

SPECIFIES OF THE PARADIGM OF TECHNICAL CONCEPTION IN EUROPE IN THE MODERN TIME AND THEIR INTERPRETATION IN UKRAINIAN PHILOSOPHY OF TECHNIQUE

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In the article the ideas of the Modern Time prominent representatives concerning the essence of technical activity and its perspectives in the context of Ukrainian philosophers' studies were analysed. On the ground of philosophical analysis of the works of prominent philosophers of the Modern Age concerning technique we can come to the conclusion about their perception of technique as one naturally connected to progressive development of society. Technical innovations has become the main engine of civilization technical progress. Ukrainian modern researchers gave certain attention to the Modern Time period. It was revealed that the conceptions of the philosophers of that period concerning science, technique and their interconnection were and are the preoccupation of the representatives of modern Ukrainian philosophy of technique.

Keywords: technique, methodology, philosophy of technique, technical progress, Modern Time.

Problem statement. In the Modern Time scientific and technical achievements led to transformations in the Europeans lives and provoked the significant changes in the society consciousness.

Examination of the works of the Modern Time prominent representatives, who created the philosophical paradigm of this period and corresponding ways of thinking, is important although it is an insufficiently studied area of the modern Ukrainian philosophy of technique. Besides our literature lacks specific works devoted to the phenomena of technique in Europe in Modern time. The named circumstances are enough to identify the **timeliness of this article**.

The objectives of the article – analysis of the ideas of the Modern Time prominent representatives concerning the essence of technical activity and its perspectives in the context of Ukrainian philosophers' studies.

Achieving her objectives the author of the article addresses the works of prominent philosophers of the Modern Time, that is why the analysis of the **problem under study as well as review of the sources** are carried out in the substantial part of the article.

Presentation of basic material. F. Bacon is considered as one of the founders of the Modern Time experimental science methodology. The main topic of his activity was substantiation of science capability and its meaning to a human being. He expressed his hopes for science and technical means, relating to it in his famous work «New Atlantis»: «We have also engine-houses, where are prepared engines and instruments for all sorts of motions. We have divers curious clocks and other like motions of return, and some perpetual motions. We imitate also motions of living creatures by images of men, beasts, birds, fishes, and serpents» [4, p. 521]. Out of this extract we can see that Bacon has foreseen the invention of more complicated technologies than the ones existing in Europe of the Modern Time. While analyzing the reflections of the philosopher we can identify some important points. One can feel there the aspiration in technical creativity, known since the Renaissance times, to follow the present natural examples, modeling

their characteristics. Faith in limitless technical capabilities of human mind, able to create weapon to increase power of a man not only over nature but over spiritual processes of a human being is astonishing. F. Bacon is marking: «The aim of our society is acknowledgment of reasons and hidden powers of all things and extension of people's power over nature until everything is possible to them» [5, p. 514]. The philosopher insisted on ontological unity of the man and technique.

Ukrainian modern researchers of philosophy of technique gave certain attention to the Modern Time period in their works. O. Alieva mentions that it is since the Modern Time «technique acquires substantial, determining and universal character» [1, p. 1] V. Melnyk considers the activity of that period as one of the expressions of human ability for creating the artificial, that is, on his opinion, «the spring of spinning out of total transformation dynamics» of this time that «became possible due to «the preparatory» work carried out in the previous stages and, first of all, by the institution of science as the specific way of the world acknowledgment» [12, p. 31].

As S. Beskaravajnyj approves that F. Bacon was the first to show inductive-analytical form of technical rationality which gave an opportunity to reveal objective laws of the phenomena used in technique without their perception as abstract models in the frames of the Modern Time methodology and ontology [2, p. 51]. L. Chekal stresses that it is since the Modern Time innovations have become the accelerator and impulse of the profound changes in the whole system of human life, the main engine in the civilization progress [14, p. 125–135].

Other methodological essentials are more relevant for R. Descartes works – technical reality implemented in deductive – synthetical form that anticipated a new perfect construction kit – «operation environment» where one could perform operations with perfect models which correspond the technologies used by engineers [2, p. 16]. In the ontology of the Modern Time – that could not yet demonstrate new realia of technical progress in full measure – there was a place for some technical phenomena. R. Descartes was the first in the Modern time who compared a man with a machine. In his famous work «Observation on the method to

direct one's mind correctly and to search the truth in sciences» he wrote: «If instead there appeared machines similar to our bodies, imitating our actions as far as it could be possible in moral aspect and we would always have two way to identify where the real men are. One way is that they would never use any words or other characteristic elements compounding them in such a way as we do to transfer our ideas to others.... The second way is the following: even if those machines perform some things as well as some of us do or even better, they wouldn't definitely perform a number of things that would demonstrate them working not consciously but only due to the location of their organs. Whereas our mind is the universal tool and can function in any circumstances, those organs need specific location for performing every separate act. The conclusion follows that it is morally impossible to have so many organs in one machine to make it act in any life conditions in the same way as it is possible for us because of our mind» [8, p. 73–74].

