

Philosophy of ecology in the context of coevolution of nature and society

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Abstract. Solving of environmental problems in the modern world is impossible without scientifically based knowledge about the system of social-nature interactions. At the same time, the idea of coevolution of man, society and nature is a priority. Ecological knowledge is an integral component of the spiritual mastery of reality. Ecological activities, considered as a praxiological component of culture, have as their main task formation, accumulation, mastering and translation of collective values based on the principles of ecocentrism. A special interest in the functioning of the mechanism of social-nature interaction is determined by the formation of ecology aimed at deepening of its social aspects. This leads to the need for philosophical analysis of the bases and patterns of the formation of ecological knowledge, goals of civilization development and means of their achievement, importance of global processes in social-nature existence, conditions enabling sustainable development.

1 Introduction

At present, it is safe to say that scientific and technological progress contributes to the supplement of information, the body of knowledge of the modern man about the world and its patterns. However, the existence of an enormous amount of such knowledge is very ambiguously for the development of social-nature existence. On the one hand, it is certainly the basis for various kinds of social practices, creation of adequate social and natural ties, on the other hand it creates destabilizing factors of existence of global civilization, environmental problems. In fact, this poses to modern researchers the main theoretical and practical issues about epistemological and value aspects of key attitudes of knowledge accumulated in the process of historical development.

One of the pressing scientific tasks today is the development of an integrative approach in the use of methodology that constitutes the basis of ecological knowledge. Modern ecological knowledge is aimed at identifying systemic connections and interdependence in the structure of social-nature existence. Currently, the number of scientific directions in ecology is more than a hundred. In addition, in other types of knowledge, such as

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anthropology, cultural studies, pedagogy, sociology, economics, law, there are also ecological aspects that require understanding and interpretation.

2 Methods of research

The issues of social-nature being in their various manifestations have been considered in the history of philosophy by many philosophers, notably K. Marx, E. Fromm, A. Schweitzer, M. Scheler. In the second half of the twentieth century, when serious industrial and environmental disasters occurred, specialized applied directions of research of interaction between society and nature began to be formed: environmental protection, social ecology, human ecology, medical ecology. Certain aspects of these problems are touched upon in the works of R. I. Girenok, A. M. Gilyarov, A. G. Gulyga, G. A. Novikov, Eu. P. Odum, N. F. Reimers, A. Peccei, V. I. Danilov-Danilyan, N. N. Moiseyev, A. D. Ursul. The researches of V. I. Arnold, I. Z. Kaganovich, N. V. Kartamyshev, A. K. Rychkov, E. N. Konstantinov, N. V. Mikhailovskaya, V. Lenshin, A. D. Ursul are devoted to methodological aspects of transformation of scientific, educational, technical, economic spheres in the context of ecological imperative. To study open, complex, self-organizing systems, to which most natural systems and society belong, A. I. Prigozhin proposes system approach, mathematical modeling, system analysis and probability theory, stochastic and statistical scientific methods [1]. N. N. Moiseyev applies these methods and approaches in the development of "systemic ecology," in the introduction of the concept of "environmental imperative" and in the justification of "environmental feedback"; N. F. Reimers applies them to identify patterns and to create the classification of environmental and eco-social laws. Thanks to the research of O. N. Yanitski in the national science, the sociology of "green" movements was developed.

On the basis of a brief analysis of the degree of scientific development of the problem, it can be affirmed that, with a sufficient number of scientific papers on environmental topics, the problems of integrating of the results of knowledge obtained within the framework of environmental disciplines are not sufficiently developed. It can be both a comparative analysis of the results of research in the field of social-nature interaction and a theoretical generalization of key ecological knowledge. Consequently, comprehensive integration of ecological knowledge into the complete holistic doctrine which can become a basis of a new scientific picture of the world, based on ecological values is represented relevant.

