

Thoughts about the matter and time of nature

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free explorer

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This article deals with the question of the matter and time of nature. This consideration is based on the dialectical-materialistic conception of nature.

The author has his own understanding and his own approach, his own view on such categories as matter, time, space, the Universe. The author adheres to a dialectical-materialistic view of nature. It is about these things, about these concepts and about your view of nature that the story will go on in this article. Basically, there will be a narrative, a conversation with the reader about the matter and time of nature.

“Nature exists absolutely and without regard to anything or anyone”.

It is a fact. This is an objective reality. This is an absolutely correct, true and scientific position, statement, judgment, proposition.

“To exist absolutely, to exist without regard to anything or anyone” is the most important, fundamental property of nature, an attribute of nature.

Nature cannot “not exist”! Nature exists!

No real experiment can refute the existence of nature.

The proposition “Nature exists absolutely” exposes the lies and anti-science of Popper's criterion. This criterion is considered by the party of modern physicists to be the criterion of the scientific character of a theory. Modern physicists believe in this criterion as in God.

Everything that exists in the material world around us and we ourselves exist in nature.

The author considers both matter and time to be the two most important essences of nature, and both of these essences are an objective reality. They exist really and independently of the consciousness of man and outside his consciousness. They exist in nature.

The conversation in this article will also be about the time of nature and the fixed moments of time of nature. And the author considers the concept of “a fixed moment of time of nature” to be a fundamental concept of natural science. The author will share his thoughts and ideas about how these two fundamental essences of nature, matter and time of nature, are interconnected.

Neither time nor matter is any material body, formation, object, subject, thing. These are the essences of nature. These are really existing, objective essences of nature. These are categories of a higher order than the category of the material body. These essences of nature are not fixed by any sense organs. But there is a principle “nature is knowable”. So our knowledge of these two most important essences of nature is closely connected with scientific and theoretical knowledge, which includes human thinking, the process of thinking, as a tool, as the most important and necessary moment of knowledge. But it is worth understanding and remembering that the process of thinking itself includes such moments as abstraction, generalization, analysis, synthesis, conclusions, the creation of concepts and the work of our consciousness with them, the creation of

theories. All this, of course, is a separate big topic, a problem, a big question, but it remains outside our present narrative, reasoning.

The author has his own understanding and his own approach, his own view on such categories as matter, time, space, the Universe. This article will mainly discuss matter and time. The author adheres to a dialectical-materialistic view of nature. The author stands on the platform of the only true and scientific philosophy of dialectical materialism. The author uses in his studies of nature and in his various arguments the scientific dialectical-materialistic method of cognition. Matter is the fundamental principle, the primordial essence, the origin and the first cause of everything and everything in nature. Matter is the unique and only substance of nature. The author believes that the specific matter of nature is represented by the content of elementary particles (proton, neutron, electron, etc.). As is known, the existence of elementary particles, according to the physics of elementary particles, is a well-known fact. Elementary particles exist as discrete, local (not infinite), minimal material formations, bodies, particles. The fact of the existence of material elementary particles in nature is at the same time a direct proof of the existence of “pure”, concrete matter of nature as the content of elementary particles.

This is by no means esoteric. This is a well-founded, completely obvious, simple, clear, unambiguous, consistent, unconditionally acceptable and absolutely sufficient proof of the existence of the matter of nature. Each elementary particle contains the same amount of matter – a quantum of matter. This is the minimum amount of matter in nature. A quantum of matter is not a static matter, not a material firmament. A quantum of matter is material flesh, which is in constant, continuous, strictly periodic, harmonic, internal motion. This movement (oscillation) should be called the process of matter quantum pulsation. With this pulsation, the quantum of matter either decreases (compresses) to its

minimum size (diameter), then increases (expands) to its maximum size (diameter).

