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UNIQUENESS AS A FORM OF THE COMMUNICATION AND NEGATION IN DEVELOPMENT FOR THE TYPES OF RATIONALITY

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Annotation. The article explores the unique, its essence and role in the development of types of rationality. The unique is explained as unrepeatable, which does not fit into the **actual** implemented reversibility, repeatability and cyclicity. This is a universal property that is inherent in the individual education and is expressed in the individual and unique elements, properties and relations. **The purpose of the research** is to reveal the unique as a scientific concept, apply it to the rationale for the processes of changing types of rationality. The connection of the unique with a single, natural, indefinite, negation is revealed. Negation is presented as a form of thinking of a cognizing subject for the realities of scientific knowledge. **Analysis of recent research and publications, initiated the solution of the problem of unique:** use of the articles by authors G. Bashlyar, P. Burak, P. A. Vodopyanov, A. I. Zelenkov, V. H. Voronkova, O. P. Puchenko, I. Prigogine, I. Stengers, V. S. Stepin, L. P. Turkin and others. **Research Methodology:** general logical and theoretical research methods are used, representing their procedural adaptation to the solution of the problem. Unique in science is determined by the subject through its critical understanding of innovation, value context and essential for a given level of development of science. It is divided by type, depending on the scientific problems to be solved. **Scientific novelty** – unique is presented as a form of rationality movement, the moment of development of knowledge, it is also a test of knowledge for innovation, scientific character, clarification and their correlation. The types of rationality – classical, non-classical and post-non-classical – are identified and the role of the unique in their development and changes is clarified. **Results of the research:** on the analysis of the development of the natural sciences, it was proved that the change of types of rationality is associated with the growth of the innovative spirit of these sciences. **Conclusions** – the innovative potential constantly consisted in the damage to the stability of the old methodological principles that could not be adapted to the new discoveries. In classical rationality, unique principles were: unambiguity, clarity, obviousness; in non-classical – relativity, complexity, chance, complementarity; in the post-non-classical determining principles are steel: nonlinearity, chaos, self-organization, open systems, and more. The change of types of rationality gradually turned the unique from exceptions for natural science into its subject.

Keywords: unique, cognition, methodology, types of rationality, natural science, laws, principles, individual, property, connection, denial.

Introduction. Analysis of the development for the scientific knowledge convincingly shows that at any stage of its development it appears as a unity of the unique and repeatable as integral parts of this process. Unique in science, cognition,

methodology, and education is the “litmus paper” that characterizes the movement of the inquiring mind for humanity into the secrets of nature, reflecting the level of development of the social intelligence in these areas of activity. The formation of science as a

specific form of the human activity; the transition from the ordinary level of knowledge to the theoretical; the emergence of an education system, instead of practical learning; substantiation of the laws for the logic of knowledge; change for types of rationality in the methodology; the representation of the content and essence of the convergent technologies – these are all stages for the development of unique in the cognition of a subject of that surrounding natural and social reality. And it can be argued that the unique is an attribute of the scientific knowledge that has a universal character.

Analysis of the references. The problem of the unique has been widely studied in the history of the philosophy and science. This problem was addressed in the pre-classical and classical rationality by Aristotle, A. Arno, R. Descartes, P. Nicole, B. Pascal, F. Bacon, G. Leibnitz, I. Newton, I. Kant, G. Hegel; in the non-classical – N. Bor, V. Heisenberg, V. Pauli, P. Sorokin, N. Berdyaev, A. Einstein; in the post-non-classics – G. Bashlyar, P. M. Burak, P. A. Vodopyanov, G. Gachev, A. A. Goloshubova, A. I. Zelenkov, V. H. Voronkova, T. Kuhn, I. Prigogine, I. Stengers, V. S. Stepin, K. A. Swasyan, A. I. Uemov, A. Yu. Tsofnas, L. P. Turkin, and others.

Being as an integral part of the processes for the socio-cultural development, the unique requires the comprehension of its essence. So, P. Sorokin, exploring the problem of the “eternally new questions,” writes: “What is the eternally new process?

This is “a unique process, a process that has neither repetitions and nor rhythms” [1, p. 775]. If we analyze scientific rationality as a system, and every system is constantly changing, which is reflected in the content of its types, then in this sense every type of rationality is always new and appears unique in relation to the previous one, but at the same time it contains a moment of the repeatability.

