physics and mathematics. We can only live in those of them in which mathematics is sufficiently effective."

That is: in fact, the anthropic principle is just a kind of dress-code, a label indicating that the physicist belongs to the mainstream of the modern dominant ideology.

It is not chaos in the nature, it is chaos in your pluralistic theories that cut off from reality, it's the chaos in your heads.

It is characteristic - let us note this - that the anthropic principle was first formulated in the USSR, which for unknown reasons (in view of the consensus) is considered to be socialist. It was during the perestroika period, in 1989, that the international seminar "The Anthropic Principle in the structure of the Scientific Picture of the World: History and Modernity" was held in the USSR.

Fundamentals of the anthropic principle

It is obvious that the anthropic principle is teleological, in the spirit of Socrates, Aristotle, representatives of patristics (philosophy and theology of the "church fathers"), Athenagoras, Tatian, Tertullian, as well as the scholastics: it rains because people need a harvest. I.e., the world is attributed to non-natural, external goals.

It is also obvious that the basis of the anthropic principle is anthropocentrism. This is a philosophically idealistic view, according to which man is the center of the universe and the goal of all events taking place in the world. It emerged in the Renaissance in opposition to theocentrism, although its origins can be found in ancient philosophy. Thus, Protagoras argued that "man is the measure of all things" (see also [4]).

Anthropocentrism, which places man at the center of the universe, rejects both cosmocentrism with the idea of man as a "microcosm" and the supreme creator. Man is autonomous, is not the image and likeness of God, he has neither the original sin nor the seven deadly sins (as Charles de Coster expressed in The "Legend of Til Ulenspiegel").

In the Marxist approach, the contours of anthropocentrism are outlined by P. P. Gaidenko.

"In the XV century, J. Manetti, - Gaidenko points out, - in his treatise On the Dignity and Superiority of man, characterizes man as a "mortal God", "heavenly and divine animal", "more divine than humana living being." In the works of the head of the Academy of Plato in Florence, Marsilino Ficino (1433-1499), in the "Speech on the Dignity of Man" by J. Pico della Mirandola, man appears as a creator of himself, the cult of human creativity arises. "At the same time, the cult of genius, of human exclusivity in general, often turns into extreme individualism and the absolutization of the aesthetic approach to man - up to immoralism... In the era of the Reformation and especially the Counter-Reformation, Renaissance anthropocentrism takes on new forms.

In the 17th and 18th centuries, subjectivism, characteristic of Modern European philosophy, arose – as the requirement to proceed in philosophy and science from the subject, from the "I" (the Cartesian cogito ergo sum as the principle of subjective certainty). "Not just the principle of thinking as such, but the subjectively experienced act of thinking, from which it is impossible to separate the thinker, was laid by R. Descartes in the foundation of the new philosophy. However, in Cartesianism, self-consciousness as the beginning of philosophy has not yet acquired full autonomy: the truth of this principle is guaranteed in Descartes by the existence of God - the source and the basis of the objective significance of all knowledge. The transformation of the subject, the "I", into an autonomous principle occurred in the 18th century thanks to I. Kant ... it is the subject-logical, ethical, aesthetic - that constitutes the empirical world.

At the thought of I. G. Fichte the autonomy of the self-creating, self-generating "I" become the Central base of the philosophical system... In the 19th and 20th centuries, with the deepening of the secularization anthropocentrism takes the form of open rebellion... For Feuerbach's atheistic humanism, the highest thing in philosophy is man, whose essence he sees, however, not in a separate individual, but in a collective, generic being, and therefore justifies altruistic morality. Soon, however, M. Stirner, and then F. Nietzsche's cancel this morality. Stirner ("The One and his property", 1844) proclaims the thesis: "Ego mihi Deus" – "I am my own God", and Nietzsche creates ... the image of a superman - a man-god, selfish and aggressive" [5]. Anthropocentrism was held by Hegel, in the early twentieth century – the founder of the philosophy of anthropology Scheler, in modern times – Kh. Wolf.

In recent history, anthropocentrism has lost its revivalist opposition. The ideas of anthropocentrism were taken up by Teilhard de Chardin and E. Leroy.

