

THE ROLE OF INTERDISCIPLINARY APPROACHES IN ESTABLISHMENT OF CONTEMPORARY SCIENTIFIC MODEL OF THE WORLD

The article analyzes the ideological role of interactive science capacity, which is that it defines the style of modern scientific and rational thought in general, considering that under the influence of postmodern theories subjectivism and relativism are currently spreading. At different historical stages interdisciplinary research took on forms which ensure the integrity of the scientific world, evolving from an encyclopedic cummulativism of classical science to modern methodological pluralism. In this regard, it becomes more important to determine interdisciplinary approaches that play a vital role in constantly updated scientific world picture. Keywords: science, interdisciplinary, scientific world picture, synergetic.

The transition from classical to contemporary science determined the overview of value dimensions. They are known as human dimension defined objectives and standards. Dominant axiological approach to the phenomenon of science is one of the distinctive features of its interpretation in today's technological and information revolution [1]. Today the search for scientific truth is accompanied by axiological imperatives.

A fundamental feature of science, as conceived by most scientists, is that it deals with facts, not values. Further, science is objective, while values are not. These benchmarks can offer great comfort to scientists, who often see themselves as working in the privileged domain of certain and permanent knowledge. Such views of science are also closely allied in the public sphere with the authority of scientists and the powerful imprimatur of evidence as "scientific". Recently, however, sociologists of science, among others, have challenged the notion of science as value-free and thereby raised questions--especially important for emerging scientists--about the authority of science and its methods.

Contemporary, also known as post-non-classical, worldview transformation of science as an element of contemporary culture and related relevant picture of the world is inseparable from understanding the value dimensions of recognizable image of reality. The perception of being in the light of contemporary science represents, firstly, the logic of the modern understanding of reality, and secondly, the essence of "axiological shift" in interpreting the scientific world, which boils down to overcoming guidance on values neutrality and strengthening human dimensional universe as an organic whole.

The common characterization of science as value-free or value-neutral can be misleading. Scientists strongly disvalue fraud, error and "pseudoscience", for example. At the same time, scientists typically value reliability, testability, accuracy, precision, generality, simplicity of concepts and heuristic power. Scientists also value novelty, exemplified in the professional credit given for significant new discoveries (prestige among peers, eponymous laws, Nobel Prizes, etc.). The pursuit of science as an activity is itself an implicit endorsement of the value of developing knowledge of the material world. While few would tend to disagree with these aims, they can become important in the context of costs and alternative values.

It is often argued that the development of science represents the entire set of values that originate within one system outlook, and later can be revealed in the other system. Therefore an idea that occurs is perceived only in a particular part, that is not realized all of its content. Transformation of science from classical to contemporary changed an understanding associated with the revaluation of certain quality of worldview of science and criteria of scientific approaches. Although it showed the reality is not always clear.

Study of the social dimensions of scientific knowledge encompasses the effects of scientific research on human life and social relations, the effects of social relations and values on scientific research, and the social aspects of inquiry itself. Several factors have combined to make these questions salient to contemporary philosophy of science. These factors include the emergence of social movements, like environmentalism and feminism, critical of mainstream science; concerns about the social effects of science-based technologies; epistemological questions made salient by big science; new trends in the history of science, especially the move away from internalist historiography; anti-normative approaches in the sociology of science; turns in philosophy to naturalism and pragmatism [2].

Despite all efforts and warnings about the thoughtless and careless attitude of humanity toward the use of resources it keeps stating its dominant position. The fact that it [humanity] as a whole no longer

recognizes its universal nature and, as before, spends great material and spiritual resources for mutual rivalry and hostility [5]. This practice devalues human and world relationships and makes a negative impact on their development like losing awareness of the uniqueness and originality of cosmic life. The best way out of the present difficult threatening situation according to scientists is the promotion of basic human values of charity, prudence, justice, fortitude and temperance.

Some researchers point to the still not overcome gap between the humanities and natural sciences, others – to an even deeper division – between science and culture [3]. Therefore the rejection of scientific interpretation model of science and departure from the myth of axiological neutrality in scientific knowledge is emphasized today.

The current stage of the study axiological aspects of knowledge has expanded, contributing to the emergence of new branches in the general theory of values. The main characteristics of values, which are realized through their existential rise: personal meaning, functional load and substantial value. They study the deepening and specification of separate spheres of value relation of man to reality. For example, there were educational, political, psychological, theological axiologies [4, 23]. This points to the relevance and need for further research. In recent years it is often being said that postmodern theory assumes additional functions and fill those niches that are left inside science. The very concept of "knowledge" tends to change. Blurred distinction between everyday human experiences and specialized knowledge, between the subjective and objective processes of the world denotes the relativity of some rigorous standards of science. For example, K.Huebner says that there are no definitive boundaries between true science and true myth. We always interpret the world we live in, whether it is scientific or mythical by perceiving it as the only recognition of reality. It all depends on the reference point, the position of the subject of knowledge subconsciously to the pre-selected values [3, 90]. Moreover, we can speak about a crisis of consciousness in the modern world, growing attraction to religion and especially the deployment of philosophical and metaphysical speculation by actively assimilated into the religious ideas and intellectual-ideological stereotypes.