Referring to the scientific publications on the problem of a unique, each researcher uses this concept in his interest’s context. In the psychology, this is the problem of loneliness as a manifestation of the unique; the study of the Earth and its surrounding biosphere makes it possible to assert that our planet is unique, since mankind lives on it; A. Schütz, exploring culture, argues that it is “a unique, cultural-historical world”; the national language of any country is a unique sign system, etc. Analysis of these approaches suggests that the unique is as a property, has a universal character.

Despite the appeal of the researchers to the problem of the unique, it should be noted that there is no clear definition, the structure is not sufficiently disclosed, and therefore a new level of its understanding is necessary.

Research Methodology.

According to the peculiarities of the research procedures used in justifying the unique as a form of the communication and negation in the development for the types of rationality, the general logical and theoretical research methods were used, representing their procedural

adaptation to the solution of the problem. The procedures of the abstraction, generalization, analysis and synthesis, induction and deduction, historical and logical, are related to the general logical methods of the scientific research. Among the procedures of theoretical research, it is necessary to single out the method of the idealization, which allows the construction of special abstract objects that fix the semantic “loading” of the “unique” as a concept.

The formation of the idealization proceeded by successive multi-stage abstraction in the course of analyzing types of rationality and isolating, as well as fixing the properties of the unique in isolation from the unitary, regular, necessary, and random. The work also used the systemic and synergistic approaches.

The purpose of the article is to explicate the unique as a scientific concept, to apply it to the justification of the processes for changing the types of rationality.

The main part. The current state of the science level is characterized by a clear awareness of the uniqueness for its purpose and the development of society. Interest in the unique, as an object for the scientific research is a product of the practical needs of today. The unique manifests itself not only in scientific activities, but as a sociocultural phenomenon, it covers and extends to all spheres of the social activity. But in its content the unique cannot be reduced to a solid positive. For example, during the arms race, a new unique weapon is created that threatens humanity with a nuclear catastrophe. Today, the globalizing world through the collision of the

fundamental contradictions that arise in its formation also demonstrates the negative side of the problem for the unique. This is due to the coming overpopulation of nations; with the destruction of the economic independence for the weak countries of this world; with an encroachment on the territorial integrity, the traditional values of peoples, changes in their way of life, in favor of unifying the ideas for the ideologues of the strong countries. Therefore, the unique is must be considered as a dialectical contradictory process of the development and connection. Development is the process for the eternal inner renewal of that forms, by which it is presented, the replacement of the old with the new.

However, the entire path of the development is marked by the nodal points of the formation for a fundamentally new and unique. All this new in the first moment of time is born as a single, unique, but then cemented, transformed, ceases to be such in relation to the previous state. For example, initially all technical innovations are unique, which give rise to rapid and even tectonic shifts in the system of the social production. Consequently, the very essence of development implies the generation of a unique, inimitable, one that does not fit into the actually realized repeatability, cyclicity.

The internally ordered, natural character of development is the fundamental position of science. On the one hand, the pattern of development implies regularity, repeatability at all its stages. On the other hand, development necessarily generates a unique, inimitable, part of

this uniqueness beyond the specific laws for the previous stages of development. Such a paradox creates a dead end for thinking that does not take into account the positivity of constructive critical reflection, which appears as “the subject's thought about the realities of being. In this regard, it is a form for the movement of knowledge, the moment for development of knowledge; it is an element of knowledge, a component of knowledge. It can act as a test of the scientific knowledge, clarify and correlate them ... But the main wealth of its essence in logical and gnosiological terms is revealed, when it appears ... as a form of overcoming limitations in the cognitive process” [2, p. 9].

The problem of the relationship between the natural and the unique must take into account the peculiarities of concrete scientific knowledge, proceed from the fact that everything specific is transient in the process of development. The repetition of the particular, which exists for a more or less long time, is ultimately not absolute, it is subject to denial. At the level of the general laws of development, the “unity of the natural and unique”, – marks L. P. Turkin, – is one of those dialectical contradictions of development, which should not be obscured, “translating into language of contradictions, reducing them ... The dialecticity here is that the unique is partly included in the regular, but partly goes beyond it, denies it, giving rise to new specific patterns, that the pattern itself develops as a stable linkage of a number of unique events” [3, p. 31].