Teilhard de Chardin tried to link the dogmas of Catholicism with the theory of evolution, pointing out the shortcomings of Thomism - the dynamics of creation, the sin-fall and redemption, the concern for the salvation of the individual subject, not the collective. Teilhard de Chardin identifies three successive, qualitatively different stages of evolution: "pre-life" (lithosphere), "life" (biosphere) and "human phenomenon" (noosphere).

Evolution, in his opinion, did not end with man as an individual. The next step, in addition to the self-concentration of the noosphere, is to attach it to another thought center, a superintelligent one, the degree of development of which no longer needs a material carrier and belongs entirely to the sphere of the Spirit. Graphically the evolutionary process he depicts as the cone of space-time, which is the multiplicity and chaos, and on top of the highest pole of evolution, the last point of the enterprises in a differentiated unity, "the Omega point", "centre shining in the centre of the system of centers."

Teilhard de Chardin did not bring anything new to anthropocentrism, he repeated the Neoplatonists, Saccas, Plotinus, etc., who believed in the existence of a "transcendent original", preached the doctrine of cosmic hierarchies (The One-the World mind - the World soul), declared that the world ("cosmos») is the "descent of the one" (emanation), they inculcated distrust of matter and material forms as "prisons of the soul", called for the "ascent of the soul to its source" through the recognition of metempsychosis, as well as the practice of theurgy, ecstasy, etc.

The philosopher V. V. Orlov, dissociating himself from Teilhard not Chardin, declared man the highest point of the development of the universe.

The topic of anthropocentrism is developed by Russian social scientists, V. I. Samokhvalova, L. I. A. D. Ursula, V. M. Gusev, V. V. Dezhkin, V. A. Kobylansky, and others. However, it does not make sense to consider these developments, at least for two reasons: 1) in view of the obvious social bias of Russian social scientists, 2) in view of the total reduction of the scientific qualification in Russia. Modern philosophical texts, and not only in Russia, increasingly resemble explanations of leader of the orchestra during the pauses in the "Extraordinary Concert" of Sergei Obraztsov: "The finale is the apotheosis, which ends with the author's frank ultima-credo, expressed subtly and gently by the moncanto pianissimo sussurando of the water-tank instrument»: https://vk.com/video40418573_168334580

For example, Samokhvalova attributes to anthropocentrism the statement of Cicero, "who was greatly influenced by the Roman Stoics:" Everything in this world that people use is created and prepared for them " [6].

But this is a utilitarian, elitist, now – bourgeois, but not an anthropocentric point of view.

Anthropocentrism found its expression in the teachings of V. I. Vernadsky.

Noosphere according to Vernadsky, is the "sphere of reason", the sphere of interaction between society and nature, within which rational human activity becomes the determining factor of development, presumably new, higher stage of evolution of the biosphere, the formation of which is associated with the development of society, that has a profound impact on natural processes.

That is, the noosphere does not exist at the moment, because geological and climatic processes are dominant, independent of the technical level of society, moreover, the pollution of the surrounding atmosphere can hardly be called the highest stage.

In addition, among conditions for the presence of the noosphere Vernadsky called the absence of wars, separation from politics, increasing the well-being of the masses, etc., which is not observed, for example, every year 40 million people die from hunger in the world.

However, Vernadsky put a mystical meaning into his concept. He argued that "there is a great geological, perhaps cosmic force in the biosphere, the planetary action of which is usually not taken into account in the ideas of the cosmos."... This force is the mind of man, his aspiring and organized will as a social being. "The American environmental historian D. R. Wiener calls the doctrine of the noosphere" a utopian and scientifically untenable idea " [7].

Anthropocentrism exalts certain aspects of the development of nature, and this exaltation

1) discards the phenomenon of the diversity of life. The possibility of a variety of life forms in the universe is based on a) the nonlinearity of biological evolution, b) the already available data on the possibility of non-carbon life, c) the already available data on the expansion of the spectrum of life conditions to the extreme .

2) Separates man from the class dynamics of society, the sociological anthropocentrism of Herbert Spencer and Max Weber believes that the mass is the sum of the masses, the properties of society are the sum of the properties of individuals, thus, sociological anthropocentrism ignores the new systemic quality that arises in man only in society, as Marx noted in the thesis about Feuerbach: the individual is a concrete set of social relations.

