

ЕСТЕСТВЕННОНАУЧНАЯ КАРТИНА МИРА

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ON THE WAY FROM METAPHYSICS OF TIME TO ATEMPORAL METAPHYSICS: EXPLORING SOME DIFFICULTIES OF ONTOLOGY

Аннотация: *The explication and the analysis of some basic difficulties which realization of the project of «atemporal physics and metaphysics» in modern philosophy and a science faces is undertaken. It is shown, that key idea of the given project is attempt of representation of the objective reality (or so-called «the ultimate reality») as reality that is timeless at its fundamental level. The question on the ontological status of concepts of «time» and «the ultimate reality» from the point of view of the ontology of sciences is analyzed. Conclusion that concepts of «time», from one hand, and «the ultimate reality», from other hand, when latter one is considered as a synonym of the objective reality, are ontologically incompatible, is supposed. Ontological resources of the interdisciplinary approach to the problem of time in a context of the question of «the ultimate reality» are explored. Some ontological criteria for the objectification of time in the ontology of science and metaphysics are formulated. Heuristic potential of the thesis of «Realism», as the fundamental metaphysical premise of a science, for the decision of a question on the nature of «the ultimate reality» and its temporal features is shown. Some difficulties connected with terminological aspect of a problem of elaborating of «atemporal metaphysics are analyzed.*

Ключевые слова: *ultimate reality, eternity, time, philosophy of science, time: interdisciplinary researches, metaphysics of time, timelessness, atemporal metaphysics, ontology of science, objective reality.*

The issue of the nature of the objective (or ultimate) reality and its relation to time is one of the important themes of modern physics and philosophy of science, especially during last two decades. A number of researchers suppose that ultimate reality is timeless or atemporal. Nevertheless, the given terms, «timeless» and «atemporal», are not usual and standard enough for physics and philosophy of science. What do those researchers mean? Let me consider three views. One view is suggested by V. Stenger. In his book «Timeless Reality» he explains that he means that «quantum events proceed equally well in either time direction, that is, they appear to be «tenseless», while time changes in only one direction¹. A second view belongs to J. Barbour. According to his project called «the end of time», the ultimate arena of the universe is not in time and theory of time, impression of time, but not the time itself, emerge from something essentially

timelessness². Time is merely unreal from this point of view. A third point of view has been proposed by H. Price. Accordingly, «we are creatures in time, and this has a very great effect on how we think about time the temporal aspect of reality... and it is very difficult to distinguish what is genuinely an aspect of reality from what is a kind of appearance, or artifact, of the particular perspective from which we regard reality»³ and so to clarify what and how much in the properties of time and time asymmetry of the reality is objective and what, in contrary, is anthropocentric and closely connected with our own asymmetry, researchers «need to familiarize ourselves with an atemporal perspective»⁴, so called «the view from nowhen»⁵. Exploring this issue, Price argues that «causation and physical dependence are importantly anthropocentric notions, whose temporal asymmetry

¹ Stenger V.J. Timeless Reality: Symmetry, Simplicity, and Multiple Universes. Prometheus Books. N.Y., 2000. P. 13.

² Barbour J. The End of Time: The Next Revolution in Physics. Oxford University Press. N.Y., 2001. P. 16–17.

³ Price H. Time's Arrow and Archimedes» Point. N.Y., 1996. P. 4.

⁴ Ibid. P. 261.

⁵ Ibid. P. 4.

reflects the contingencies of our own temporal stance»¹. This means that genuine reality is atemporal one and then one of the directions for further work in philosophy of time is to elaborate metaphysics of reality that will be genuinely atemporal metaphysics. «But what would a properly atemporal metaphysics be like?» he asks².

Is the atemporal metaphysics possible? This project, from my view, runs to some difficulties, though I think that the atemporal level of reality really exists. Let me begin with a consideration of the problem of the ontological status both of *the concepts of time and the concept of ultimate reality* (i.e. the problem of the relation of these concepts to the objective reality itself) in the philosophy of science.