The opposite of the natural and the unique is relative: the regularity of each stage of development is denied by a unique event, a discovery that gives rise to new regularities of the next stage. In this regard, the unique is a connection. Connection as a relation can act in different ways, but the highest manifestation of communication is its manifestation in the form of a law, in this respect it acts as the determining component of the law. The laws in their content are specific (for example, in the natural sciences) and concrete-historical ones. But in any case, the law is an objective essential, internal, necessary, stable and repetitive connection, such a connection is the core of science. Despite the fact that scientists in various fields of the knowledge accumulate a large number of facts, but the relationship between them is not always realized in the form of law. Addressing the scientists, I. P. Pavlov urged them to gather facts, to generalize them, but where there are facts there is no science, science begins where the connection between facts is established. When it comes to teaching, it can be scientific, if it is based on laws and regularities established and confirmed by practice, but it can be in the form of the antiscientific, unscientific, and utopian.

The unique is not a law, it is a form of communication between the previous stage of knowledge and the subsequent analysis of this process shows that the whole spectrum of unique phenomena generated by development is quite wide, but not all of them are equivalent that is, one

unique is different from another unique.

Each unique event contains something universal and a special hierarchy of specific features, as well as single, unique, indefinite signs. Both the unique and the singular are indefinite in their meaning, there is nothing to compare them with, to identify them, they contain within themselves an element of difference that allows one to speak of its absoluteness. This makes them related. But in contrast to the unique, the individual does not always appear in the form of a connection; it is not the moment of the development of a pattern. The singular and unique are concepts that carry different semantic loads. They carry two characteristics, and different, of any individual education in the scientific process: extensional and intentional. The singular is not unique, because it is an instance of the genus or species; it always emphasizes belonging to the general, and unique is the opposition to the typical.

The formation of a unique within a specific pattern is the world of development, not the final dead equilibrium, which this process leads, because development is movement from the old to the new, but this movement must be considered based on the dialectic of the categories of the necessity and chance. The formation of the unique is necessary and objective, but it is also impossible to discard chance, because it is a kind of accelerator in the emergence of the unique, because chance is a form of addition and manifestation of necessity. There are no such unique events that would not serve as a form

of the natural manifestation, as well as an accident in its connection with necessity.

The manifestation of the unique as a form of connection with regularity well demonstrates the development of the entire system of scientific knowledge. Thus, in physics, the discovery of an electron in an atom (1897) and the determination of its charge (1898) by J.J. Thomson – determining a unique scientific discovery related to the penetration of the human mind into the depths of matter, changed the view of science on the atom as “first brick” of matter, proposed in the IV. B.C. by Democritus. The next unique event in this series was the discovery by E. Rutherford of alpha and beta rays, an explanation of their nature and the creation of a planetary model of the atom. In 1913, a new unique discovery in this area is associated with the name of N. Bohr, who developed a new quantum theory of the atom, based on two postulates: 1) the existence of a number of the stationary states for an atom ... 2) the condition of radiation frequencies when an atom transitions from the one stationary radiation to another. Its merit is also an introduction to the scientific knowledge of the principle of complementarity. A number of unique in this field of the science continued:

L. D. Landau, B. I. Stepanov, V. A. Fock and others.

In electrical engineering, there were unique discoveries of direct current (Ampere), alternating current (G. K. Maxwell), three-phase current (M. O. Dolivo-Dobrovolsky), etc.

In the methodology, this is the development of the system approach

by A. A. Bogdanov (in “Tectology?”), L. von Bertalanffy (“General Theory of Systems”, 1968); G. Haken – a synergistic approach (1977); M. Porter – cluster approach (1990); A. I. Uemov – general parametric theory of systems (1973).

In fact, the development of each science demonstrates a unique is not as a law, but as a form of transition from the old to the new, from the lowest to the highest.

Before considering the unique as a form of communication by the types of scientific rationality, it is necessary to explicate it as a scientific concept.

Based on the aforementioned, it is clear that the unique acts as an objective, essential phenomenon containing an absolute moment of difference, it is natural, relative, and rhythmic with respect to sustainably functioning systems. It is indefinite, singular, which a new quality is born; represents itself as a form of connection of the previous and subsequent stages in the development of scientific knowledge; it is determined by previous development, but does not fully fit into the scheme of transformation of one self-developing system into another.

