ФИЛОСОФИЯ НАУКИ И ТЕХНИКИ

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ON SOME ASPECTS OF SCIENTIFIC RESEARCH

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Abstract
Aim. Based on philosophical methodology, to reveal in detail the nature, essence and content of scientific research, to reveal some aspects of the general scientific algorithm of cognition as an integral universal tool, as well as some aspects of categorical thinking.
Methodology. The work was carried out based on a systematic approach using methods of classification and comparative analysis.
Results. It has been established that the general scientific algorithm of cognition is formed primarily on the basis of philosophical knowledge, but at the same time, its content dialectically "subtracts" the methodological capabilities of both sectoral and specific sciences. The general scientific algorithm of cognition can rightfully be considered fundamental in the methodology of scientific research. It is the first necessary link in the methodology of analyzing all phenomena of reality without exception. The general scientific algorithm of scientific research largely determines the essence of the procedures for selecting scientific methodological tools for solving cognitive problems and, at the same time, influences the determination of the sequences of their use in the study of phenomena.
Research implications. The results of the study can be used to improve the methodological competencies of both teachers of philosophical disciplines and students.

Keywords: science, methodology, algorithm of cognition, categories, activity

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Научная статья

О НЕКОТОРЫХ АСПЕКТАХ НАУЧНОГО ИССЛЕДОВАНИЯ

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Аннотация

Цель. На основе философской методологии детально раскрыть природу, сущность и содержание научного исследования, а также некоторые аспекты общенаучного алгоритма познания как интегрального универсального средства и категориального мышления.

Процедура и методы. Работа выполнена на основе системного подхода с использованием методов классификации и сравнительного анализа.

Результаты. Установлено, что общенаучный алгоритм познания формируется прежде всего на базе философского знания, но вместе с тем в его содержании диалектически «сняты» методологические возможности как отраслевых, так и частных наук. Общенаучный алгоритм познания правомерно считать базовым в методологии научных исследований. Он является первым необходимым звеном методологии анализа всех без исключения явлений действительности. Общенаучный алгоритм научных исследований во многом определяет суть процедур выбора методологических средств науки для решения задач познания и в то же время влияет на определение последовательностей их использования в ходе изучения явлений.

Теоретическая и/или практическая значимость. Результаты исследования могут быть использованы в совершенствовании методологических компетенций как у преподавателей философских дисциплин, так и у обучающихся.

Ключевые слова: наука, методология, алгоритм познания, категории, деятельность

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Introduction

The writing of this article is motivated by a number of factors. In our view, the most significant are the following.

As is well known, in our country, a course entitled "Methodology and Methods of Scientific Research" was introduced into the graduate student training system in 2014. Without a doubt, classes on this topic should be based on specific scientific, methodological, and methodological sources. At the same time, there are currently few sources that fully and systematically present the problems of a course devoted to the methodology of scientific research.

Fragments concerning this issue are scattered across numerous works, which undoubtedly complicates the work of graduate students studying this course. Furthermore, the lack of a systematic educational and methodological source on the methodology of scientific research does not ensure a productive resolution of the contradictions presented in the works of various authors studying this topic. Analysis shows that in modern scientific literature, one can encounter mutually exclusive points of view on both the nature of scientific methodology and its content, essence, and functions.

In short, the introduction of "Methodology and Methods of Scientific Research" as a mandatory course in postgraduate training presupposes the creation and writing of a number of teaching aids devoted to these topics [1; 2].

Unfortunately, the work of teaching future research scientists the art of modern scientific methodology began in a context of a certain "allergy" to the methodological component of the development of modern science and practice. The current state of affairs can be characterized as a kind of "demethologization", where methodology is replaced by a host of

different methods. Furthermore, many dissertation councils have not defended dissertations on methodological topics for years, even decades. Moreover, many councils simply lack experts specifically focused on methodological issues.

