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Холистический принцип в экофилософии и биоэтике: сравнительно-аналитический аспект

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Аннотация. Цель исследования заключается в выявлении общих оснований и отличительных черт холистического принципа в экофилософии и биоэтике, демонстрируя их роль в качестве концептуальной основы этики выживания и устойчивого развития в контексте глобальных вызовов XXI века. В статье анализируется холистический подход как методологическая и мировоззренческая основа современной экофилософии и биоэтики. Особое внимание уделяется связи холизма с концепциями целостности, системности и взаимозависимости человека, природы и культуры. Показано, что холизм в биоэтике позволяет выйти за пределы индивидуалистического понимания медицинской морали и расширить предмет биоэтического анализа до уровня биосферы и планетарной ответственности. Рассматриваются примеры философских интерпретаций и практических приложений холизма в экологической и медицинской сферах. Научная новизна заключается в показе того, что холизм одновременно функционирует как онтологическое основание экофилософии и как нормативный каркас глобальной биоэтики, объединяя естественные науки, медицину и гуманитарные дисциплины. Результаты исследования показывают, что экофилософский холизм акцентирует внимание на онтологическом единстве природы и взаимосвязанности биосферы и ноосферы, в то время как биоэтический холизм подчеркивает нормативную интеграцию медицинских, социальных и экологических ценностей, распространяя этическую рефлексию за пределы индивидуальной медицинской практики к глобальным контекстам. Несмотря на различия, оба подхода сходятся в отказе от редукционизма и формировании парадигмы холистического мышления, которая обеспечивает концептуальную основу для устойчивого развития и позиционирует биоэтику как «этику выживания» XXI века.

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Holistic principle in ecophilosophy and bioethics: comparative and analytical aspect

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Abstract. The aim of the study is to identify the common foundations and distinctive features of the holistic principle in ecophilosophy and bioethics, demonstrating their role as a conceptual basis for the ethics of survival and sustainable development in the context of the global challenges of the 21st century. The article analyzes the holistic approach as a methodological and worldview foundation of contemporary ecophilosophy and bioethics. Special attention is given to the connection of holism with the concepts of integrity, systemicity, and the interdependence of humans, nature, and culture. It is shown that holism in bioethics makes it possible to go beyond the individualistic understanding of medical morality and to expand the scope of bioethical analysis to the level of the biosphere and planetary responsibility. The article examines examples of philosophical interpretations and practical applications of holism in ecological and medical contexts. The scientific novelty lies in demonstrating how holism simultaneously functions as an ontological basis for ecophilosophy and as a normative framework for global bioethics, bridging natural sciences, medicine, and the humanities. The findings show that ecophilosophical holism highlights the ontological unity of nature and the interconnectedness of the biosphere and noosphere, while bioethical holism emphasizes the normative integration of medical, social, and ecological values, extending ethical reflection beyond individual medical practice to global contexts. Despite their differences, both approaches converge in rejecting reductionism and fostering a paradigm of holistic thinking, which provides a conceptual foundation for sustainable development and positions bioethics as an “ethics of survival” for the 21st century.

Introduction

Modern ecological and biomedical challenges, including primarily environmental degradation, global climate change, biotechnological experiments, and the expanding use of artificial intelligence in medicine, require a rethinking of the ethical foundations of humanity's relationship with life. Bioethics, which emerged in the 1970s, was initially focused on problems in medicine and biomedical technologies. However, in the 21st century, the need to expand its scope to a global scale has become evident.

Research relevance. One of the most promising directions in this regard is the holistic approach, based on the philosophy of wholeness. Its significance lies in the effort to unify the individual and the universal, the local and the planetary, as well as the humanities and natural sciences.

To achieve the aim, the study sets out the following research objectives:

- 1) to conduct a comparative analysis of the interpretations of holism in ecophilosophy and bioethics, identifying shared methodological foundations and divergent emphases;
- 2) to assess the practical significance of the holistic approach for addressing contemporary ecological and bioethical challenges.