As for *the concepts of time*, it, undoubtedly, belongs to a number of key concepts of the Science. Nevertheless, one of the main difficulties revealing in the study of time, as it's well known, is due to a special ontological status of this concept in the Science and Humanities. The time is such an object that belongs to the subject field not only a single discipline but is studied by various sciences. This means that, on the one hand, the concept of time can have a different content, but, on the other hand, points to a special (so-called «beyond disciplinary») status of the time, which obviously requires adequate means to be expressed. Furthermore, time is not only an object of science. Time appears among the fundamental concepts of philosophy. It turns out to be so fundamental that the answer to the question «what is the time,» admits a variety of responses, down to the question of «whether there is time itself» (that is, whether it is real or not, whether it actually belongs to a number of categories, that describe things as they are, or, on the contrary, the properties of what is usually called the time, due to the nature of the learning subject). Taking into account this peculiarity of the concept of time one should arise next questions: What is the relation of the only objective reality, from the one hand, and particular and different disciplinary contents of the concept of time, from the other hand? What ontology of time is real and proper?

As for *the concept of ultimate reality*, unlike the concept of time, the main question here is even deeper: does a concept of the ultimate reality belong to the ontology of science at all? Such a statement of the question, in my opinion, is the logical consequence of the trend which has revealed the development of epistemology during the previous three centuries. This trend is generally known as anti-Realism, has more than seriously shaken the classical setting of Realism in

philosophy, which was based on belief in the existence of the mind-independent world and its knowability, the latter understood as compliance of our concepts of the world to the world itself. What we call reality in anti-Realism as we know, however, is seen only as a structure and as a result of the conceptual activity of the subject. This leads to an important consequence, the essence of which is as follows: the questions like: what is the objective world by itself? Does it actually exists and if it does, how does it correlate to our concept of it? Strictly speaking, it is impossible to obtain unambiguous and unconditional answers to these questions. In turn, this means that any statement concerning the nature and structure of objective reality requires prior clarification of the epistemological presuppositions (Realism or anti-Realism), which will guide the researcher. The choice between Realism and anti-Realism (in my opinion, for Realism) plays a significant role. One of the consequences of the debates between Realism and anti-Realism, as we know, is the boundaries extension of the term «ontology», which, as it turns out, can be used in a double sense. The traditional realistic version of metaphysics sees it as objective reality as it is, and the notion of ontology represents a set of fundamental entities that make up the «structure» of this reality, while in the philosophy of science, reality, one way or another, is defined by scientific theories and the notion of ontology of a scientific theory is used to refer to those entities (to which varies time constructions in the natural sciences can be referred), the existence of which is committed to the apparatus of the theory itself. Taking this notion of ontology into account, as it's well known, has a very important consequences. Accordingly, the question on how the reality of the scientific theory and an objective reality correspond to each other, has no the unequivocal decision. The reality of a scientific theory is not the same reality that the objective reality is; and time either is real or unreal not the same mode among the entities of physics and metaphysics. Besides, the concept of the ultimate reality, if this concept is identical with the concept of the objective reality, unlike the concept of time, is, obviously, not among those entities the existence of which is committed to the apparatus of the theory itself. This concept only appears as metaphysical background of the Science. This means, in my view, that the ultimate reality, is, strictly speaking, neither genuinely temporal nor atemporal or timeless at all, because of the concept of time, from one hand, and the concept of the ultimate reality, from other hand, are not ontological compatible. Atemporal physics is really possible, but the elaboration of coherent atemporal metaphysic requires the further exploring the

¹ Ibid. P. 266.

² Ibid.

problem. So it appears a very important question what kind of reality do Stenger, Barbour and Price mean. For Stenger and Barbour, reality is obviously of the reality of a scientific theory. And so I'm not agree to assume that these two researchers have succeeded enough in the proof of that the ultimate reality is timeless. Meanwhile Price means not only the reality of a scientific theory and the project of atemporal physics. He also means the objective reality and its atemporal metaphysic, but the question what will this atemporal metaphysic be like is left open. At the same time Price's project of atemporal metaphysics appears closely connected with his arguments in favor of anthropocentric nature of time asymmetry. But to assume the way of the idea of atemporal metaphysics proposed by Price means to accept the denying of the reality of time, the point of view that is controversial enough¹.

