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Modern Scientific Thinking: Innovative And Euristic Aspects

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ABSTRACT

This article explores the specific connotation and evristic aspects of modern scientific thinking. Also, the scope of the methodological possibilities of modern scientific thinking, its paradigmal and epistemological unsurlari is widely used, penetrating into all the disciplines analyzed. The ideas of synergetics, coevolution, universal evolutionism, humanism, the paradigm of totality and methodological pluralism, which influenced the formation of modern scientific thinking, have become the subject of philosophical thought.

KEYWORDS

Modern Scientific Thought, Paradigm, Methodology, Modern Science, Innovation, Science, Philosophy, Methodology.

INTRODUCTION

Scientific-technological and cognitive changes, which began in the last quarter of the 20th century in the world, have led to the intensive development of the process of ideological succession and innovation, as well as the formation of modern scientific thinking, which is a new scientific phenomenon. The directions of modern sciences such as universal evolutionism ,ualualistics, synergetics, fractals theory have shown that the epistemological possibilities of thinking, adapted to the study of extremely complex objects, the rules and principles of classical and nokaic sciences, are limited. Modern scientific thinking gives an

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opportunity to in-depth study and forecast the prospects of new ideas, concerted technological projects created in philosophy, science and technology. At this time, he puts before philosophy the ontological, epistemological and methodological scientific-theoretical problems, which have a new meaning. Today, such issues as the essence of modern scientific thinking, the analysis of its creative possibilities, the attitude to scientific traditions, the study of theoretical, conceptual innovative ideas taking place in leading Sciences and technologies, the realization of their epistemological and methodological significance are very relevant. The question of modern thinking has come into the circle of philosophical studies since the last quarter of the twentieth century [1: 18.]. The need for the formation of modern scientific thinking on the basis of the change of the scientific landscape of the universe, the transition from the nokaic natural science to modern natural science, the ideas of synergetics and global evolutionism, is due to the emergence of modern scientific thinking.

LITERATURE REVIEW

In this study, more russian, uzbek and foreign philosophers, psychologists used scientific works.

RESEARCH METHODOLOGY

THE study used the methods of critique-reflection, objectivity, systematic approach, diachronic and synchronous approach, innovative approach, analysis and synthesis, analogy, generalization, comparative analysis, historicity and logic unit of scientific knowledge.

ANALYSIS AND RESULTS

The scope of methodological possibilities of modern scientific thinking is growing. Its paradigm and concept unsurlariual unsurlari is widely used, penetrating into all sciences.

What new ideas, ideas and problems do modern natural science and science promote?

1. **Transition from linear thinking to nonlinear thinking.** In classical and nokaic natural science, mainly individual properties, objects, connections are studied. Modern natural science studies the properties of systems in the universe from a cooperative (collaborative) system, coevolution, renewal, confusion (imbalance)to enforcement. A nonlinear approach complements aspects that can not be achieved through a linear approach and allows for a more adequate description of the object [2.17]. Hence, in modern scientific thinking, a non-linear approach was of euristic importance.
2. **A new, modern scientific picture of the universe was formed.** The scientific landscape of the universe is a generalized system of philosophical, generalized and sectoral scientific concepts and ideas that reflect the world developed in a certain historical period as a whole reality.
   Nokclassical sciences emphasize the development of the scientific landscape of the world (physical, biological, etc.) on individual fronts. Instead of them, a whole holistic scientific landscape of the universe is now being formed. On the theoretical ground of the modern scientific landscape lies the ideas of dynamic disorder (chaos), self-organization, cooperative actions, fluktuasies, chaos, global coevolution, periodicity.
3. **A new (innovative) vision is being formed on the basis of the ideas of synergetics, coevolution and global evolutionism.** And he led to the formation of new imaginations about unity and plural, Universum and plyuversum (single olam

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and many different olam). This is due to the principles of imagination, evolutionism, cooperative interaction, nonconformity and disproportion.

4. **The problem of humanism is entering the sphere of modern scientific thinking**. In modern science, strong attention is paid to the problems of humanism and humanism. In particular, studies on gerontology, synergistic acmeology, the theory of futurology and planning, ecology, ergonomics (and atropotechnics), prakseology and conservation of the Universe[3. 275.]. Human problems and humanism are also the focus of attention in modern scientific thinking.