Modern sociology supposedly solves the dilemma of anthropocentrism and sociocentrism through terminology. Thus, P. Bourdieu argues that the social environment generates a certain habitus - a system of "acquired predispositions" that are used by individuals as initial attitudes that generate specific social practices of individuals. Habitus is declared an incorporated (legal) sociality.

It is obvious that "legal sociality" is an empty, meaningless abstraction, and its use has only one purpose - to obscure a thesis similar in form to Marx's thesis about Feuerbach. On the other hand, the attitudes are separated from the personality, they act mechanically, in addition to the will and consciousness in general.

In different terms, but the same empty abstraction is offered by the structuralist Roland Barthes.

Barth's "writing" is an ideological grid defined in language, which a particular group, class, social institution, etc. places between the individual and reality, forcing him to think in certain categories, to notice and evaluate only those aspects of reality that this grid recognizes as significant. It would be understandable if Barth, along with ideology, added to the "grid" the practical aspect of the life of political parties, the entire spectrum of which the ruling class of the bourgeoisie designed as a protective buffer between themselves and the masses. But Barth also referred to literature, which does not separate, but connects, as "writing". Which is partly true if one means the "creativity" of Alexievich, Ulitskaya, Prilepin, Marinina, Akunin, Rubalskaya, Dontsova, etc., as well as modern cinema.

Accordingly, society, nature, for Barth – is not a material world with its laws, but only a text, a breeding ground for a creature that is not amenable to analysis, or even to any measurement. The relationship between the individual and society, according to Barth, is "the dissolution of the author in the text." That is, the solution of the problem by the death of the author.

This is how sociological postmodernism, represented, for example, by M. Foucault, eliminates the problem of the relationship between the individual and society - with the help of an unusually humanistic idea of "the death of the subject".

"The origins of the attitude to the 'death of the subject' are found in structuralism, which marked the shift of philosophical interest from the atomic to the structural ... the rejection of the pathos of the personal principle in favor of a free, machine, 'schizoid' game of meanings" [8].

In a word, "continuo-transcendental apperception in the hermeneutically expressed archetype of the medieval society of sparrows".

3) This exaltation separates man from the actual evolution of the human species [9].

Alekseyev even writes that humanity can and should be opposed to all other matter [10].

Instead, anthropocentrism offers a fantastic, mystic, non-existent gluing:

1) between man and the planet, man and the cosmos,

2) between the history of mankind and the history of the universe.

Marxism and the Anthropic principle

The anthropic principle states that if the numerical values of many dimensionless (independent of the system of units) fundamental physical parameters, such as the mass ratios of elementary particles, the dimensionless constants of fundamental interactions differed from their observed values by only a small amount, intelligent (rather highly organized) life could not be formed.

As a rule, it is indicated that with the dimension of space R^4 , the motion would be unstable, closed trajectories of planets would be impossible, if the mass of the electron was 3-4 times greater, hydrogen would only exist for a few days, and the constants of the fundamental interactions cannot deviate from their values.

To answer the question "why", modern physicists prefer not to investigate the fact within the framework of physics, but to involve the anthropic principle, which in fact means not anthropocentrism, but theocentrism. For the question "why" is not the answer, the answer is contained in the question "by whom", who varied or knew in advance the value of the world constants.

This statement is false, because there is no talking of intelligent life, but only of life in general.

In addition, the statement does not make sense in two plans: a) mankind does not know life in another form, the level of knowledge is still too small, so one has no definition of either life or intelligent life; b) no research was made about possibility of life when world constants differ for a large quantity, can atom like hydrogen or much different from hydrogen exist, but also as a complex, with much smaller or much greater mass of an electron, rather than the difference of the masses of the neutron and of the proton?

Question: does the Moon exist if the mouse is not looking at it?

Question: did man arise in the course of the evolution of nature, or did he always exist?

Did the laws of quantum mechanics work in the absence of an observer, in the Planck Universe, or in the era of baryogenesis?

It is obvious that if we accept the scientific data of the origin of man, for socially engaged scientists there is only one way out: to recognize God as an observer. It is obvious that the formulation of the anthropic principle is associated with a subjectively idealistic, solipsistic interpretation of quantum mechanics, i.e., with a general world trend.

Moreover, the anthropic principle clearly contradicts the fact that man is in no way able to influence the evolution of the Universe, in addition, living matter is a vanishingly small part of the Universe, moreover, all existing cosmological theories speak of the mandatory death of life in the Universe, implicitly pushing to the idea that one can only hope for God.