Therefore, in my view, one of the main questions for the philosophy of science here, whether scientific construction of time have any relation to the objective reality or the atemporal metaphysics is the exact subject of metaphysics. To help find the proper decision of the problem one should consider the metaphysical background of the concept of the time which is connected with it so-called «beyond disciplinary» status. Let me propose my consideration of the problem below.

Although it is clear that the final choice between Realism and anti-Realism in the sense of a strictly logical argument here is hardly possible, it can be assumed that such a choice can be made as a solution to the question: which of the two epistemological systems would be more relevant with respect to the so-called «beyond disciplinary» status of time. Therefore, in my opinion, one of the main problems in the study of time is to find the basic methodological approaches for time, which would adequately express its «beyond disciplinary» status in terms of the ontology. Suppose this status has some objective content. Nevertheless, from the point of view on the notion of ontology of a scientific theory as one to refer to those entities (to which varies time constructions in the natural sciences can be referred), the existence of which is committed to the apparatus of the theory itself. This means that the ontology of time in varies scientific theories will, strictly speaking, be different, which obviously does not agree with the so-called «beyond-disciplinary» status of time, if it is meant that in this status lies some objective content. And what about the ontological status of time then?! Whether it

real in first, metaphysical sense, that is, time is among the set of fundamental entities of the objective reality? Or time only real in second, limited sense, maybe even instrumentalistic, anti-Realistic sense? We can formulate these difficulties as follows:

(a) The different scientific constructions of time, strictly speaking, are not ontological correlative, so as there is not the only, common, universal reality different constructions of time refer to, and, therefore, there are different ontologies in different constructions of time.

(b) We can't even affirm that these scientific constructions of time refer to the real maid-independently existing time. Therefore both scientific and metaphysical constructions of time are not ontological correlative, too.

The problem, therefore, is that the so-called «beyond-disciplinary» status of time, being accepted as having objective content, from the ontological point of view requires an appropriate methodological approach to solve these two difficulties.

I think we can formulate them as follows:

(a) The different scientific constructions of time are ontological correlative if, and only if, there is the only, common, universal reality different constructions of time refer to.

(b) The metaphysical constructions of time refer to objective reality as it is if, and only if, there is maid-independently existing reality.

(c) Such an entity as *the ultimate reality* itself is only committed to the ontology of Realism, not to the ontology of anti-Realism.

Taking into consideration the circumstances, mentioned above, it can be concluded that the an appropriate methodological approach to the study of time as the «beyond-disciplinary» subject requires, first of all, the development of an appropriate approach to the ontology of time, which in turn raises the question of whether there exist such methodological principles that could serve as the basis for the creation of a unified ontology of time which is relevant for its interpretation both: in metaphysics and the philosophy of science?

As such, apparently, can be recognized an interdisciplinary approach, which is now widely spread, despite a variety of opinions in understanding the content of the phenomenon of interdisciplinarity. However, the implementation of this approach requires careful design of appropriate methodology and adequate criteria of interdisciplinarity for such an object as time. In my opinion, such a criterion is not yet fully developed. Rather, one can say that an essential feature of modern interdisciplinary research of time is a kind of natural philosophy Realism, which is characterized by the lack of distinction between the mentioned above

¹ Healey R. Can Physics Coherently Deny the Reality of Time? // Time, Reality & Experience / edited by Craig Callender. N.Y., 2002. P. 293–316.

understanding of the reality and types of ontologies used to describe it and consequently, in varying degrees, the identification of scientific theory and the reality of the objective reality. In fact, it is clear that the issue of their correlation cannot be solved explicitly, and, therefore, from a methodological point of view, in any case, it will be incorrect to exaggerate the role of science in understanding of time (which is typical of natural philosophy Realism) to reduce the role of the metaphysical research in this area. The most famous example of this is the rather widespread use of the conclusions of the theory of relativity as an argument in favor of the B-theory of time. Nevertheless, the ontologies of time in metaphysics and philosophy of science are different, so the studies of time in metaphysics, on the one hand, and the study of time in the natural sciences, on the other hand, strictly speaking, should be regarded as independent fields of knowledge.