The uniqueness of the perceived phenomenon in science is determined by the subject through the prism of its critical understanding of novelty, value context and significance for a given level of development of science. Uniqueness can be explicated as a universal property inherent in any scientific and sociocultural education and is expressed in the originality of its specific essence, determined by the architectonics and the connection of

its elements and properties. Uniqueness in science can be ranked by type, depending on the solution of scientific problems. The unique has different types and degrees of its manifestation: structural, conceptual, substrate, conceptuality-substrate, and others.

Exploring the unique, it should be noted that it is not born in science automatically by itself, but reflects the movement of an inquisitive, creative thinking scientist. The birth of a new, unique, especially in physics, chemistry, medicine, technology is often associated with risk. But today, only in the USA, China and the leading EU countries even unsuccessful experiments are encouraged. In this regard, J. Neisbitt writes that “America leads in the number of Nobel Prizes; it is an innovative country not because Americans are the smartest in the world, but because American culture makes mistakes, encourages creativity, learns from mistakes and willingly accepts a mistake of the businessman with a new project” [4, p. 268]. In China, they also realized that “failures in experiments, under the guidelines principals should not be punished, since it is experiments and the errors associated with them that lead to innovations” [4, p. 208].

Therefore, scientists are bravely taking risks when proposing new ideas and trying to implement them [14, p. 15]. “The risk ..., – notes L. A. Sosnovsky, – in a generalized view, waiting for any adverse events and situations in nature and society. Quantitatively, such an expectation can be assessed as the proportion of

“bad” in “good”” [5, p. 68]. In order progressively constantly increasing their pace of development, taking into account the processes of self-organization and chaos of open systems, modern science must constantly take risks, because the increment of scientific knowledge must be today not evolutionary, static, but increasingly dynamic, that also acts as a unique characteristic of the modern stage of scientific knowledge.

Exploring the processes of formation and development of scientific rationality, V. S. Stepin identifies and justifies the types of scientific rationality that permeate the development of science, starting from early capitalism to the present. These stages are: classical, non-classical and post-non-classical rationality [6].

The classical type of rationality is undoubtedly in the 17-th century. It was a unique leap in the development of the methodology of scientific knowledge. It is the foundation of the transition from reasonable rationality, based on the laws of Aristotle's logic, to scientific. The basis of the scientific rationality of the classical type was laid by F. Bacon, who substantiated the method of induction; R. Descartes, who explained the essence of deduction; I. Newton, which work based on the method of the experiment. Moreover, in the natural sciences are developed methods of the measurement, observation, etc. At the same time, F. Bacon, raising the question for the formation of a new methodology of scientific knowledge, demanded that Aristotle's logic be removed from this process. But the work of A. Arnaud and P. Nicolas “Logic or the Art of Thinking” (In the

1662, B. Pascal added the sixth chapter “On the Geometric Mind” to it), and also Leibniz's discovery of the fourth law of logic – the law of sufficient reason, proved that logic cannot be removed from the structure of the scientific knowledge.

What characterizes the classical type of thinking and rationality in general? To it is peculiar a holistic worldview as a methodological ideal. Its feature is the fact that by centering attention on an object, everything that relates to the subject, the means and the operations of its activity is eliminated. Such elimination is considered as a necessary condition for obtaining objectively true knowledge. The goals and values of science are determined by the worldviews dominating in science.

This rationality makes the search for absolutely reliable knowledge, which would be the starting point and, at the same time, the ultimate basis for the rest of the body of knowledge. The solution to this problem is achieved in various ways (empiricism, rationalism). But despite this, the principles of classical rationality are largely unified and proceed from the requirements of clarity (simplicity), the opposition of subject and object. The principle of determinism in its rigid (Laplace) version remains unshakeable for the classical rationality. And if, in the opinion of individual authors, the idea of a unique for the classical scientific thinking was not of interest, discarding the unique to the periphery of scientific research, then it is necessary to emphasize once again that the development of the methodology of scientific knowledge

in the 17th century – it should be recognized as a unique fact regarded as one of the most important values in the human life activity. On the basis of this fact, the process of formation for a disciplinary-organized science, the emergence of a variety of disciplinary ontologies, the emergence of regulatory structures supporting special scientific research in its various fields [16, p. 48] went on – all this increased interest in methodological tools, that caused its rapid development.