Analyzing cross-correlation of information both scientific and mystical or religious worldview concepts the attention is drawn to their interconnective dialectics. "Science does not need mysticism, mysticism does not need science, but people need something. Science is indispensable in daily life, religious and mystical perception sensitivity can extend range and achieve a deep understanding of how things work, and their interpenetration, a dynamic sequence creates a new, more adequate perception of the world "[2, 105]. Degree of development of pattern image which is the world model determines the level of maturity of the complex science of man and society, as well as qualitative parameters of the entire system of knowledge and management of social processes

Is it enough to limit the idea of proclamation of integrity, common scientific and ideological worldview? Many researchers say that today we live in a secularized and rationalized world devoid of metaphysical horizons of meaning. While living in a new paradigm, we still continue to use the old system of coordinates. Despite the sweeping events of the late 20th - early 21st centuries, associated with changes in existential foundations of everyday existence, it is difficult to identify ourselves within the traditional cultural values. Therefore, for the formation of the modern scientific world picture new ideas of reform are necessary. The transformation should occur not only with the addition of new knowledge, but also with changes in consciousness of science.

The scientific picture of the world is perceived as a certain sign, the use of which will determine goals and objectives of science. That is, it again confirms the complementarity of private scientific and non-scientific forms of knowledge and understanding of reality. No system of rules and regulations can claim to absoluteness and versatility. Scientific knowledge is a live dialogue with the surrounding reality. It is characterized as stability, conservatism and analyticity and criticism. And this is manifested by most significant normative value and scientific knowledge.

Given the fact that the scientific picture of the world is increasingly stronger conviction about the inseparable connection between man and the Universe, their unity is perceived not as a mechanical combination, on the other hand, a resolution is not synonymous favor of independence and opposition. In this regard, relevant representatives of cosmism ideas and teachings of the noosphere as they provide humane treatment of all life in the biosphere, the unity of our actions and thoughts become more popular.

Modern scientific world demonstrates shrinkage principles of objectivity and worldview. It creates a vision of a world in which man and the cosmos merged. "The new paradigm, which is still being formed, can be described as a " single view of the world ", which involves perception of the world

as a whole, not as individual parts together" [3, 33]. This is largely associated with the synthesis of Western and Eastern cultural traditions.

Scientific opinion is moving towards the idea of the integrity of the person and the environment. In this sense, the development of science is an important prerequisite destructive use of the environment and the emergence of new intelligent relationship between man and nature. Therefore, the traditional requirement of objectivity of scientific knowledge was in the light of the lack of non-classical science. Science enriched and developed through heuristic axiological components. Most arguments are predefined values, and the subject of knowledge, together with its philosophical principles appears inside the object. The process of humanization of science, its main arguments and statements is based planetary and even universal processes.

The scale of human activity and trends affect today's ambiguous picture of the cosmic universe. The speed with which the humanity goes through the process of self-determination can be compared with a similar natural disaster, the results of which could be catastrophic for all life.

From this perspective, the study of the phenomenon of the anthropic principle, disclosure mechanisms and manifestations of his character will not only understand the universal cosmic processes, but also due to walk to mainstream society development trends and possible future of mankind.

Synergetic plays a significant role in building of the contemporary scientific world picture and strengthening its tendencies to anthropologization, which gradually turns into interdisciplinary methodological model that explains and evaluates not only the complex processes of self-organization in inanimate nature, but also in human society. Synergetic was the first to open purely scientific way for a general theoretical picture of the world, because it really is combines philosophy and both natural and social sciences.

Current tendencies in science convince scientists that not only the past but also the future somehow affects the present state, and this is essentially a new axiological emphasis in transforming scientific world. Despite the still ongoing research in this area, the lack of universally accepted concept through modern picture of the world, science more adequately understands holistic world and its role in it, as well as commensurate with the grandeur of its moral responsibility.

Synergetic rebuilds our worldview. It reveals unusual side of the world: its instability and aggravation of modes, nonlinearity and openness (various options for the future), increasing complexity and evolving integrity (co-evolution laws).

Synergetic researches area within which the behaviors of subsystems of different types and levels which require identifying the general principles of management, the relationship of different sciences are observed. Synergetic vision of the world based on the fact that the development of the world is due to irreversible instability that only systems, far from equilibrium system in a state of instability, are able to spontaneously organize themselves and develop. Synergetic is more than just a scientific discipline, it's an integrative teaching, direction, or a research program that becomes more integrated. In a sense it can be considered a continuation of the strategy of cybernetics and systems theory, the object of it is self-organization mechanisms. These mechanisms are dependent on the specific nature of the components and subsystems, as inherent to the world of the living or non-living systems and the world's natural and social systems.

Throughout numerous studies, it was found that the systems are in a state of equilibrium (thermodynamic, social, environmental, computer, biotech, etc.), show surprising capacity for self-directed. Passing through stages of extreme instability (bifurcation point), they spontaneously form new ordered structures. This indicates that the state of chaos and order are in difficult dynamic communication and inherently includes parameters likely reality.

Contemporary scientific world relates to the recognition of heuristic value of chaos, uncertainty, instability and nonlinearity of random systems that are in a state of unstable equilibrium, significantly transformed the knowledge of scientific criteria to include - as heuristically meaningful - human dimensional truth-value components. Therefore, synergetic (or chaos theory) clearly focuses on the properties of highly complex objects as irreversible, spontaneity, coincidence malfunctioning. In nonlinear systems choice is spontaneous, influenced by random factors. Non-linearity of complex systems means multiple positive solutions of specific situation. Another definition of synergy is a theory of self-organization of open nonlinear dissipative systems. The main feature is the nonlinearity of the world, because it manages this global process. From the standpoint of the theory of self-development, the emergence of the biosphere and its evolution - the best evidence of synergy manifestations laws. Interestingly, the transition from perception to thought is also a process of self-organization.