3 Results of the research

Today's ecological knowledge is an inseparable essential feature of modern society, in addition, it is the basis of social and natural interaction. It is intended to reflect the whole diversity of the universe and cognitive methods, to link parts and blocks of knowledge into the holistic system. However, at present in ecological knowledge the predominantly classical disciplinary approach is used, and the scientific content of rationalist and natural science is clearly revealed in it. It can be affirmed that methodological approaches only within the boundaries of naturalistic, mechanistic and scenic attitudes applied to the study of the problem of integrating ecological knowledge into the new scientific picture of the world no longer seem universal at present, as they do not cover the whole set of tasks of multilateral systemic and structural interaction. This problem field contains a lot of very difficult aspects, discussion questions. At the same time, modern social, cultural, scientific and technological development creates new philosophical tasks and defines new possible boundaries of knowledge.

It is necessary to note ontological, gnoseological, methodological, axiological beginnings which form the system of holistic non-contradictory ecological knowledge [2].

As the initial provisions of ontological beginnings of ecological knowledge we consider the system "man – nature – society". The socio-ecological sphere of social existence can be imagined using such concepts as ecological being, ecological reality, ecological consciousness. The ontological aspect of ecological knowledge reflects not only nature and society in themselves, but also their interrelationship and interdependence. It should be noted that the objective basis of social interaction is switching from the forms and levels of natural system to the forms and types of social existence. At the same time, in the process of complex interaction between them, a qualitatively different social-nature system is created. All evolutionary changes occurring in the universe can be considered as a single process of self-organization of all things, which corresponds to common fundamental patterns and takes place in a holistic multidimensional ontological space.

Objects of scientific knowledge in the field of ecology are structural levels of wildlife, from organic, including species, populational, biocenosis, biogeocenosis, to biosphere. In addition, this includes other natural systems changed during the life of society. The ontological aspects of ecological knowledge consider the spatial and temporal characteristics of ecological systems in the natural and sociocultural environment, as well as their characteristic forms of movement. In objective ecological reality, the special form of substance movement, ecological, is positioned. Its material carriers are the elements of a variety of complex organized structural levels of the Earth's biosphere and eco-sociosphere, as a part of systemic unity. The current theory of socio-ecological determinism indicates that the source of the ecological form of movement is the antagonism inherent in social and natural factors.

The gnoseological beginnings of ecological knowledge primarily dictate the need to define its subject-object space, that will allow to show the feature of this field of scientific knowledge more accurately. From the general gnoseological positions, the subject of knowledge is determined by the object and represents its side fixed in the established sign-symbol form. It should be noted, however, that there is no single interpretation of the subject of ecological knowledge. Ecological knowledge is directed to the man in his relations with nature, sociocultural and techno-technological subsystems of society, biosphere and its connection with general planetary, world and industrial processes, society and its patterns (or patterns of some its parts) of interaction with the environment. It can be affirmed that in social-nature systems, undoubtedly complex systems, the vector of problem activity, rather than a single object, determines the principles and methods of scientific research.

In order to form and consistently improve theoretical environmental models and to develop on this scientific basis more adequate management and correction of interactions between man and social systems in modern science new philosophical-systemic approaches are created, among which the significant place belongs to methodology of formation of systemic scientific ecological knowledge.

From this point of view, the priorities, in our opinion, are universal evolutionism, general theory of self-organization (synergetics), social synergetics, theory of developing systems [3]. Thus, the concept of universal evolutionism provides an opportunity to consider organic and social substance in dialectical unity, as well as to introduce inorganic substance into the single context of the changing world. Universal evolutionism allows to choose a human as an object of cosmic evolution. At this natural stage of existence of our Universe, it is the man who becomes responsible for the state of the world of which he is a part. It can be stated that today in science, in the process of generalizing of available knowledge, the principles of universal evolutionism prevail, which is the core idea

characteristic of all available scientific worldviews. Such idea is the basis for the creation of a single, holistic, popular scientific worldview, in which human beings have a key place.