At the turn of the XIX – XX centuries, science has begun to explore new areas of reality of the mega- and micro-world. The nature of the new objects studied required the restructuring for the ideals and norms of research, which led to the emergence of a new type of scientific rationality, implemented in fundamentally new procedures for describing, explaining, proving, substantiating the scientific nature of knowledge, as well as its standards. At that time, is formed a new type of thinking, losing ambiguity, clarity, the opposition of the subject to the object. Non-classical rationality, according to the ideas by V. S. Stepin, takes into account the relationship between knowledge about the object and the nature for the funds and operations of the activities of the subject. But as before, the links between intra-scientific and sociocultural values and goals remain outside their explication.

The non-classical type of science and rationality counts from the discovery of radioactivity by spouses J. Curie and M. Skłodowska-Curie, as well as the discovery of an electron in

an atom by J. J. Thomson, and then a pleiad of scientists of the "quantum era" In this regard, V. Arshinov and J. Swarsky write: "With name of the scientists of the "quantum era", such as N. Bor, A. Einstein, V. Heisenberg, V. Pauli, is connected with the acquisition of a qualitatively new human dimension by the science of the twentieth century. This is a measurement in the methodology of the science of the quantum era, primarily as a combination of its principles, such as the principle of the relativity, complementarity and observability. At the same time, the principle of observability – when considering cosmological issues that concern the emergence and development of the Universe, including man and his mind – was transformed into the so-called cosmological anthron principle "[7, p. 61].

By the beginning of the twentieth century, a new style of thinking of non-classical science was formed, initiated primarily by the problems that had arisen in the field of research in quantum mechanics, which implied a rejection of the absolutization and ontologization of the scientific abstractions of any level. By virtue of this circumstance, non-classical scientific rationality that implements the activity approach, as its methodological basis, put an end to the desire to obtain an unchanged picture of the object being studied, existing independently of other objects, with an explanation and description of it regardless by the conceptual explanation means [8, p. 224].

The non-classical type of rationality is a novelty in science. Unique in this type of rationality is connected not only with new unique discoveries in science of this period, but also with new methodological innovations, representing and explaining their essence, with new principles explaining natural reality.

The connection of the above-mentioned first two types of rationality is investigated by G. Bashlyar. In the work "New Scientific Spirit" he reveals the victory of the new mind over irrationalism. The change of types of rationality appears in his work as a crisis of the old in relation to the new. However, "a crisis in the science is a normal crisis of growth" [9, p. 153]. If to tradition (the classical rationality) is peculiar to conservatism, the innovation speaks of development. He argues that the development of science deep into requires the rejection of some principles of classical epistemology, such as unambiguity, evidence, clarity (from principles that have been formulated by Descartes) and recognition of relativity, complexity, randomness (giving rise to the search for the uniqueness). This conclusion confirms the real state of science of the 20th century that has already ended. "We are becoming increasingly aware that at all levels, from elementary particles to cosmology, chance and irreversibility play an important role, the importance of which increases with the expansion of our knowledge. Science is rediscover time for itself" [10, p. 35]. As this statement testifies, I. Prigogine and his co-author I. Stengers pay attention to the

increasing importance of the unique in scientific research. This becomes obvious if one goes deeper into the meaning of what has been said. After all, chance and irreversibility, which the increasing importance, that emphasize in modern science, are characteristics of time.

Post-non-classical rationality, which emerged in the last quarter of the twentieth century, concentrated its efforts on the development of unique systems that are characterized by openness and self-organization. V. S. Stepin connected this essence with the fulfillment of the requirements to take into account the correlation of the research result with both the specifics of cognitive means and operations, and with the value-targeted structures of science and society in their interconnection.

What are the unique beacons of the post-non-classical rationality? These include the formation of the synergistic and cluster approaches and the development of convergent technologies.

In the last quarter of the twentieth century, in connection with the current situation, synergetic appears, which many view as the philosophy of the modern non-classical science, as the methodological basis of cognitive, prognostic, and managerial activities in the modern world. The concept of a synergetic was introduced into scientific vocabulary by G. Hacken [11] and, in his understanding: it initially appeared only as a theory of self-organization of physical, chemical and biological macro-systems.