Unfortunately, in recent years, a careless and oversimplified attitude toward the work of renowned scientific methodologists has become quite evident. This has particularly affected prominent philosophers who have made significant contributions to the development of general scientific methodological issues. Among them, we note once again with regret, were I. D. Andreev, V. G. Afanasyev, G. A. Brutyan, A. V. Brushlinsky, V. S. Gott, V. N. Demin, A. P. Dmitriev, E. V. Ilyenkov, B. M. Kedrov, O. I. Kedrovsky, A. A. Kokorin, M. I. Konkin, P. V. Kopnin, V. P. Kokhanovsky, S. A. Lebedev, A. N. Leontyev, I. S. Narsky, T. I. Orzeiman, M. E. Omelyanovsky, Z. M. Orudzhev, A. I. Rakitov, G. I. Ruzavin, M. N. Rutkevich, V. N. Sagatovsky, E. F. Solopov, A. G. Spirkin, L. N. Suvorov, Zh. T. Tulenov, V. S. Tyukhtin, S. A. Tyushkevich, A. D. Ursul, S. M. Shalyutin, V. S. Shvyrev, A. P. Sheptulin, E. G. Yudin, and many others. Neglecting the experience of these researchers has essentially deprived modern methodology of a solid historical foundation, a basis for its ongoing development.

In fairness, it should be noted that the criticism of Marxist theory, and at times its rejection, has led to the "baby" – that is, Marxist methodology – being thrown out with the bathwater of nihilism regarding Marxism. The latter contained much that was constructive, productive, and vital. It is worth noting, not without satisfaction, that those modern scholars who find a fruitful component in Marx's methodology are right to do so. This is manifested, above all, in a return to the methodology of Marxist economic theory [3].

It is justifiably concerning that a "methodological fad" has developed in contemporary scientific research – a "fashion" for the obligatory use of certain "fashionable" methodologies, often ones that have not yet fully proven their true scientific status. This weakens scientific research. Among such "fashionable" methodological schools (without denying their significance, but objecting to the exaggeration of their research potential), we should mention: abstractionism, globalism, dogmatism, synergism, structuralism, sukenism, antiscintism, functionalism, evolutionism, and other "calling cards of postmodernism". It is obvious that exaggerating the role of these methodologies weakens the methodological culture of scientific research.

Scientific research is often based not on scientific methodology, but on conventional methods – at best, common sense methodologies. While not categorically denying their existence and role in society, one must recognize the limitations of their research capabilities. This fact also necessitates rigorous approaches to understanding the essence and functional capabilities of scientific methodology.

There is reason to believe that many researchers lack a thorough understanding of the dialectic of such closely interrelated and complementary phenomena as scientific theory, scientific methodology, and scientific method. Theoretical forms are often equated, or even identified, in the minds of researchers with methodological tools (techniques, methods, approaches, methods, and methodologies), and the dialectic of methodological tools (techniques, methods, approaches, methods, and methodologies) is equated with basic methodological procedures (analysis, synthesis, induction, deduction, comparison, observation, abstraction, modeling, experimentation, and other procedures of scientific inquiry).

In our opinion, modern science does not devote sufficient attention to the study of the dialectical connections between the methodologies of specific, sectoral, and philosophical disciplines. Yet, it is clear that solving scientific research problems in all relevant areas of knowledge presupposes the interdisciplinary integration of methodologies. This circumstance served as a unique trigger for writing this paper.

This obvious fact hardly requires extensive comment. What is at stake? The point is that the creation of works on scientific research

methodology forms the necessary foundation for effectively integrating science and practice. In this context, one can imagine the operation of logical relationships: the more thoroughly a scientific research methodology is developed and applied, the more profound the results of scientific inquiry. And the more adequate these results are to real-life processes, the closer they are to practice, the more effectively they can serve its interests.

We could continue to state the obvious facts, but those already described are probably sufficient to note that the social demand for works devoted to scientific research methodology has been created by life itself. It has been created by science and practice. It has been created by statistics concerning scientific research in recent years, the methodological basis of which is very often below average.

Scientific Research: Nature, Content, Essence

The objectives of this topic, without a doubt, must be addressed in three directions. First, it's clear that without understanding the essence of science as a specific social phenomenon, it's unlikely that one can deeply grasp the nature, content, and essence of scientific research. Second, it should be acknowledged that understanding the essential characteristics of science doesn't solve all the chapter's objectives. These objectives require developing a rigorous, objective approach to the phenomenon of the research process (study), since this chapter deals with scientific research. Finally, a complete picture of the nature, content, and essence of scientific research can be obtained by integrating knowledge about the essence of science with an understanding of the research process.