In particular, the development of the principle of Anthropology in cosmology, the study of the coevolution of nature and society testifies to this.

Professor of the University of Cambridge V.Carter stated that the principles of anthropology can be used in solving cosmological problems. According to the Carter, "we exist because of what the universe is like[4.369-380]. It follows that there is a link between the existence of mankind and the fundamental properties of the universe. Confirmation of the principle of anthropology can be seen that the three dimensions of space are in the presence of favorable conditions for human habitation.

The anthropic printmaking is a printmaking that predicts and predicts the future of the universe's development, its current state, closely related to its past capabilities[5.52].

Russian philosophers gave remarkable feedback on the principle of Anthropology. In our republic, however, B.Turaev will divide the principle of entropy into two (strong and weak). According to the principle of weak entropy, our situation is determined by the fact that we exist in this universe as observers. According to the strong anthropic principle, the universe (which means that even the fundamental values to which it relates) should be so that at a certain stage of its evolution, observers should be allowed to exist [6. 53.].

In the Natural Science of the XX century, the "anthropic principle" is widely applied. This principle in an aphoristic way."Here is man, this man is the embodiment of the universe," J. Willer said. In other words, it notes that there is a link between the existence of Man and the physical parameters of the universe and the solar system, as well as the universal continuity of the mass of elementary particles and interactions [7.361].

XX century in modern scientific thinking, the principles of humanization are becoming an important element of sociology. In modern sciences, there are cases of resorting to the problem of humanism.

5. **The 21st century was a period of formation and development of modern scientific thinking.**

In this regard, it is worth noting that the formation of modern scientific thinking, the study of its philosophical-methodological and epistemological issues at a time when nokaic thought was in a paradigmical crisis, is an urgent problem.

It should be said that nokchik plays the role of an evristical belt in the study of the laws and principles of scientific thought, mainly Giuseppe objects. And the modern scientific thinking, which is being formed, plays an important role in the understanding of the synthesis of the laws of microolam, macroolam, megaolam, their holistic landscape. Therefore, this mentality claims to serve as a concerted basis for all sciences.

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Another feature of modern science of the XXI century is that human activity can be a subject of thought and research, both as a scientist and as a hyperobacterium, with a broader penetration into the framework of Natural Science. In this case, there will be no absolute passable boundary between the object and the subject. In fact, modern science is characterized by the study of complex systems that relate to man.

Nature itself is not special, but man's relationship with nature, the reflection of the object in the human psyche of the universe becomes the main issue. Scientific research is a dialogue with nature. "Open modern research dialogue with nature is not a passive observation, but an active influence," wrote I. Prigozhin and I. Stengers[8.142.].

Hence, in the center of the olam, which is based on stability and disorder, a person stands again. In connection with this process, there is a trend towards the convergence of two cultures, namely scientific-technical and humanitarian-artistic cultures. And man becomes the center of this process. As noted by Italian existentialist Nicolo Abbaniano, "human measurement" in science is manifested in the priority of anthropological problem [9. 160.]

Naturally, such a philosophical aspiration and instruction also takes its place in modern scientific thinking, which is being formed. It follows that synergistic ideas increase the effectiveness not only of natural sciences, but also of socio-humanitarian Sciences.

The object of modern science is increasingly turning into specific "human-size" systems: medical biological objects, environmental objects, biotechnological objects (primarily genetic engineering objects), objects of the "human-machine" system, etc. So, in the modern scientific thinking that is being formed, we can see a new approach to the human essence.

CONCLUSION

In conclusion, modern thinking is formed in science and philosophy, claiming that it serves as a theoretical-conceptual and methodological basis for sciences that study extremely complex, moving, unstable objects.

First, modern scientific thought is a theoretical-spiritual product, which is now being formed, and it is becoming richer in content. Modern scientific thought has its own diachronics of formation, which has included different ideas and imaginations from different scientific branches.

Secondly, when considering the euristic aspects of modern scientific thinking, it is possible to recognize the active manifestation of methodological pluralism, cognitive polymorphism, an innovative approach, the principle of anthropology, etc.

Third, although modern scientific thinking is fundamentally different from noclassical thinking, it preserves some ideas (management, self-organization, environmental paradigm, periodicity, evolutionism, etc.) in it based on the mechanism of ideological succession.

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