The theoretical basis of this study is founded on works that substantiate the philosophical and scientific development of the concept of holism as a principle of integrity, interconnection, and systemic unity. From the standpoint of classical philosophy of wholeness, the study draws on the works of Aristotle, B. Spinoza (Спиноза, 2025), and G. Leibniz (Лейбниц, 2018); from the perspective of the philosophy of science and phenomenology – on the ideas of T. Kuhn (Кун, 2014), M. Heidegger (Хайдеггер, 1997), and E. Husserl (Гуссерль, 2001). The analysis of ecophilosophical foundations of holism is widely represented in the research of A. Næss (Нэсс, Мейляндер, 2013) and E. V. Barkova (Баркова, 2005), while the bioethical approach to holism is elaborated in the works of V. R. Potter (1970), B. G. Yudin (Юдин, 2018), and I. T. Frolov (Фролов, 2007).

The study employs the following research methods: historical-philosophical analysis – to explore the genesis of the idea of holism from antiquity to the 21st century; comparative-analytical method – to juxtapose ecophilosophical and bioethical interpretations of holism; systemic approach – to identify interconnections between natural, social, and cultural dimensions of holism; hermeneutical method – to interpret classical and contemporary philosophical texts; axiological analysis – to uncover the value-based foundations of holistic thinking in ecophilosophy and bioethics.

The practical significance of this research lies in demonstrating how the holistic principle can serve as a methodological and normative framework for addressing pressing ecological and biomedical challenges of the 21st century. The study shows that the holistic paradigm promotes interdisciplinary integration of natural sciences, medicine, and the humanities, enabling more comprehensive approaches to ecological medicine, biotechnological regulation, and the ethical governance of emerging technologies such as artificial intelligence and neurotechnologies. Thus, the findings can be applied both in theoretical contexts – through the refinement of philosophical and ethical frameworks – and in practical contexts, such as environmental policy, medical education, and the formation of international standards for bioethical regulation.

Discussion and results

The term “holism” (from Greek “holos”, meaning “whole or complete”) was introduced by the South African philosopher Jan Christian Smuts (1926) in his work *Holism and Evolution*. He considered wholeness a fundamental principle of the organization of the world, arguing that evolution leads not only to increased complexity but also to the integration of elements into new, higher-order wholes.

The origins of the holistic worldview can be traced back to ancient philosophy. Aristotle already expressed the idea of a whole that surpasses the sum of its parts. In the modern era, similar ideas appeared in the works of B. Spinoza (Спиноза, 2025), who asserted the substantial unity of nature, and Gottfried Wilhelm Leibniz, who introduced the notion of “monadological wholeness” (Лейбниц, 2018).

In the 19th–20th centuries, holism developed in natural science theories:

- in biology, through the works of Alexander von Humboldt, Ernst Haeckel, and later Ludwig von Bertalanffy, who developed general systems theory, understanding the whole as an open, dynamic system;
- in ecology, through the works of Eugene Odum and Ernst Haeckel, who formulated a systemic understanding of the ecosphere;
- in the philosophy of science, through W. V. O. Quine (“ontological holism”) (Ишутин, 2018) and Thomas Kuhn (holism of scientific paradigms) (Кун, 2014).

Philosophical holism was significantly influenced by Edmund Husserl (Гуссерль, 2001), emphasizing the unity of the life-world, and Martin Heidegger, who viewed humans as “being-in-the-world,” inextricably integrated into the wholeness of being (Хайдеггер, 1997).

In the second half of the 20th century, holistic ideas penetrated ecological philosophy and bioethics. Arne Næss, in his deep ecology, insisted on the equal value of all forms of life and the necessity of considering ecosystems as holistic entities. In the Russian tradition, similar ideas were developed by V. I. Vernadsky, who introduced the concept of the noosphere as the highest stage of the biosphere's evolution, where humans become an integral element of the planetary system (Вернадский, 2013; Нэсс, Мейляндер, 2013).