On Some Aspects of the General Scientific Algorithm of Cognition

Let us cite authoritative researchers on this topic. According to V. M. Burmakin, "the emergence and genesis of the general scientific algorithm of cognition has a completely obvious determination. All phenomena of existence, in addition to specific laws, are subject to the action of universal laws. This means that there exists a common foundation for their study, following the requirements of which it is possible to derive a general scientific algorithm for understanding the phenomena of existence. This foundation manifests itself in all situations and acts of scientific research, which we find confirmation of in the methodologies of both specific, sectoral, and philosophical sciences. Thus, the conclusion was born that identifying the common ground contained in the algorithms of all sciences will bring us closer to defining the essence of the general scientific algorithm of cognition, which is the main determinant of the methodology of scientific research, working in the interests of scientific research in all areas" [4, c. 61].

The author rightly believes that by its nature, the general scientific algorithm of cognition is "an integral universal tool formed in the course of the development of science, ensuring effective scientific research of all phenomena of existence without exception" [4, c. 61].

The author then rightly states: "An analysis of algorithms that have worked and are working in a wide variety of research fields has led to the following conclusions. First, no single study, in any field of knowledge, allows for the simultaneous and complete understanding of the phenomena of its subject area. Research always begins with the understanding of the elements, parts, aspects, and fragments of its objects. This is achieved through analysis, which ensures the dissection of the phenomena under study into their components and their understanding independent of the whole" [4, c. 61].

The general scientific algorithm of cognition, in its first position, prescribes the identification and study of elements (parts, fragments, aspects, sectors, etc.) of the phenomena being studied. It is obvious that, having identified and studied the essence of the elements that form the objects of cognition, it is necessary to study their interactions with one another. This is the second link, the second position, in the implementation of the methodological requirements of the general scientific algorithm of cognition.

It is common knowledge that each phenomenon under study represents a certain integrity (whole). Experience shows that the integrity of phenomena is ensured by the fact that their elements are interconnected in certain ways (in certain) sequences. These ways exist in all phenomena without exception (natural, social, intellectual).

The author rightly draws several conclusions:

1. The general scientific algorithm of cognition is formed, first and foremost, on the basis of philosophical knowledge, since it is philosophy that deals with the essence of universal processes occurring in nature, society, and human consciousness.

2. At the same time, the general scientific algorithm was formed not only on the basis of philosophy. Its content dialectically "sublates" the methodological capabilities of both sectoral and specific sciences.

3. The general scientific algorithm of cognition can rightfully be considered fundamental in the methodology of scientific research. It is the first necessary link in the methodology of analyzing all phenomena of reality without exception.

4. By itself, the General Scientific Algorithm of Cognition does not and cannot solve the entire set of scientific research problems. Its application in research must necessarily be supplemented by the methodological tools of other sciences.

5. The general scientific algorithm of scientific research largely determines the essence of the procedures for selecting scientific methodological tools for solving cognitive problems and, at the same time, influences the determination of the sequences of their use in the study of phenomena.

In short, it has a significant impact on the methods of understanding phenomena. In this rather condensed form, one can imagine the role and significance of the general scientific algorithm of cognition for the theory and practice of scientific research. In essence, the general scientific algorithm of cognition can rightfully be classified as the basic algorithm of scientific research [4, c. 65].

On Some Aspects of Categorical Thinking

V. I. Lenin's thought, recorded in his "Philosophical Notebooks" while taking notes on Hegel's "Science of Logic", is very interesting, modern, and productive. He wrote: "... concepts are the highest product of the brain, the highest product of matter" [5, c. 149]. These ideas subsequently developed, more or less, and were expressed in the following interpretations.