The goal of this science G. Hacken saw the need to identify the

fundamental principles and laws governing the transition of systems from initial states to new ones. It was physicists who first noticed that many physical and chemical systems are formed spontaneously: they self-organize. Describing the essence of synergy, E. N. Knyazeva and S. P. Kurdyumov writes: "If we look for the extremely brief essence of synergetic as a new scientific paradigm, then such a characteristic would include only three key ideas: self-organization, open systems, nonlinearity" [12, p. 42]. But the idea of the self-organization is of interest and for scientists of the humanities the chance moment, as non-classical science has found, to exclude from the system of the scientific knowledge is impossible. Randomness, as it G. Hacken defines, is fundamentally unpredictable reasons, that causing irregular movement [11, p. 363].

And unpredictable reasons are a fairly wide range of the various factors, including those that have the character of uniqueness, that is, those signs which we attribute to uniqueness at the common sense level.

The cluster approach is purely practical in nature; it justifies the need for a thematic explanation of the companies and related organizations for science and education on the basis of complementarity, which is achieved by a special structure – the type of interconnection. "From the point of view of the management, financial and technological functions, the cluster is a complex self-developing system, since it combines the opposite properties, the relative independence of its subsystems and

the priority in ensuring the functions of the system as a whole" [13, p. 385].

A special breakthrough in the post-non-classical rationality is embodied by convergent NBIC-technologies. The nanophysics, nano-chemistry, nano-biology, nano-informatics, nano-electronics, molecular chemistry and other sciences that emerged at the end of the 20th century dramatically deepened the scientific picture of the world. Nanotechnologies appeared as a system of theoretical knowledge, which includes knowledge of the properties and processes used in the conditions of artificially created systems to form models of technical artifacts and other technical phenomena, as well as knowledge of the ways, methods and means for the materializing of this knowledge.

A special place in convergent technologies belongs to biotechnologies. These technologies affect both environmental problems (environmental) and problems of a biomedical nature associated with exposure and interference with human biological nature. Biotechnology, in the context of the nano-technological revolution, is associated with the nano-metric level of the development of living matter, they appear as special technologies that are actively exploring and influencing living organisms and substances and developing new nano-biological tools to solve modern global biological problems.

The determining component of the convergent technologies is the informational ones. These technologies include a set of

operations performed on information resources using modern technological tools and methods for obtaining a specific information product and solving assigned tasks. They can be explained as a set of methods for the obtaining, processing and representation of information. The main task of information technologies is the process of informatization, as a global social process aimed at “mastering” the information and intellectual resource of society.

Conclusions.

The unique is revealed as an objective, inimitable, essential phenomenon, containing in itself the absolute moment of distinction, it is natural, relative, rhythmically with respect to stably functioning systems. It is indefinite from, which a new quality is born; represents itself as a form of connection of the previous

and subsequent; it is determined by previous development, but does not fully fit into the scheme of transformation of one self-developing system into another.

Analyzed the relationship of the unique and natural; the difference between the unique and the individual is explained, and it is also established that the unique is a form of connection between the previous and subsequent stages in the development of science. On the example of the types of rationality – classical, non-classical and post-non-classical, unique events in science are highlighted, which are a form of connection between these types of rationality and their changes. Each new type of rationality is characterized by the basis of science peculiar only to it, which explains the continuity between them.

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УНІКАЛЬНІСТЬ ЯК ФОРМА ЗВ'ЯЗКУ ТА ЗАПЕРЕЧЕННЯ У РОЗВИТКУ ТИПІВ РАЦІОНАЛЬНОСТІ