The minimum state of a pulsating quantum of matter is called a grain of matter. The maximum state of a pulsating quantum of matter is a specific elementary particle. It is quite clear that each step (cycle, act) of this process of quantum of matter pulsation takes place in the same minimal time in nature (duration of time). This is a quantum of time. And it's not zero. But within each quantum of time, within one quantum of time, the pulsating quantum of matter in each of its states stays only one moment of time. It is quite clear that these are all different states of a pulsating quantum of matter. The duration of this moment of time (and any, each such moment of time) is equal to zero. In each single step (cycle, act) of quantum of matter pulsation there is an initial moment. The initial, start moment (point) of time of each quantum of time is, at the same time, the end moment (point) of time for the previous quantum of time. It is quite clear that the initial moment of the time quantum on the arrow of time cannot be taken arbitrarily, according to our desire or will, according to the desire or will of any person. This initial moment of the quantum of time must strictly and unambiguously correspond to a well-defined state of the quantum of matter. And this is an objective reality. And this is (1) the state of the beginning of the tact (cycle, act) of the pulsation of the quantum of matter. This is a well-defined, isolated, fixed state of a quantum of matter. And each specific and each fixed moment of time must also correspond to a quite definite state of a pulsating quantum of matter. This is (2) the state of the end of the tact (cycle, act) of the pulsation of the quantum of matter. This will also be a well-defined, isolated, fixed state of a pulsating quantum of matter. And this (2) state of the pulsating quantum of matter will also simultaneously be (1) the state of the beginning of a new, next tact (cycle, act) of the pulsation of the quantum of matter. In essence, both of these states of quantum of matter (initial, start (1) and final, end (2)) will be identical and indistinguishable. This will be the state of the quantum of matter, preceding the beginning of the next step (cycle, act) of the process of pulsation of the quantum of matter.

But, on the other hand, these same states characterize both the initial, start state and the final, end, completed state, and these, of course, will be fundamentally different states. And between them lies the tact (cycle, act) of the process of pulsation of the quantum of matter. We can also consider, call one (each) single step (cycle, act) of the process of pulsation of quantum of matter a quantum of action. This is completely legal and acceptable. The quantum of action is the minimum act (step) of the completed, perfect, fulfilled internal movement of the matter, of the quantum of matter. But for the execution, implementation of each single individual tact, step (act cycle) of pulsation (quantum of action), time (time duration) is required, and this time (time duration) is equal to the quantum of time. Therefore, we can also say that between the initial, start and final, end states of the quantum of matter is the quantum of time. We can also legally consider and assert that the initial and final states of the quantum of matter are interconnected by the quantum of action. The initial, start and final, end states of a quantum of matter, being in all other respects identical and equal, differ only in fixed moments of time. The initial, start and final, end states of quantum of matter are fixed states. This is a single fixed state of a pulsating quantum of matter, regardless of time. Fixed states of quantum of matter on the arrow of time correspond to fixed moments of time of nature. These are different fixed moments of the nature time. All these fixed moments of time of nature form their own sequence of moments of time on the arrow of time.

These are fixed moments of the time, arranged in a sequence so that between each two adjacent fixed points of time of this sequence there will be an interval, a time interval equal to one quantum of time. And all these moments of time, belonging to our sequence of moments of time, will be fixed moments of time of nature. These will be moments of time set by nature, namely by nature. These will be purely natural moments of time, and not moments of time arbitrarily specified by man. This is a very important note. This must be understood very well. Thus we arrive at the fundamental concept of “a sequence of fixed moments of time of nature on the arrow of time”.

The concept of a sequence of fixed moments of time of nature is the most important fundamental concept in all of natural science.

This is essentially the process of transforming the continuous time of nature, as the main, fundamental essence of nature, into a sequence of fixed discrete moments of time of nature. Or, in another way, it can be said like this: it is the process of representing the continuous time of nature as a sequence of quanta of time of nature. And sequence is the other side of discreteness. Continuous time of nature itself divides into a discrete sequence through mediation, with the help of quanta of time.

Time is the continuous essence of nature. The matter of nature is represented, in general, by discrete, local quanta of matter. A quantum of matter is material flesh pulsing in the rhythm of nature. The pulsation of quantum of matter is the internal movement of matter. Movement is a continuous process. But this process manifests itself in nature in the form of discrete fixed states of quantum of matter. And these discrete fixed states of a pulsating quantum of matter manifest themselves in nature at the corresponding, certain, discrete (~~fixed~~) moments in time of nature. These corresponding, definite, discrete (~~fixed~~) moments of time of nature are the moments of the beginning of quanta of time of nature. These will be fixed discrete moments of time of nature.

All quanta of the matter of nature pulsate synchronously in the same rhythm and pace throughout the Universe.