Some modern researchers draw our attention to the definition of a concept as a form of science, the attributes of which are presented in a fairly broad range in the pages of scientific literature. A concept is often interpreted as an idea of something, a way of understanding something, intellect, a logically dissected general thought about an object, including a number of interconnected attributes. As a rule, a concept is considered the result of intellectual activity, representing the systematization of information about a phenomenon and the naming of that phenomenon. This position has been developed in approaches to the essence of concepts as thoughts that reflect the attributes of phenomena of a certain class [6, c. 368].

The authors rightly state: "In science, there is a fairly authoritative and stable definition of concepts as a form of thought capturing the essential properties of phenomena. There is a position – its essence: a concept captures not only the general characteristics of phenomena, but also the connections between them. We believe that the following definitions of concepts deserve special attention, as they are, in many ways, consonant with what has already been said about them. However, at the same time, they carry a certain clarifying load" [6, c. 368].

In particular, it is impossible to ignore the remark that a concept is a logically formulated general thought about an object, an idea of something; a representation, information about something. It is easy to see that the authors of the above conclusions view concepts as generalized thoughts, information about something, as ideas, and even as a method, a

level of understanding something. It seems to us that with this approach, any thought about phenomena can be interpreted as a concept, and this is difficult to agree with.

Indeed, "concepts are logical forms of thinking, like judgments and inferences, which, in our opinion, are expressed through concepts. This means that it is not entirely correct to discuss concepts as opposites of these forms. In short, researchers who view concepts as thoughts, forms of thinking that reflect and generalize the essential aspects and characteristics of phenomena, are closest to the truth" [6, с. 372].

It's common knowledge that terms, definitions, qualifications, and categories stand in the same logical order as concepts. Thus, it becomes necessary to express one's attitude toward these forms.

First, let's look at terms. In scientific literature, they are presented in essentially the same way, albeit with certain nuances. First, we should agree with this version of the distinction between concepts and terms. Its authors write: "...(as a rule, a concept is interpreted as an element of thought, and a term as an element of language)..."[1]. The following clarification cannot be ignored: "A term (from the Latin terminus – limit, boundary) is a word or phrase denoting a specific concept in a specific area"[2]. Clearly, this definition of the term also contains: a) an indication that it denotes a concept; b) it is its verbal form.

In fact, the same position is expressed in another source. The only difference is that the term, as a linguistic unit, serves as a means of objectifying the work of thought. Literally, it reads as follows: "A term...A linguistic unit is a word (or combination of words) that is the result of the objectification of the work of thought, denoting concepts in a specific field of science, technology, art, etc."[3] As can be seen, the proposed conclusion contains the observation that terms serve concepts not only in science, but also in technology, art, and other social fields.

The following statement adds a unique flavor to the understanding of the essence of terms: "A term is a word or combination of words that precisely defines a concept used in science, technology, or art"[4].

A certain intrigue arises when terms are qualified as forms that precisely reflect the essence of concepts. In this regard, it can be noted that the problem of the precise content of terms as linguistic forms requires additional attention and clarification.

It is important to note that in the above conclusion, definition is interpreted as a procedure for revealing the essence of concepts by listing their attributes. In other words, it plays the role of concretizing the essence of concepts. This can be agreed with if we consider the concrete understanding of the content of concepts.

It's not unreasonable to understand definitions as forms of consolidation, most likely terminological, of the essential features reflected by concepts. There are many findings in science that guide us toward understanding definitions as forms that capture the meaning of terms. Thus, one encyclopedic publication notes: "A definition (from the Latin *definitio* – limit, boundary) is a logical procedure for imparting a strictly fixed meaning (content) to linguistic terms".[5] As can be seen, definitions and attributions are conflated here. This is true on the one hand. On the other, they are categorized as logical procedures for determining the meaning of linguistic terms.

A position similar to the above point of view is defended by authors who assert: "A definition (definition) 1) establishes the meaning of an unfamiliar term (word)... 2) clarifies the subject matter, unambiguously characterizes it...".[6] This conclusion implies that definitions

[1] Елецкий Н. Д. Общая экономическая теория (политическая экономия): учебник. 2-е изд. Ростов-н/Д.: Феникс, 2008. С. 23.

[2] Куликов Л. М. Основы экономической теории: учебник. 2-е изд., перераб. и доп. М.: Юрайт, 2014. С. 13.

