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Мультидисциплинарность и трансдисциплинарность в становлении новейшей рациональности

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Аннотация

Парадигма целостности вещественной и информационной реальности как платформа современной постнеклассической науки, представляет собой интерес для обновления рационального мышления. Междисциплинарное и трансдисциплинарное знание в этом процессе занимают особое место и представляют собой отдельный интерес, поскольку они определяют ценности нового социального уклада и направляют применение научных критериев и эталонов к технологизации общества. Анализируются подходы к дисциплинарной организации знания, её эвристическому потенциалу, проблемности и преимуществ. Формулируется новое понятие междисциплинарности как нового порядка организации знания, отличающегося от порядка дисциплинарности большим количеством степеней свободы, интегративных тенденций и проблемной ориентированности. Определяется стратегическое место философского познания в рациональной систематизации знаний, аккумулированных социогуманитарными и естественными науками, сопряженного с представленностью образа человека и постнеклассическими образцами понимания причинности событий. Онтологический проект современности формируется через принцип взаимодополнительности знаний, меняющий культурный контекст научной рациональности. Современные гибридные и смешанные исследования в целях производства знаний нового типа реализуются в поле трансдисциплинарности как очередной формы организации познания. Она выступает в качестве интегратора разноплановых исследований в целостность и в качестве генеративного потенциала их развития.

Ключевые слова: мультидисциплинарность, трансдисциплинарность, рациональность.

Multidisciplinarity and transdisciplinarity in forming of new rationality

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Abstract

The paradigm of the integrity of real and information reality as a platform of modern post-classical science is of interest for updating rational thinking. Interdisciplinary and transdisciplinary knowledge in this process occupies a special place and is of separate interest, as since they determine the values of a new social way and guide the application of scientific criteria and standards to the technological development of society. Approaches to disciplinary organization of knowledge, its heuristic potential, problems and advantages are analyzed. A new concept of interdisciplinary is formulated as a new order of organization of knowledge, which differs from the order of discipline in a large number of degrees of freedom, integrative trends and problematic orientation. It determines the strategic place of philosophical cognition in the rational systematization of knowledge accumulated by the sociohumanitary and natural sciences, associated with the representation of the image of a man and post-non-classical models of understanding the causality of events. The ontological project of our time is formed through the principle of complementarity of knowledge, which changes the cultural context of scientific rationality. Modern hybrid and mixed studies for the production of new type of knowledge are implemented in the field of transdisciplinary as another form of organization of knowledge. It acts as an integrator of diverse studies into integrity and as a generative potential for their development.

Key words: multidisciplinarity, transdisciplinarity, rationality.

In the situation of periodic updating of paradigms in science, the problem of the general meta-direction of knowledge is relevant. Its essence is effectively investigated with the methodological participation of philosophical knowledge as integrating and coordinating cognition in general. At the same time, it is important to explore both the technological component of the development of society and science as a social institution at the same time. In connection with the parameters of information, its quality, the established patterns of the information structure of society associated with its value-cultural component undergo active changes. In the formation of values of the seventh technological way, their rational basis is associated with multidisciplinary and transdisciplinary, and is determined by them.

Interest in the disciplinary organization of science in the 50s. XX century for the purposes of intra-scientific communication and control. Disciplinarization in European culture and science since the XVIII century. took place using scientific criteria and standards in the direction of technologization. With the complication of research tools and an increase in the volume of information, science is differentiated and structured as a set of complexes. At the same time, professional stereotyping of cognitive activity occurs, impeding heuristics and innovation. By the beginning of the XXI century interdisciplinary interpretation is in different ways.

Actually, interdisciplinary is studied today at the conceptual level, an assessment of its heuristic potential [3], the advantages and problematic application is given.

So, interdisciplinary is considered in the frameworks of two main approaches. According to the first, interdisciplinary is understood as the interaction of two or more scientific disciplines, each of which has its own subject, terminology and research methods. Such interaction is implemented in the form of working on specific research projects, creating interdisciplinary centers under academic organizations, holding interdisciplinary conferences, publishing problematic, and not disciplinary-oriented journals. The second approach to interdisciplinary approach involves identifying those areas of knowledge that are not explored by existing scientific disciplines. The prefix

"multi" indicates the presence of a certain gap between disciplines, a free field that is not a traditional object of study of any of the disciplines. In this case, a new one may arise at the junction of scientific disciplines [3]. The evolution of its conceptual base with the unambiguity of terminology and its critical use in this case will take a certain time. Our definition of interdisciplinary is thus made up of the fact that interdisciplinary is a new order of organization of knowledge, differing from the order of disciplinary by a large number of degrees.