In bioethics, the holistic approach was proposed by Van Rensselaer Potter (1970), who in his book *Bioethics: Bridge to the Future* linked ethics with biology, advocating a holistic view of humanity's survival challenges. Later, Tom Beauchamp and James Childress, within the framework of principlism, proposed normative foundations for bioethics (Игнатъев, 1997). However, it was the critics of reductionism in medicine, such as Hans Jonas, who helped establish holism as an alternative approach emphasizing global responsibility (Йонас, 2004).

Thus, the evolution of holism traces a path from philosophical concepts of wholeness (Aristotle, Spinoza, Leibniz) through scientific systems theories (Bertalanffy, Haeckel, Vernadsky) to ethical-ecological and bioethical practices (Potter, Næss, Jonas). Today, holism functions not only as a methodological principle but also as a foundation for forming new ethical paradigms in the context of 21st-century global challenges.

Currently, holism as a principle of thinking manifests across various fields of philosophy, though its interpretation in ecophilosophy and bioethics has both common features and significant differences.

In ecophilosophy, holism is based on the understanding of nature as a self-organizing whole, where humans occupy not a dominant but an integral place. The central principle is the interconnectedness of all levels of existence, from the biosphere to the noosphere. In the Russian tradition, this is reflected in Vernadsky's concept of the noosphere. He considered the biosphere as a holistic system in which human intellect and activity become planetary-scale factors: "Man is a powerful geological force, and he faces the question of restructuring the biosphere in the interests of freely thinking humanity as a single whole" (Вернадский, 2013, p. 300).

Contemporary Russian scholars, such as E. V. Barkova, have developed these ideas, emphasizing the necessity of a holistic approach to global problems. Barkova writes: "The future of humanity depends on the ability to think in terms of planetary wholeness," and she notes that "the fruitful search for a new philosophy and its methodology can be carried out on the basis of ecophilosophical holism and its types of understanding wholeness, revealing universal connections between the process of self-development and the structure of the space-time continuum of nature-culture" (Баркова, 2005, p. 145-147). Thus, ecophilosophical holism forms the basis for an ethics of responsibility toward nature and future generations.

Bioethical holism emphasizes the interconnection of individual health, society, and the biosphere. While classical medical bioethics focuses on the patient-physician relationship, the holistic approach broadens the framework to global biotechnological and ecological challenges. Potter, the founder of global bioethics, wrote: "The survival of humanity depends on the formation of a new ethics that combines biological knowledge and human values" (1970, p. 127). His concept requires consideration of not only biomedical but also ecological, social, and cultural factors.

The development of bioethical holism in Russia is associated with I. T. Frolov and B. G. Yudin, who highlighted that the very term "bioethics," from the Greek roots, literally means "ethics of life," and that Russian philosophical scholars developed several promising approaches to global and integrative bioethics, extending beyond purely medical research (Фролов, 2007; Юдин, 2018). Similar ideas were advanced by Yu. M. Khrustalev, O. V. Tkachenko, and P. D. Tishchenko, who stressed that bioethics should be considered not only a medical discipline but also part of a global philosophical discourse (Хрусталеv, Ткаченко, 2014; Тищенко, 2022). Thus, contemporary bioethics in the context of technological civilization inevitably acquires a holistic character, as it requires understanding humans as elements of the ecosystem.

Medical bioethics traditionally relied on principlism and casuistry, often focusing on individual cases and patient rights. Holism in bioethics broadens the analytical scope:

- from individual to systemic: human health is understood in the context of ecology, social environment, and lifestyle;
- from anthropocentrism to planetary responsibility: ethical decisions must consider consequences for future generations and ecosystems;
- from technology to culture: addressing bioethical issues requires integrating humanities, philosophy, and culture into medical practice (Измайлова, 2023).

An example of the holistic approach is Potter's concept of bioethics as the "science of survival," uniting biology and humanism. Contemporary researchers emphasize the need for a systemic analysis of bioethical problems in the context of global crises (Юдин, 2018; Хрусталеv, Ткаченко, 2014; Тищенко, 2022).