[3] Большой толковый словарь русского языка. Грамота: [Электронный ресурс]. URL: https://gramota.ru/poisk?query термин&mode=slovari&dicts[]=42 (дата обращения: 25.08.2025).

[4] Борисов Е. Ф. Экономическая теория: учебник для вузов. М.: ТК Велби: Проспект, 2008. С. 19.

[5] Словарь философских терминов / науч. ред. Б. Г. Кузнецова. М.: Инфра-М, 2005. С. 392.

[6] Новый энциклопедический словарь. М.: Эксмо, 2004. С. 847.

and definitions are identical; that they serve to establish the meaning of terms; that they help clarify the subject of knowledge, imparting certainty to concepts and unambiguity (relatively, of course) to their characteristics.

We believe that researchers who qualify definitions as "a brief definition, an interpretation of a concept, reflecting its main characteristics" are closest to the truth [4, c. 61]. This view of the essence of definitions is perhaps plausible. It notes at least two essential characteristics: "a) a brief definition; b) reflecting the main features of the concept. And terms are the verbal form of expression, the linguistic representation of concepts" [4, c. 62].

Definitions and qualifiers are essentially identical. They are means of establishing the meaning of terms, of concretizing, clarifying, and establishing the boundaries of the meaning of concepts, giving them semantic certainty.

Definitions and qualifiers are aimed at reflecting the main characteristics of concepts. Definitions and qualifiers can be distinguished, very conditionally, only by considering definitions as extremely brief, laconic definitions.

Thus, we can conclude: terms, qualifiers, and qualifiers are forms that help reveal and clarify the meaning and content of concepts. In other words, these are forms that work in the interests of concepts, deepening understanding of their content. Having more or less understood the unity and differences between terms, qualifiers, and concepts through an analysis of scientific literature, we will finally turn our attention to the problem of the relationship and interaction of concepts and categories.

Let's first consider what modern science has to say on this matter. First, it should be noted that the overwhelming majority of researchers view concepts and categories as forms of the same order. Most often, categories are defined through concepts. There is ample evidence for this. Second, there is a viewpoint in science that guides us toward understanding categories as semantic concepts. This view is presented in the following version: "Economic categories – semantic concepts of economic theory..."[1].

Clearly, this approach to categories suffers from a double "suffering". On the one hand, it's clear that there can be no meaningless concepts and categories in science. On the other hand, if this is true, then it's obvious that distinguishing or equating concepts and categories is truly meaningless.

Third, the prevailing position in science and practice is that categories are viewed as theoretical concepts. In our opinion, both concepts and categories in science are theoretical forms. It's unlikely that this assertion provides grounds for seeking their identification.

Fourth, it's worth noting that categories are fundamental concepts[2]. If fundamentality in science is understood as the certainty, solidity, and stability of its forms, then it is clear that this characteristic extends not only to scientific categories, but also to its laws, principles, concepts, and theories. Indeed, to science itself.

Many modern authors point out that categories are also forms of science, reproducing the essence of the elements and parts of the phenomena being studied. Let's not be unfounded. Let us present premises that support this conclusion. In particular, we read: "... scientific categories are concepts expressing individual, generalizing aspects of economic phenomena"[3].

Other economists approach the ontological foundation of categories in a similar way. The following premise deserves some attention: "An economic category is a logical concept that reflects, in abstract form, the most essential aspects of economic phenomena, processes, and mechanisms"[4]. As can be seen, the emphasis here is on the essential aspects of phenomena.

Sixth, an analysis of science and practice, on the one hand, shows that virtually all re-

[1] Носова С. С. Экономическая теория: учебное пособие. 2-е изд., стер. М.: Кнорус, 2016. С. 23.

[2] Елецкий Н. Д. Общая экономическая теория (политическая экономия): учебник. 2-е изд. Ростов-н/Д: Феникс, 2008. С. 23.

[3] Гусейнов Р. М. Экономическая теория: учебник. М.: Омега-Л, 2008. С. 13.