Rational systematization of knowledge accumulated by sociohumanitary and natural sciences [1; 5, p. 3] occurs through philosophical cognition [6, p. 5]. In this regard, the actual need to define the concept of interdisciplinary was formed.

In the science of modern times, the latter involves the representation of the image of a man [6, p. 101], and with post-non-classical models of understanding the causality of events.

During development of the uniform strategy of development for society the development of disciplinary approaches joins economists [7], sociologists [4; 8; 9], physicians [10; 15]. Their work coordinates the components connecting the event plane of historical, social, technical, cultural and economic processes, as well as their interval. In all these studies, the factor of humanization of personality in social development and new thinking is present as key [7]. A new concrete-historical rationality as a feature of human thinking is formed in the ontological project of modernity on the principle of complementarity of knowledge. It consists in a reception with various types of rationality - formal, substantive and other, integrated into the worldview with its really action potentions [6, c. 10]. In the cultural context, scientific rationality is present as the sum of methods and a value position that determines the choice of tools for the study of personality.

For the philosophical study of such instrumentality, the key point is that things are used in the process of human activity to manage our lives and to control the environment. In this regard, in the socio-philosophical context there are instrumental and productive measurements of technologies.

This is important for combining philosophical and methodological guidelines according to the rational foundations of the tradition of instrumental and productive approaches. In conditions of active replacement of physicalist thinking with digital thinking [1, p. 229] analysis of the instrumental essence of technology, the origins of a man-made society that forms the global technosphere, as well as the communication of subjects, leads to assessments of virtual reality and its structures, primarily the reality of nature, and a man, as a supra-organic part of it.

Rationality and its foundations in various fields of science are ensured by the stability of the initial cognitive structure, which underlies the specific direction of knowledge.

The stability of the combined architectonics of the worldview concept acts in science as the highest value, exceeding the values of the gnoseological series. The value aspect of ideology confirms the thesis that the mastery of the world (its internal component) proceeds both through the process of knowledge and through other mechanisms.

The instrumental dimension of technologies is investigated in the direction of knowledge of the nature of the higher sense of orientation of an active social subject, the foundations of its values [12] and a worldview in which the study of the nature of cognitive processes occupies a leading place.

The implementation of modern hybrid and mixed research in the aims to produce a new type of cognition proceeds in the field of transdisciplinary.

The genesis of transdisciplinary knowledge and the general idea of it has been investigated as a phenomenon of the through transfer of cognitive schemes from one disciplinary field to another [1, p. 220-221; 2, p. 194]. This is followed by the subsequent project cooperation of research.

As the basis of the process, the intra-disciplinary "thinking style"[11] is distinguished, which, with its ontological "expansion"[13, p. 2-3], performs the function of an integrator of diverse studies into integrity. The phenomenal nature of the latter corresponds to the nature of transdisciplinary due to their essential openness, nonlinear character and generative potential.

In modern science, descriptions of four types of transdisciplinary [14] have developed.

Thus, transdisciplinary-1, as the most general form, is based on the efforts of the formal interconnection of the concepts of individual disciplines. It provides logical metarams by which their knowledge can be integrated at a higher level of abstraction than does the field of interdisciplinary. Transdisciplinary-1 is technologically used in the work of expert systems and expert groups and is more closely related to subjective research experience.

Both types of trans-discipline contrast with other types of trans-discipline. For example, the illustrative use of metaphor and figurative language can be considered as the initial form of transdisciplinary (transdisciplinary-0). In this, its difference from another type of transdisciplinary (transdisciplinary-3), associated with the use of general metaphors of fundamental cognitive significance.

The peculiarity of trans- and interdisciplinary approaches is in the presence of a direct transfer of research methods from one science to another, which is due to the discovery of analogies in the studied subject areas. As a result, interdisciplinary areas are formed that use an interdisciplinary approach (binary (double) disciplines are organized on this principle: biotechnology, biochemistry, biomechanics, sociobiology, bionics and others).

The paradigm of integrity of real and information reality is a platform of modern post-classical science and a general methodology for the holistic study of a man. The idea of his social activity, worldview, values and rationality in the context of global technospheric development is relevant to explore in the field of interdisciplinary and transdisciplinary knowledge. In modern times, the meta-direction of scientific cognition develops precisely with such interaction.

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