Ukrainian philosopher O. Burova emphasizes that «for Descartes a human body is a machine that sustain life. However that machine is «dead» and «blind» because it knows nothing. And only the mental efforts, that make possible the body's deliverance, can provide, first – real existence, second – the ability to see that machine» [3, p. 8].

On the ground of the written above we can approve that R. Descartes considered human mind the most important element that makes difference between men and machines.

While analyzing the mentioned above guidelines of those prominent philosophers of the Modern Time period we can see both their similar and different features. Thus F. Bacon insisted on unity of technique and a man but R. Descartes pointed at their differences, that is especially important considering modern philosophical tendencies. In deism of the Modern Time that has developed in conditions of progress of mechanics, the world gradually acquires similarity with a big mechanism. It is natural that great German philosopher and mathematician G. Leibnitz joint deism. The philosopher explained that God, who foresees inclinations of every human soul, since the beginning of the world has designed «great machine» of material universum so that the corresponding movement in human bodies – in the parts of that «great machine» – took place according to the laws of mechanic [10, p. 524]. Thus comparing the views of the great philosophers of the Modern Time one can identify that G. Leibnitz revives the role of final reasons without which it is impossible to imagine activity of the whole organism, that is human activity. He defined the human organism as a «natural machine» in which every part is also a machine. That means that perfection of its construction is endless and none of the details is missed when in «artificial machines» parts are not machines as themselves. Here you can see the essential difference between the natural and the artificial, between a man and his creation. It is worth to mention that G. Leibnitz having given a credit to mechanic philosophy of his time, where mechanic was identified with Euclidian mathematics, has in a great measure gone beyond it. On his opinion the mechanic and mathematics of

that time revealed not all the forms and ways of thinking. He remarked: «When all characteristic numbers for most notions are determined, then humankind will get kind of a new «organon» that will empower spirit much more than optical glass would empower eyesight, and which will as excel microscopes and telescopes as mind is higher than eyesight» [11, p. 418].

S. Beskaravajnyj pointed that the worldview created by G. Leibnitz was quite whole and permitted to explain conclusively a number of notions out of scientific rational view. It has the influence of the Modern time technical level [2, p. 17].

In the Modern time philosophy the research priority changes: from the perfect method to creation of such worldview that would use this method most effectively. However at the initial stage of this activity one can say only about boundary conditions identifying the field of productive interconnection between science and technique. Worldviews created by R. Descartes, G. Leibnitz and other philosophers couldn't relevantly demonstrate development of science and technique. Their ideas were essential for philosophical science: there was proved only possibility in principle to create the worldview in the boundaries of which its productive rational acknowledgement is affordable [2, p. 16]. Nevertheless some of those philosophers felt the lack of the dominant ontological systems and they made attempts to go beyond to new lines.

For the representatives of German classic philosophy positive attitude to science and technique is typical. They are in general assured in limitless capability of human mind, they believe in victory of the man's creative power over powers of nature in future, in cultural progress, in possibility of eternal peace in the world. In their works we can observe ideas about the essence of the technical which have gnoseological character and relate to the sources of knowledge and their relation to peculiarities of human perception and activity. In I. Kant's works we can find reflections on correlation of theoretical, practical and technical aspects in acknowledgment process. On his opinion practical standpoints, if they directly approve capability of an object by our will, always refer to knowledge of nature and to theoretical part of philosophy. These are the standpoints which give definition of one or another action only through presentation its form. These very standpoints can and must have their specific principles, rooted in the idea of freedom [9, p. 107].

J. Fichte in his treatise «The closed commercial state» identified that people shouldn't passively wait for benefits from nature, they have to make them by working. «And there is no other way to this, – the philosopher remarked – than art and technique with the help of which the most insignificant power used effectively is equal to the power thousand times stronger. But art and technique appear as the result of constant practice. They appear because somebody devotes all his life to one occupation, directing all his thoughts and efforts to it. Worlds of work necessary for life should be divided according to this consideration. «The power is the most effective only upon this condition» [13].

Hegel at his works also has reflections on work as necessary condition of human activity that creates a tool, the interagent, with the help of which one

can satisfy all range of needs. Purchase of outward items, determined and mediated by the will of the owners, by their needs on one hand, and creation of tools that are due to exchange through work – on the other hand. Needs are met by work of all humans, it is general achievement, that means: work is socially predetermined activity. «Work... – Hegel considers – leads to easiness of work and increase in production as the result of its drabness on one side and limitation by one skill and due to this – dependence of social connection – on the other side. Consequently the skill becomes a mechanic one and makes substitution of human work by machines possible» [7, p. 343]. In this extract of Hegel's «Encyclopedia of philosophical sciences» we first see the notion of «machine». We may notice that the philosopher regards implementation of machines as the result of socially organized work development and underlines that a machine replaces a man only when work turns monotonous and limited by one skill. We see resemblance of this thought concerning tools with the mentioned above statement by Fichte about tools grounding on a skill, exercise (Fichte), but Hegel relates this process to meeting of social needs.