While ecophilosophical holism emphasizes the ontological wholeness of nature, bioethical holism manifests in the normative integration of values – medical, social, and ecological. Ecophilosophical holism focuses on preserving planetary existence, whereas bioethical holism regulates human, societal, and biospheric relationships through norms and principles.

Both approaches converge in a key principle: the necessity of moving from reductionism to holistic thinking. Contemporary philosophy faces the challenge of integrating heterogeneous forms of knowledge within a holistic anthropology, directly related to ecology and bioethics. Holism in ecophilosophy and bioethics thus serves a similar methodological function – it establishes a paradigm of holistic thinking that allows the integration of natural, social, and cultural dimensions into a single philosophical system.

To illustrate the similarities and differences of the holistic approach in ecophilosophy and bioethics, Table 1 presents a comparative analysis.

It is evident that despite shared methodological foundations, holism in bioethics and ecophilosophy manifests in different aspects. Ecophilosophical holism emphasizes the value of nature and the wholeness of the biosphere, whereas bioethical holism is used to analyze systemic consequences of biomedical and technological practices. Ecophilosophical holism forms an ontological and axiological basis for understanding humans as part of nature, while bioethical holism serves a normative-practical function, establishing moral responsibility for life in all its forms.

Table 1. Comparative characteristics of holism in ecophilosophy and bioethics

Criterion	Ecophilosophy	Bioethics
Ontological basis	Nature as a self-organizing whole; biosphere and noosphere as a single existence	Human and human health in the context of society, culture, and the biosphere
Goal	Preservation and harmonization of human-nature relationships; prevention of ecological crises	Development of norms and principles regulating biomedical and ecological practices
Methodological principle	Recognition of wholeness and interconnectedness of all levels of existence (from individual to planetary)	Integration of biological, medical, social, and cultural values within ethics
Emphasis	Ontology and cosmology: the world as a whole	Ethics and normativity: regulation of practices and technologies
Russian researchers	V. I. Vernadsky, N. N. Moiseev, E. V. Barkova	B. G. Yudin, V. M. Khrustalev, P. D. Tishchenko
Practical significance	Formation of ecological worldview and culture of responsibility for the planet	Development of bioethical principles in the context of medicine, biotechnology, and ecology

Practical applications of the holistic approach include:

- ecological medicine: treating humans considering environmental factors (air, water, nutrition, social climate);
- psychoecology and nature-based therapy: using natural factors in psychological and medical rehabilitation;
- sustainable development: forming policies that balance human and biospheric interests;
- ethical regulation of technologies: gene engineering, AI in medicine, and neurotechnologies should be evaluated in terms of systemic consequences.

Conclusion

The holistic approach in ecophilosophy and bioethics opens new horizons for understanding humans and nature as an integrated whole. It overcomes the limitations of reductionist and narrowly pragmatic models, forming a worldview oriented toward sustainable development and the preservation of life in its diversity.

In the context of global ecological challenges and technological risks, holism becomes not only a philosophical concept but also a practical strategy requiring the integration of science, culture, and ethics. Bioethics, in this understanding, is not merely a medical discipline but the “ethics of humanity’s survival” in the 21st century.

Future research on holism in ecophilosophy and bioethics should focus on several interrelated directions. First, theoretical work is needed to clarify the philosophical foundations of holism and its relation to systems theory, complexity studies, and the philosophy of science. Second, interdisciplinary applications deserve closer examination, particularly the role of holistic approaches in ecological medicine, biotechnological innovations, and the ethical governance of artificial intelligence and neurotechnologies. Third, research should address the practical and normative implications of holism by developing ethical models that combine ecological responsibility, social justice, and intergenerational solidarity. Finally, further studies could explore the potential of holism to serve as the basis for a new global paradigm – an “ethics of survival” – capable of unifying fragmented domains of knowledge and guiding humanity toward sustainable coexistence with the biosphere.

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