Notice how Friedrich Engels formulated the anthropic principle in his book "Dialectics of nature": nature evolves from lower to higher, from simple to complex, chemical form of matter motion is occurring from the physical forms of matter in motion, biological form is occurring form of the chemical form, from biological – social. Thus, in Marxism, life in the universe arises with natural necessity, as regularity.

Similarly, K. Huseykhonov begins the formulation of the anthropic principle: "The essence of the anthropic cosmological principle is that life is an integral part of the universe, a natural consequence of its evolution." But he immediately admits that a subtle adjustment of the world constants was made by someone for the purpose of creating a person.

Engels' formulation does not mean that man is the highest point of development, it does not mean that the Universe is specially adapted for man.

This means that the regularity by which intelligent life arises does not lie in physical laws, but in biological laws; the regularity of the origin of life is not reduced to physical laws, it follows from the laws of chemistry.

If life dies on Earth, Engels argues, it will necessarily arise at another point in the universe. In the translation to the modern level of knowledge – in new Universes in M-theory or in nascent Universes in the theory of the Starobinsky - Linde multiverse.

Two final points.

1) In reality, the anthropic principle is not anthropic, if we discard the political component, it is only an attempt to use in physical models the fact that the laws and the content of the universe are such that chemical elements arise as a result and DNA can be constructed from them.

But this is only the first step. Are there such laws of chemistry to generate the appearance of DNA? Are there any laws of the universe that make it possible to survive in cosmic cataclysms? Are there any laws of biology that would make intelligent life possible?

That is: what is the natural-scientific content of the laws of dialectical development?

So far, these issues remain speculative.

Meanwhile, "in the future, - Marx argued, - the science of human will include natural science in the same way, as natural science is the science of human, it will be one science - human science."

2) One highlights three types of movement: a cycle (noted in the Bible, in the book of Ecclesiastes, "the wind returns to its circles", "nothing is new under the moon"), transformations, i.e. irreversible qualitative changes that have no direction, and Hegelian development from the lowest to the highest.

The universality of the principle of development of matter as the ascent from lower to higher, from simple to complex is in conflict with two paradigms: the tendency of the system to a minimum of energy and law of conservation of mass-energy. Within these paradigms, any cosmological model will predict the death of life in the universe. The principle of dominant development as an ascent from the lowest to the highest is not laid down in physics today.

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Literature

1. Subbotin M. F. Galileo and cosmology // Galileo and modernity. - M.: Knowledge, 1964. - Ser. 9: Physics, mathematics, astronomy. P. 32.
2. Schaeffer W-M., The End of human exclusivity, 2007.
3. Grib A. A. A basic understanding of modern cosmology. M.: Fizmatlit, 2008.
4. Big Soviet encyclopedia, 1970, vol. 2; Gaidenko p. P. Anthropocentrism. The Great Russian Encyclopedia. 2005. pp. 91-92; Anthropocentrism // Popular Encyclopedia illustrated dictionary. Europedia / Edited by V. V. Ovchinnikov, Moscow: Olma-Press, 2003, p. 61.
5. Gaidenko P. P. History of New European philosophy in its connection with science. M., 2000. pp. 13-19. Cit. by Galinskaya I. L. P. Gaidenko. From the theocentrism of the Middle Ages to the anthropocentrism of the Renaissance. Bulletin of Cultural Studies. 2002. №3 (23). P. 13-15. Report.
6. Vershkov A.V. Anthropocentrism and modernity // Actual problems of the humanities and natural sciences. 2014. №5-1. P. 309-315.
7. The Cult of Vernadsky and the Noosphere / Viner Douglas R. // V. I. Vernadsky: pro et contra. SPb., 2000. pp. 645-646.
8. Serbul A. A. The death of the subject: philosophical and cultural analysis of the problem of the subject in postmodern discourse. Philosophy of science. 2011. №2. P. 51-56.
9. Katta A. Natural history of man. M., 1861.
10. Alekseev V. P. Anthropological aspects of the problem of the origin and formation of human society // Problems of ethnography and anthropology in the light of the scientific heritage of F. Engels, M.: Nauka, 1972. P. 73-75.