Today the general theory of self-organization (synergetics) has proved its popular scientific significance undoubtedly. The use of ideas and conceptual apparatus of synergetics in the research field of various sciences led to a qualitative change in the key positions of modern knowledge. The world as a whole and the processes of evolution in terms of synergetics are considered and understood differently in comparison with classical approaches in science.

Synergetics was created as an effective tool for systemic research of the world in all its connections and interdependence, principles of mutual conditions of phenomena and processes. The application of a synergetic approach for the consideration of natural and social processes in their interrelationship confirms the rectitude of V. I. Vernadsky that all observed phenomena have causal relationships [4]. Studying of such connections and identifying of the place and of the role of the man during natural self-organization is the primary task of scientific knowledge of the current period of development, which is characterized by the increase of disequilibrium, which multiplies number and intensity of unstable states, bifurcation. As a result, it is this condition that threatens the progressive sustainable development of mankind.

Social synergetics is considered as a completely independent direction in social and humanitarian knowledge. It is the result of the spread of ideas and meanings of synergetics to the sphere of sciences about man, society and culture, for example, such as psychology, linguistics, sociology, economics, history, ethnography, cultural studies, etc.

The significant place in theoretical ecological knowledge belongs to the picture of ecological reality, which is a generalization of ecological knowledge of a high degree, a synthesis of its fundamental, generic concepts and principles.

In terms of methodology, the picture of ecological reality conditions environmental thinking, ideology, programming code and strategic planning in the organizational and managerial activities of mankind in relation to nature. The picture of ecological reality links philosophy and ecology, provides an opportunity to give the correct assessment of ecological sciences in the aggregate system of scientific knowledge. The degree of elaboration and reflection of the picture of environmental reality has a direct impact on the level of environmental protection and of improvement of environmental management, as it focuses on the creation of a proportionate strategy and a programme of actions.

The important factor in the conditions of constant increase and growth of bundle of knowledge is a formation of philosophy of ecology. This is reflected in the expansion of the field of activity of science, in the emergence of new ideas about the world, of new problematic researches. The identification and establishment of the main groups of environmental philosophy issues in the axiological system of modern culture and the creation of a single space of knowledge based on them is one of the essential tasks of the emerging areas of new knowledge. Significant vectors of the development of the problematic field of philosophy of ecology, in our opinion, are the substantive, analytical and normative orientation.

The substantive direction is represented by the ecological reality, its structure, connections, interaction and direction of progressive development, that constitutes the ontological aspect of the content of the subject of philosophy of ecology in the worldview, cultural and scientific paradigm emerging today.

Analytical direction considers issues of rational and irrational knowledge of social-nature being, introduces key definitions and defines theoretical principles of formation of ecological knowledge, expressing the gnoseological aspect of content of the subject of philosophy of ecology.

The normative direction covers problems of selection of certain samples and models in knowledge, of possible directions of research in modern philosophy of ecology, prognostic aspects about prospects of existence of organic substance and its states, evaluation of the process of evolution. In this direction descriptive researches (what they are) are complemented with prescriptive provisions (what they have to be). In fact, the whole problem of projective philosophy is reflected here. It is inherent, for example, in Russian cosmism and its followers (from noosphere teaching to the concept of ecological production). These ideas recreate the attitudes of modern reality that affect the coevolution of nature and society. They are defined by conscious and projective human activities aimed at preserving of the living conditions necessary for the current living substance of biosphere as a whole, including humans.

Coevolution at the present stage is interpreted as a further cumulative development of society and nature as interdependent but different ways of self-reproducing of life in biosphere. Coevolution involves effective modification of communication technologies and systems, large-scale waste disposal, a system of closed production cycles, environmental observation for the purpose of verification or supervision of planning, broadcasting of principles of environmental ethics. The problem of coevolution of nature, man and society has a substantial independent methodological and scientific content, and, in addition, often corresponds to a new paradigm of civilizational development [5].