All of the above allows us to draw one more important fundamental conclusion. We have perfectly and distinctly seen on the example of a pulsating quantum of matter that there is a close connection between (1) quantum of matter, (2) quantum of action and (3) quantum of time. This

organic inseparable connection takes place in all nature, in the entire Universe. Matter is the first fundamental essence of nature, it is the unique and only substance of nature. Motion (quantum of pulsation, for example) is an attribute, the most important property of all matter. There is no matter in nature without movement, and there is no movement separately, apart from matter. But time, as the second fundamental essence of nature, is a form of existence of moving matter. These forms are, for example, concrete, discrete fixed states of a pulsating quantum of matter. Each discrete moment of time (also within the quantum of time) corresponds to its own discrete state of the pulsating quantum of matter.

But at each discrete fixed (!) moment of time of nature, a pulsating quantum of matter appears in the form (in a state!) a grain of matter or (this is an exclusive “or”) an elementary particle. The state of a “grain of matter” is not available to our direct observations and is not available to our devices for observing and “fixing” the fact. But the state of the “elementary particle” is already available for study using various means. Today we know a lot about elementary particles from numerous experiments carried out by experimental physicists to discover the facts of the existence of elementary particles and study the properties of the elementary particles themselves. According to the author, the fixed state “elementary particle” for a pulsating quantum of matter correlates and **corresponds to a discrete fixed** moment of time of nature – the beginning (= end) of a single tact (cycle, act) of the pulsation of a quantum of matter or, which is the same, the end, completion of a internal quantum of action. The state of a pulsating quantum of matter “grain of matter” **does not correspond to any fixed** moment of time of nature. But this state is necessarily achieved by a pulsating quantum of matter inside the quantum of time, quite possibly in its middle. This is the middle of the time quantum. This is a well-defined moment within a time quantum. But this is not a fixed moment of time in nature.

There is only one fixed moment for a time quantum, this is the beginning (= end) of the time quantum. In this case, the end of one quantum of time corresponds to the beginning of another (immediately

following!) quantum of time. And this beginning (= end) of the quantum of time corresponds, according to the author's assumption, to the state “elementary particle” of the pulsating quantum of matter. This is a fixed state in the process of pulsation of quantum of matter. And it is precisely this fixed state (the state of “elementary particle”) of a pulsating quantum of matter that is unique and accessible to our observation and study with the help of our instruments.

And the conclusion after all these reasoning suggests itself such that these two fundamental essences of nature “matter” and “time” with the direct mediation of the quantum of action (quantum of pulsation) are connected together by an invisible, organically inseparable connection until they are identified: “**time = matter**”. We come to the conclusion that two absolutely different essences of nature are identical to each other. This is the dialectical-materialistic unity of difference and identity. This is the law of nature. This law can be represented, written in symbolic form as “**time = matter**”. It's an identity, but it's not just a commonplace, well-known, mathematical identity. This is a dialectical-materialistic identity, which contains in itself the moment of difference. These are different natural essences entities “time” and “matter”. But at the same time, these are identical essences entities, this is the dual essence of nature “**matter + time**” (“**matter & time**”). And if at the same time we take into account the movement of matter, the quantum of internal action, then we can talk about the triune inseparable essence of nature “**matter + movement + time**” (“**matter & movement & time**”). And it will be right and true. This will be correct, true, adequate, our true understanding of nature and its essences, the relationship of its essences to each other.

All these arguments of the author are the practical application of the scientific dialectical-materialistic method of cognition of nature. We have come to a simple, clear, not always obvious, but unambiguous solution to the problem of the structure of nature at the micro level, on the Planck`s

scale of being. This is the problem of matter and time of nature. We have reached a true understanding of the structure of nature in this matter (about matter and time). This, in particular, is the strength and power of this method of cognition of nature – the scientific dialectical-materialistic method of cognition. This method was originally discovered in the middle of the 19th century by K. Marx and was practically applied in his fundamental work Capital.

No religious faith, no mystical or esoteric faith, no faith of any other nature here in these dialectical-materialist arguments about nature and its essences cited above, we absolutely did not need them, they were absolutely not used as completely unnecessary. All these beliefs are based on a big lie.

All religious teachings in the world, all schools, trends and directions of bourgeois-idealistic philosophy, all mystical and esoteric theories, all mythical fairy tales are based on lies, great lies. But from the perspective of the original lies (and this is anti-materialism) and anti-scientific theories one cannot know the real structure and evolution of nature, the Universe, one cannot know the truth about nature.