Анотація. У статті досліджується унікальне, його сутність та роль у розвитку типів раціональності. Унікальне з'ясовано як неповторне, яке не укладається в **актуально** реалізовану зворотність, повторюваність, циклічність. Це універсальна властивість, яка присутня всякому індивідуальному утворенню та має вираз в єдиних та неповторних елементах, властивостях та відносинах. **Мета дослідження** – розкрити унікальне як науковий концепт, застосувати його до обґрунтування процесів зміни типів раціональності. Розкрито зв'язок унікального з одиничним, закономірним, невизначеним, заперечним. Заперечення репрезентовано як форма мислення суб'єкта, що пізнає реалії наукового знання. **Аналіз останніх досліджень і публікацій, з яких започатковано розв'язання проблеми унікального:** використання статей авторів Г. Башляр, П.М. Бурак, П.А. Водопьянов, А. І. Зеленков, В.Г. Воронкова, О.П. Пунченко, І. Пригожин, І. Стенгерс, В.С. Степин, Л.П. Туркін та інші. **Методологія дослідження:** використані загальнологічні та теоретичні методи дослідження, що представляють собою процедурну їх адаптацію до вирішення поставленої задачі. Унікальне в науці визначається суб'єктом через його критичне осмислення нововведення, ціннісного контексту та суттєве для даного рівня розвитку науки. Воно розділяється за видами, в залежності від вирішуваних наукових задач. **Наукова новизна:** унікальне представлене як форма руху раціональності, момент розвитку пізнання, це також перевірка знань на новину, науковість, уточнювання та їх кореляція. Виділено типи раціональності – класичний, некласичний та постнекласичний та з'ясовано роль унікального у їх розвитку та змінах. **Результати дослідження:** на аналізі розвитку природознавчих наук доведено, що зміна типів раціональності пов'язана зі зростанням новаторського духу цих наук. **Висновки:** новаторський потенціал постійно полягав у втрачанні стабільності старих методологічних принципів, які неможливо було пристосувати до нових відкриттів. В класичній раціональності унікальними принципами були: однозначність, наочність, очевидність; в некласичній – відносність, складність, випадковість, доповнюваність; у постнекласичній детермінуючими принципами стали: не лінійність, хаос, самоорганізація, відкриті системи та інше. Зміна типів раціональності поступово перетворила унікальне з виключень для природознавства в його предмет.

Ключові слова: унікальне, пізнання, методологія, типи раціональності, природознавство, закономірності, принципи, одиничне, властивість, зв'язок, заперечення.

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Uniqueness as a form of the communication and negation in development for the types of rationality

УНИКАЛЬНОСТЬ КАК ФОРМА СВЯЗИ И ОТРИЦАНИЯ В РАЗВИТИИ ТИПОВ РАЦИОНАЛЬНОСТИ

Аннотация. В статье исследуется уникальное, его сущность и роль в развитии типов рациональности. Уникальное выяснено как неповторимое, которое не укладывается в **актуально** реализованную возвратность, повторяемость, цикличность. Это универсальное свойство, которое присуще всяком индивидуальном образованию и имеет выражение в единых и неповторимых элементах, свойствах и отношениях. **Цель исследования** – раскрыть уникальное как научный концепт, применить его к обоснованию процессов изменения типов рациональности. Раскрыта связь уникального с единичным, закономерным, неопределенным, отрицанием. Отрицание представлено как форма мышления познающего субъекта реалии научного знания. **Анализ последних исследований и публикаций, в которых начато решение проблемы уникального:** использование статей авторов Г.Башляр, П. Бурак, П.А. Водопьянов, А.И. Зеленков, В.Г. Воронкова, О.П. Пунченко, И. Пригожин, И. Стенгерс, В.С. Степин, Л.П. Туркин и другие. **Методология исследования:** использованы общелогические и теоретические методы исследования, представляющие собой процедурную их адаптацию к решению поставленной задачи. Уникальное в науке определяется субъектом через его критическое осмысление нововведения, ценностного контекста и существенное для данного уровня развития науки. Оно разделяется по видам, в зависимости от решаемых научных задач. **Научная новизна:** уникальное представлено как форма движения рациональности, момент развития познания, это также проверка знаний на новшество, научность, уточнения и их корреляция. Выделены типы рациональности – классический, неклассический и постнеклассический и выяснена роль уникального в их развитии и изменениях. **Результаты исследования:** на анализе развития естественных наук доказано, что смена типов рациональности связана с ростом новаторского духа этих наук. **Выводы:** новаторский потенциал постоянно состоял в ущербе для стабильности старых методологических принципов, которые невозможно было приспособить к новым открытиям. В классической рациональности уникальными принципами были: однозначность, наглядность, очевидность; в неклассической – относительность, сложность, случайность, дополнительность; в постнеклассической детерминирующими принципами стали: нелинейность, хаос, самоорганизация, открытые системы и прочее. Изменение типов рациональности постепенно превратила уникальное из исключений для естествознания в его предмет.

Ключевые слова: уникальное, познание, методология, типы рациональности, естествознание, закономерности, принципы, единичное, свойство, связь, отрицание.

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