Given that the content of philosophy of ecology is represented by two levels: first, fundamental, second, applied, it is possible to consider them independent. The fundamental level is the philosophical reflexion over life, the study of its origin, the determination of place and meaning in the Universum, the possible prospects of the future. In this case, there is a theoretical connection between philosophy of ecology and philosophy of science and natural science [6]. The applied level evidences the material-practical and aesthetic attitude towards wildlife. Here philosophy of ecology goes beyond the fundamental knowledge into the field of concrete desobjectivation and objectification, in other words, to the level of empirical and ordinary knowledge, to the level of implementation in public practice.

For a long time, philosophy of ecology had been developing separately from applied research. At present there is a course towards their mutual convergence and enrichment. In the human mind, the idea of the inextricable integrity of social and natural existence, of their interrelationship and interdependence is formed. Therefore, it is necessary to use in practical social activity knowledge of theoretical beginnings of life and to take into account the specifics of living substance existence as a biogenic basis of biosphere formation, its development and probable degree of coevolution development of society and nature. The result of this process will be the formation of the worldview based on the idea of the significance and self-worth of life, human commonality and wildlife. Since the basis of such commonality is the genetic commonality of the living substance of biosphere of the planet, the bodily organization thanks to which the organic entry of the man into biosphere, into the universe as a whole takes place, one of the problems of the applied philosophy of ecology is the study of human body, the development of personal ideas about it, the disclosure of biological and social features of the world perception [7-8].

The value study of the goals, tasks and ideas of philosophy of ecology includes a wide range of probable estimates of the future of life and of the directions of its development from life-affirming to hopeless. This is necessary because there is a real transformation of both internal biogenetic and external bioecological and physical-chemical constants in the universe.

All the noted directions of the study correspond to the functions of philosophy of ecology:

– Gnoseological function of philosophy of ecology consists in the analysis of structure of philosophical knowledge in ecology, of methods and mechanisms of their acquisition, accumulation and updating, disclosure of features of connections "subject – object" and "subject – subject" in the course of formation of knowledge of uniform social-nature life.

– Predictive function is connected with identification of prospects of evolution of life; with the development of biotechnological and techno-technological bases for civilizational development.

– Design and methodological function of philosophy of ecology corresponds to the social and practical needs of people, first of all ecological and esthetic, in other words, to the solution of the problem of an exit from ecological crisis supported by the appropriate philosophical, scientific, political, economic, educational target programs.

4 Conclusion

With the transition of civilization to the new stage of development and with the emergence of global problems, the dominant philosophical outlook causes intellectual dissatisfaction, which gains the other meaning in the existing reality. At present, the absence of a worldview that corresponds to the practical reality of the existence of civilization is dangerous not only by all kinds of social and environmental problems, by the intensification of the crisis of the social system, by the fall of morality, but also by the threat of destroying the species of Homo Sapiens and all the unique natural phenomenon of planetary biosphere.

The establishment of philosophy of ecology should become a starting point in the further expansion and deepening of complex interdisciplinary research, in the strengthening of attention to the ecological component of worldview and world perception, to the creative processing of old scientific constructions and to the justification of new scientific constructions, in the identification of the role of ecology in the formation of a new worldview paradigm. Multilateral development of present and other problems of philosophy of ecology is a rather large problematic field for research. The creative activity of scientists can be a proper response of philosophy to the challenge of the era and can turn philosophy of ecology in the modern situation of bifurcation of the planetary whole into the factor of realization of an effective strategy of coevolution development of nature and society, into the theoretical basis of practical realization of unlimited coexistence of biosphere and mankind in the Universe [2, 9].

The synthesis of philosophy and ecology contributes to significant changes in dominant worldview positions. The fundamental principles of modern ecological knowledge create the basis and structure of thinking in conditions of transformation of the system "man – nature – society" [10]. The interests of modern ecological science and philosophy of ecology are aimed at solving the problem of the coevolution of man, society and nature.

The feature of modern ecological knowledge is that having emerged as pragmatic means of studying the influence of man on nature, it becomes ethical, comprehensive, worldview [12].

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