[4] Экономическая теория: учебник / под ред. И. П. Николаевой. 2-е изд. М.: ЮНИТИ, 2008. С. 7.

searchers see an ontological foundation for concepts and categories. On the other hand, they often interpret this broadly, believing that they work not only to reflect the essence of the elements, parts, and properties of cognizable phenomena, but also to understand the essence of the interactions of phenomena both with each other and with the environment. In our opinion, this leads to a "blurring" and "loosening" of the ontological foundation of concepts and categories, leading us into the realm of laws – forms of science that should precisely reflect the stable, essential, and necessary connections of phenomena.

Obviously, relationships and connections can also be viewed as specific elements, parts, and fragments of being and expressed through specific categories (interaction, relation, connection, law), but this is a different ontological cross-section of reality. It differs from the first-level epistemological task – understanding the essence of the elemental composition of the analyzed phenomena. In particular, science produces conclusions whose content identifies categories and laws[1].

Seventh, concepts and categories are identified not only with the content of laws. There are conclusions that guide us toward identifying categories with principles. The reason for identifying categories and concepts with principles, as we see it, lies in ignoring their ontological (existential) foundations.

Eighth, a rather original and at the same time productive conclusion is that all "categories are concepts, but not all concepts are categories".[2] There's hardly any need for extensive commentary here. There's only one "working" commentary. It's widely presented in the literature. Its essence is this: categories are concepts of the utmost generality. This characteristic of categories is pointed out by many researchers, one might say the majority[3]. In this context, one cannot ignore the message: "Categories (from the Greek kategoria – statement; attribute), primary concepts, extremely general, fundamental concepts…".[4]

As can be seen, categories are presented here as extremely general, fundamental concepts. In connection with this conclusion, it can be noted that all scientific concepts have a high degree of generality, as they reflect the essential characteristics of phenomena of a certain class.

When considering categories as scientific concepts of the highest degree of generality, a legitimate question arises: how can we understand them, how can we discern them, and by what criteria can we classify the highest degree of generality?

Let's turn to researchers who correctly distinguish between individual and general concepts. "A general concept, as opposed to an individual concept, signifies a concept of a genus, class, or species".[5]

Indeed, over the course of human life, people develop an individual view of the world, expressed in individual concepts. At the same time, science elevates people to the level of general concepts that reflect the essence of classes, species, and genera. That's the first point. Second, distinguishing three groups of disciplines – natural science, social science, and consciousness – it's legitimate to discuss the concepts and categories of each of these fields based on their degree of commonality.

Finally, there is philosophy, which deals with the laws of nature, society, and consciousness taken together. It is this philosophy that develops categories as concepts of the utmost generality. Those researchers who observe, "Philosophy attempts to develop universal concepts – categories", are right.[6] It seems to us that they coincide in their ontological foundation. This gives us the right to regard them as forms that differ little from each other in their content. This point of view is presented in many sources.

True, there are also "variations" on this theme. One cannot ignore the numerous con-

[1] Философия: учебник / отв. ред. В. П. Кохановский. М.: Кнорус, 2015. С. 263.

[2] Там же. С. 262.

[3] Бучило Н. Ф., Чумаков А. Н. Философия: учебное пособие. М.: PerSe, 2001. С. 55, 198; Советский энциклопедический словарь. М.: Советская энциклопедия, 1990. С. 558.

[4] Новый энциклопедический словарь. М.: Эксмо, 2004. С. 493.

[5] Философский энциклопедический словарь. М.: Советская энциклопедия, 1983. С. 313.

[6] Моисеева Н. А., Сороковикова В. А. Философия: краткий курс. СПб.: Питер, 2010. С. 14.

clusions that a category is a scientific concept expressing the most general properties and relationships of phenomena in reality[1].

To summarize the above, it's easy to see that categories are interpreted in the vast majority of cases as concepts, albeit very general ones, reflecting the essential characteristics of certain classes of phenomena. Economics experts overwhelmingly agree with this conclusion.

To be fair, it should be noted that sometimes the essence of economic categories is interpreted somewhat reductively, focusing on specific areas of the economic process. Moreover, this approach deviates somewhat from the established position in the approach to categories, which asserts that their content captures the essential characteristics of phenomena. In this regard, the idea that economic categories are merely "semantic concepts of economic theory that reflect the content of production (economic) relations" is skeptical[2]. And then, why is the subject matter of economic theory reduced in this case to the content of production relations? It seems to us that it is much broader.