Therefore working tools that can be considered as machines (machinery) appear at specific stage of skills development and is the result of human society development on Hegel's opinion. Here, as in other situation, Hegel reveals himself as a dialectically thinking philosopher. In another work «Science of Logic» he meditates on mind's role in interrelation between a person who sets a goal and the object. «The goal – Hegel remarks – places itself in meditative correlation with the object and sets between itself and the goal one more object» [6, p. 200]. The philosopher regards it as craft of mind. That second object is working tools, mechanics (techniques). If not that second object, mind would have to relate directly to the outer object and then it would enter «the area of mechanism or chemism, where it would be open for fortuity and end of its definition – be in itself and for itself existing notion» [6, p. 200]. So mind sends another object to meet the first one instead of itself and it serves as a tool. That object (the tool) gets exhausted, loses strengths because outward work, when the mind protects itself from mechanical debilitation. At the same time rationality is preserved in the tool as in the outward other item as well, exactly because of that otherness. Tool is bigger than outward relevance. Tool is preserved and

the direct benefit from it is temporary. Hegel gives an example of a plough that is more worthy than the temporary goals it serves. What is bigger than is in a plough – the rationality objectified in it. Tool is the means of cooperation of a man with nature which is deprived of mind on Hegel's opinion. In such cooperation a man occupies ruling position. The philosopher stresses: «A man rules over outward nature because of the tools although a man should be subdued to it relating to the goals» [6, p. 201].

Although the goal stands not only outside the mechanical process but is kept in it as its definition. The goal fuses with itself in the mechanism; it is in itself and for itself the essence of the mechanism. So the mechanism, according to Hegel, exists as implementation of the goal set in the process of human activity.

The above mentioned ideas of the German philosophers are quite diverse if review them cursorily. Deeper consideration finds some essential common points. Specifically technique is viewed as the result of mind activity, thoughts, and theoretical ideas in general. The technical item is practical judgment and here it is comparable with art. Technique as well as art is based on constant efforts, skills, endless exercising and is the way of human power increase, progress in mastering the nature, in cultural development of humankind. Technical activity of a relational person is reflected in the works of German philosophers through dialectics of notions «Goal and mechanism», «process», «goal and tools», «working tools», «art and technique».

On the ground of philosophical analysis of the works of prominent philosophers of the Modern Age concerning technique we can come to the conclusion about their perception of technique as one naturally connected to progressive development of society.

Insights from this study and perspectives for further development in this direction.

Conceptions of the Modern time philosophers were and are the preoccupation of the representatives of modern Ukrainian philosophy of technique. The researcher come **to the conclusion** that in distinction from the previous ages since the Modern Time technique has acquired universal character and technical innovations has become the main engine of civilization technical progress. The ideas concerning science, technique and their interconnection of the prominent philosophers of this age naturally went into context of Ukrainian specialists on philosophy of technique researches.

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ОСОБЛИВОСТИ ПАРАДИГМИ ТЕХНІЧНОГО МИСЛЕННЯ ЄВРОПИ НОВОЧАСНОЇ ДОБИ ТА ЇХ ІНТЕРПРЕТАЦІЯ В УКРАЇНСЬКІЙ ФІЛОСОФІЇ ТЕХНІКИ

Анотація

У статті розглянуто ряд положень видатних представників новочасної доби щодо технічної діяльності, її сутності і перспектив в контексті досліджень українських філософів. На підставі філософського аналізу праць мислителів епохи Нового часу щодо техніки зроблено висновок про розуміння ними техніки як діяльності, органічно пов'язаної з прогресивним розвитком суспільства. Технічні інновації стають основним двигуном технічного прогресу. Сучасні українські дослідники приділили певну увагу періоду Нового часу. З'ясовано, що ідеї видатних філософів цієї доби щодо науки, техніки та їх взаємозв'язку були і є предметом уваги представників сучасної української філософії техніки.

Ключові слова: техніка, методологія, філософія техніки, технічний прогрес, Новий час.

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ОСОБЕННОСТИ ПАРАДИГМЫ ТЕХНИЧЕСКОГО МЫШЛЕНИЯ ЕВРОПЫ ЭПОХИ НОВОГО ВРЕМЕНИ И ИХ ИНТЕРПРЕТАЦИЯ В УКРАИНСКОЙ ФИЛОСОФИИ ТЕХНИКИ

Аннотация

В статье рассмотрены ряд положений выдающихся представителей современной эпохи относительно технической деятельности, ее сущности и перспектив в контексте исследований украинских философов. На основании философского анализа трудов мыслителей эпохи Нового времени относительно техники сделан вывод о понимании техники как деятельности, органически связанной с прогрессивным развитием общества. Технические инновации становятся основным двигателем технического прогресса. Современные украинские исследователи уделили определенное внимание периоду Нового времени. Выяснено, что идеи выдающихся философов этой эпохи относительно науки, техники и их взаимосвязи были и являются предметом внимания представителей современной украинской философии техники.

Ключевые слова: техника, методология, философия техники, технический прогресс, Новое время.