

A Paradigm of Synergetics and Nonlinear Thinking

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Abstract: In this article, a study was conducted on the emergence of the synergistic science of the coming out of the scientific direction, its transformation into a general methodology and the formation of a subtle paradigm.

Keywords: synergetics, paradigm of nonlinear thinking, open system, nonlinear system, chaos and enforcement, unstable situation.

Introduction:

Synergetic as a paradigm of nonlinear thinking forms the conceptual basis of the postnonclassical scientific way of thinking. The wide application of synergetic also affects the exchange of paradigms of many Sciences. Some authors express the idea that synergetic is not yet a science with status. In Particular, according E.N. to Knyazeva, synergetic is no longer a science and philosophy, but a science that is now being formed[1.33].

Synergetics as a science is a scientific direction that studies the processes of self-organization in open, non-existent systems, the phenomena that lead to these processes, the properties and laws in them. At the same time, synergetics also fulfills the foci of a theoretical-methodological approach and a style of thinking, which gives the opportunity to carry out the synthesis of knowledge, the approximation of scientific and cultural-spiritual values that stand relatively far from each other, the understanding of common or similar characteristics inherent in them.

Since synergetics gives a new picture of the universe, it gives an opportunity to generalize the innovations in sciences, to give new meaning to the concept of self-organization, to deeply understand evolution on the basis of non-rational thinking. Synergetics as a method of scientific research came into being in the 70-ies of the last century.

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: Co-founder of synergetics g. Haken believes that the synergistic view is different from traditional viewpoints in that it consists of simple system research to complex system research, from closed system to open system, from linear to nonlinear, from delocalization and unbalanced process review to the study of processes taking place from equal weight to distance[2.26].

In the synergistic paradigm, chaos and enforcement in the system are regarded as two opposing and complementary essences. This assumes that according to, o.F.Fayzullaev said, " when we say that the system is self-organizing, it is implied that the system is self-motivating, creator. The self-organizing system will be characterized by uncertainty, complex chaotic structure, coherence, fractality of structures, "bifurcation" [3.42].

In the literature, the following is expressed about the synergistic paradigm: the synergetics itself is at the stage of a concerted-methodical upsurge, its paradigmatic structure and unsurlari is not yet in a mature state[4.42].

The principle of nonconformity of synergetics plays an important theoretical role in the postnocial way of thinking. This gives the universe the opportunity to understand its self-organizing dynamic characteristics. Synergetics is a source that puts new non-traditional issues about the olam, that is, the Olam landscape as a science that is shaping a new evolutionary and holistic model, manifests itself in its evolutionary possibilities.

As a new look at the essence and structure of complex systems I. The theory of dissipative structures developed by Prigozhin played an important euristic role. In his opinion, dissipative structures are formed with the help of a continuous exchange of energy and substances with the outside world of systems and maintain disproportionate stability. One of the characteristic features of the dissipative structures, that is, the ability of the order to rise significantly, is explained by this circumstance[5.43].

Synergetics-the study of the laws of development and self-organization of any system with a complex structure, the wide spread of ideas and methods related to it, attributed the germenetic character of the postnocycological method of scientific thought.

On the ground of synergistic ideas, new scientific and philosophical concepts of the scientist and being are being formed, which give new meaning to the concepts of unity and the plural, Universum and plyuversum (single scientist and many different scientist). In addition, the principles of relativity, evolutionism, cooperative interaction, non-objectivity and imbalance, which are theoretical integrations in synergetics, also play an active role in the development of a modern and scientific landscape.

The research, which is being developed in synergetics, is combining methods and rules that differ from each other into a new approach. This in turn leads to a change in the scientific landscape of the universe, a renewal of its thinking.

The linkage of different epistemological models in the general landscape reflects the totality of a complex structure and this serves as an example of postnocial rationality. This landscape manifests itself in the system of a number of principles of synergetics (chaos, enforcement, flocculation, bifurcation, destruction).

According to the synergistic approach, nonlinear thinking has entered into its composition the image of chaos, enforcement, inconsistency, self-organization, bifurcation, kogerent and cooperative processes as a concerted element, becoming the ideological-theoretical and methodological ground of postnocial science. Observing this euristic phenomenon,"in fact, the synergistic methodology is now being formed," says[6.164], V.V Guberev.

In the process of discussion of the methodology of postnoctechanical Sciences in the philosophical literature, the issue of the style and approach of binary thinking, which is an alternative approach to it, has become a subject of critical reasoning. Stressing that synergetics is disproportionate to binary thinking, they suggest that synergistic thinking style occurs outside of views based on dihotomic claims[7.56].

From the point of view of synergetics, we see everything: both the whole thing and its parts in an equal epistemological space. In other words, in synergetics, holism and elementarism, which pass through each other without interruption, are united. This view constitutes a feature of synergistic perception of the world[8.31]. And the role of synergies in imagining the holistic landscape of the universe is incomparable.

Possible processes in the postnocyclic way of thinking acquired a new meaning under the influence of a synergistic approach. In the synergistic paradigm, chaos and order in the system are regarded as two opposing and complementary essences. Classical science recognized two different systems. The first of them were systems based on determinations, and the action of these systems was based on nonlinear equations of classical mechanics. The second is stochastic, systems based on probability processes[9.38].

Some authors note that synergetics as a new method of philosophical contemplation, along with a linearity, also favor the principle of non-linearity. This principle indicates that progress goes on a new and unique path every time on the basis of an internal feature and external relevance of everything, without going on an inevitable path that was previously defined [10.37]. But in our opinion, it is not yet sufficiently proven idea that synergetics will receive the status of a new method of philosophical thought. The correct synergistic approach has important concepts and categories that are suitable for describing many spontaneous, complex processes in nature and society. But its soundness is not infinite. Therefore, synergetics should not replace philosophical reflections and approaches until now. For example, transtsendental cognition, Infinity, human problem, metaphysical issues, meaning and meaninglessness and other issues are only subject to philosophical reflection.

Synergistic thinking differs from other styles of thinking by its non-possessive character. Synergistic thinking plays a methodological role both by nonlinear analysis of scientific creativity, indicating that it has a complex and open system, as well as the property of self-organization. Also, issues of random (fluktuational), unstable situations in scientific creativity, transition from chaos to order in the development of creative ideas, entropic and negentropic changes in creative potential, multiple variability of nonlinear scientific creative research are studied in detail within the framework of synergistic thinking. Although this method of thinking is not more than formed, its impact on scientific creative research is incomparable[11.94].

Conclusion:

First, hence, the principle of non-existence has become a characteristic feature of the postnoclassic style of scientific thought;

Secondly, synergetics offers a way of evolution of development;

Third, synergetics introduced concepts of order and confusion into the world landscape;

Out of the four, the synergistic Sciences claim to function as a general methodology;

Fifth, the synergetic categories brought the non-linear paradigm and approach to both natural and ijtioid-humanitarian disciplines.

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