As for my own view, a positive answer can be given to the question about appropriate methodological approach, taking into account the basic epistemological foundation of science itself, which in the twentieth century was repeatedly pointed out by many outstanding scientists. This foundation, for example, according to Einstein, is «the belief in the external world independent from the percipient subject»¹. This specific of science is essential, if you compare it with the philosophy in terms of the nature of the ultimate questions of metaphysics and epistemology. For philosophy the existence of an external world is not an entity, but, at least logically possible subject of debate. However, taking into consideration the identified epistemological premise of science itself as a «belief in the reality of the world,» the question of reality for the philosophy of science can be pointed out not only in the limited (in fact, the anti-Realistic) epistemological context, that is about the reality committed by the ontology of scientific theory as a whole, the reality as the construction, but also in a wider (in fact, strictly Realistic), metaphysical and even substantival context, that is, as a question about what this «ultimate reality» is and what is the world like in its objective nature. The issue of the nature of the «ultimate reality», in any case, is essentially an interdisciplinary issue, requiring and permitting some universalization of the conceptual apparatus of both: philosophy and science. Consistent and correlative interdisciplinary ontology of time is then a part of the study of ontology of

the ultimate reality which is the subject both of science and metaphysics and even theology.

What consequences can be proposed? One of them is time is real not only as a part of the reality of a scientific theory but as one of the properties of the ultimate reality. In turn, this means the possibility of raising such question as: «What should the ultimate reality be, for time could become one of its objective properties»? Besides, the question of atemporal existence we explore really become of great importance again. «Is time fundamental, or is it a reveal of a deeper, atemporal reality»? And: «If time comes from this atemporal reality, then what is this reality like, and how does it relate to time»?

But now we face with some other difficulties. One of them is the ontology of the timeless or atemporal level of reality needs the proper conceptual apparatus for it. But terms «timeless» and «atemporal» have rather different content in philosophy, which depends of content of term «time». Thus, for example, according to Stenger, to be «timeless» means «proceed equally well in either time direction», while, according to R. Sorabji, to be «timeless» means to exist «but not at any time, neither at any point, nor over any period of time»². Besides, some philosophers think that B-relations are essentially temporal, other philosophers don't accept it³. But even B-series are genuinely atemporal it doesn't mean that defenders of that point really reject that they have duration because ontology of B-relations (i.e. relations earlier than and later than among events), independently either they are temporal relations or not, requires not less, than two members (events) of them.

Other difficulty is these terms can imply other ambiguous term «eternity». But we should take into account the fact that the tradition of using the term «eternity» in Western intellectual history mainly dates back to Augustine and Boethius, and implies, strictly speaking, two of its main values: everlasting and timelessness and both meanings have been principally connected with discussion of God. This, of course, from one hand, apparently prevents the use of the term «eternity» in the context of search of suitable guidelines to express the multiple nature of reality, in the concept of which the idea of atemporal level of reality turned out deamnded. The productive usage of the meanings of the term «eternity» to denote other atemporal levels of reality, seems possible only when referring to

¹ Einstein A. Maxwell's Influence on the Development of the Conception of Physical Reality / James Clerk Maxwell: A Commemoration Volume. Cambridge University Press, 1931. P. 66.

² Sorabji R. Time, creation and the continuum: theories in antique and the early middle ages. Ithaca (N.Y.), 1983. P. 99.

³ Craig W. L. Time and eternity: Exploring God's Relationship to Time. Crossway, Wheaton, Illinois, 2001. P. 194–196.

other philosophical traditions and thorough analysis of all the possible uses of the concept of eternity and the way it is presented, that have been developed by them. One could speak about metaphysics of the Late Neoplatonism or the Christian Middle Ages (especially Greek Patristics) depending on what kind of a way of reality understanding (as created being, or as the eternal uncreated being) the researcher prefers, since they are distinguished by richer diversity of meanings of the

word «eternity» in terms of its usage to refer to various ontological entities. From other hand, some Christian philosophers and theologians could reject the idea that something is genuinely eternal at all, because there is nothing uncreated except the God. From this point of view, everything having the beginning of the existence is under the time¹. But is there anything genuinely atemporal or timelessness then?!

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