Behind all these faiths, beliefs, demands of faith, coercion to believe, intimidation by unbelief, there are powerful forces of society that are extremely interested in the massive imposition of lies. All this and other lies, especially religious lies and lies of bourgeois-idealist philosophy (BIP), lies of bourgeois ideology in the most favored nation regime and in the form of moral and psychological terror against people are distributed by numerous bourgeois media according to the “24/7” broadcast schedule. The main goal of distributors, propagandists (propagandons) of lies, false doctrines, teachings, theories is the moral and psychological enslavement of large masses of people, ordinary people. The “Party of Ram (Sheep, Zombie, Bidlo)”, formed under the influence of this propaganda and agitation, is a material force and seems to be the main support for the

modern forces of reaction and obscurantism in their crazy plans to rule over the world, over society, over zombified people.

The main element of all these existing and possible varieties, variants of lies is their militant, spiteful anti-materialism, anti-materialistic orientation, denial of the matter of nature as a unique and only substance of nature.

But since nature is fundamentally material and dialectical, religion, idealism lead to the denial of nature as such, and its replacement with God's creation or with the realization of the absolute idea or with an essentially esoteric nature.

Today, the aggressive, militantly anti-materialistic, fundamentally false, deeply anti-scientific Bourgeois-Idealist Philosophy (BIP) is the state philosophy of the bourgeois RF. Her lie has the status of a state lie. This philosophy is taught today in all Russian universities. And its idealistic, anti-materialistic lies fool the minds of the young generation of Russians.

The truth about nature, the Universe, about their structure and evolution can be learned only from the standpoint of the only true and scientific philosophy of dialectical materialism. Here it is the truth of life. And this truth in life is true about nature in this article and in the book of the author "Theory of Nature".

The materiality of nature means that the basis of all objects, things, bodies, objects of nature is matter. The materiality of nature is a direct consequence of the fact that all material bodies ultimately consist of elementary particles (EP), and elementary particles are based on "pure", concrete matter of nature as the content of elementary particles.

The dialectic nature of nature means, by and large, that all the matter of nature is in constant motion (movement, renewal, change, evolution, development). This can be seen on the example of a quantum of matter,

which is the material flesh pulsating in the rhythm of nature, firstly. And secondly, the quantum of matter pulsating in the rhythm of nature underlies all elementary particles (EP).

As for the Universe, the author considers the Universe to be the largest material object of nature.

But as for space, the author is of the opinion that space, as such, as some kind of material natural flesh, as another essence of nature, does not exist in nature itself.

The assumption of the existence of the space of nature imposes such costs, such strict demands on nature itself, that these costs are beyond the strength of nature itself and the requirements are not feasible by nature itself. The assumption of the existence of space leads to the requirement of the infinity of the Universe, to the infinity of the matter of nature. These are obviously impossible requirements. Nature is simple and economical – that is the principle of nature. Another remark against the space of nature is that no one can point to the signs of space, by which one can firmly establish the existence, the existence of space in nature. No one in the entire centuries-old history of mankind has ever been able to provide a direct, simple, clear, unambiguous, non-contradictory real proof of the existence of the space of nature. A similar remark applies to the ether of nature and to God (the Supreme). If nature is the receptacle of everything in the material world around us, then why duplicate this function with space. This is unreasonable and uneconomical. And if space really exists, then what place does it occupy among nature itself, the Universe and vacuum?! The supporters and fans of the existing space of nature also have no answer to this question. So the dialectical-materialistic method of cognizing nature, as well as dialectical-materialistic and epistemological, strictly logical reasoning leads the author of this article to the only correct and true conclusion that the spaces of nature, as such, as the third essence of nature in itself nature simply does not exist. Just imagine just yourself,

dear readers, what a “snowball” of insoluble problems and tasks to this very (prohibition of the existence of the space of nature) will be removed from the mother of nature! After all, nature is simple and economical.

As for vacuum, the author of this article is of the opinion that vacuum is matter`s dust in some form (grains, particles) and emptiness. The author has an understanding that grains of matter can act as material dust.

Thus, space does not exist in nature, and it cannot be the essence of nature.

The universe and vacuum are also not essences of nature.

Nature has only two fundamental essences – it is matter and time. They are inseparable unity with each other. They oppose each other. But they are identical to each other “**time = matter**”. But this is a dialectical-materialistic identity that does not exclude the confrontation and opposite of these two entities of nature.

Even more information on the problems of nature and the Universe can be found in the author's book “Theory of Nature” (TP).

TP is a dialectical-materialist revolution in physics and cosmogony (cosmology) and in all natural sciences.

Referenses

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