It is hardly possible to fully agree that categories should be considered only as certain theoretical concepts (for example, value, trade, money, credit, etc.)[3] without defining their substantive, essential and functional characteristics.

Perhaps the most striking implication in the above conclusion is the premise: categories are ultimate concepts. A legitimate question arises: what are ultimate concepts? The vagueness of the terms through which the essence of certain forms of scientific knowledge is expressed, as is well known, does not contribute to the strengthening of their theoretical foundations.

In fairness, the following statement should be cited: "A category (Greek *kategoria* – statement, accusation; attribute) is an extremely general concept. It is formed as the final result of abstracting the specific attributes of objects. For it, a more general, generic concept no longer exists, and at the same time, it possesses minimal content, i.e., it captures the minimum attributes of the objects it encompasses. However, this content reflects the fundamental, most essential connections and relationships between objective reality and cognition".[4]

As can be seen, it attempts to define categories as extremely general concepts. According to the authors, they possess minimal content, that is, they capture a minimum of the attributes of the phenomena they encompass. And there's much here that's puzzling and not entirely clear. What does minimal content mean? What does it mean to encompass a minimum of attributes of knowable phenomena? The conclusion that, for example, an economic category is "a scientific concept that abstractly characterizes the essence of a phenomenon" sounds quite problematic[5].

The question arises: what does "abstractly" mean? One might assume that the category does not reflect the essential characteristics, in this case, of economic phenomena. Such categories are hardly needed in science. However, if the point is that categories reflect the essence of phenomena in a specific verbal form, then this clarification is necessary. Such a clarification has been proposed by other authors in science.

They write: "Category,… [Greek: kategoria] (A scientific concept denoting some very general, abstract class of phenomena, objects, or their characteristics").[6] One cannot ignore the conclusion that "…economic categories, i.e. logical concepts that represent a theoreti cal expression of the real conditions of life of society…"[7].

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1 Ожегов С. И. Словарь русского языка. М.: Русский язык, 1989. С. 232.

2 Экономическая теория: учебник / отв. ред. А. И. Добрынин, Л. С. Тарасевич. 4-е изд. СПб.: Питер, 2009. С. 23.

3 Куликов Л. М. Основы экономической теории: учебник. 2-е изд., перераб. и доп. М.: Юрайт, 2014. С. 16.

4 Новейший философский словарь. М.: Книжный дом, 2003. С. 310.

5 Политическая экономия: словарь / под ред. О. И. Оруджева. М.: Политиздат, 1990. С. 579.

6 Ушаков Д. Н. Большой толковый словарь современного русского языка. М.: Советская энциклопедия, 1935. С. 341.

7 Экономическая теория: учебник / отв. ред. А. И. Добрынин, Л. С. Тарасевич. 4-е изд. СПб.: Питер, 2009. С. 20.

It follows that economic categories are, after all, theoretical expressions of real processes of existence. Quite interesting and productive is the observation that categories "focus attention on the elements of the system of production relations, while laws focus on the connections within this system..."[1].

As can be seen, the author of the above position links the content of categories with the elements of phenomena, and defines laws as their interrelations. This conclusion is particularly interesting, as it points to an understanding of categories as forms that reflect the essence of the elements that form specific phenomena. In other words, it directly points to the ontological foundation of categories, to the essence of the elements that form the phenomena of reality. At the same time, the author of this point of view points out that the ontological basis of laws is the connections between these elements. This point of view, in our opinion, is closest to the truth.

Conclusion

Thus, in our opinion, the above conclusions essentially reflect modern researchers' understanding of the essence of categories. Let us relate them to approaches to the content of concepts. Let us present this relationship through a series of positions: concepts and categories are forms of scientific knowledge; they share a common ontological foundation – the essence of individual elements, aspects, and their connections. Essentially, while concepts reflect the essential characteristics of phenomena within certain classes, categories reflect the essential characteristics of all classes of phenomena without exception. In other words, across the entire scientific horizon, only philosophical (general scientific) concepts can attain the status of categories.

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