

# Synergetics in Social Systems and its Possibilities

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**Annotation:** the article describes the features of the use of synergetic ideas in the social sciences. Synergetics and its possibilities in the study of the social system are also discussed in detail. The development process is described by dialectics and cannot be replaced by synergetics. It has been studied that a more effective approach to the study of society in modern science can be carried out on the basis of a synthesis of elements of all existing methodological approaches, in particular: dialectical, informational, systemic, synergetic, etc.

**Keywords:** Social system, social sciences, synergetics, methodology, dialectics, fluctuation, bifurcation.

## I. Introduction

The appeal of modern social sciences to new methodological approaches is a necessary consequence of their situation. The change of the previous social system and attempts to move to some new social system deprived social science of its previous foundations. A scientific crisis has arisen. The political events in our country coincided with the processes in world science, i.e., the post-noclassic stage of its development. A similar situation is typical of social sciences in the West.

## II. Literature Review

In the absence of new approaches, ideas, models, etc., synergetics has become a breath of fresh air for those looking for new research topics in the social field. Analysing the application of the synergetic approach to the knowledge of socio-historical phenomena, B.O. Turaev states that being aware of the heuristic possibilities of synergetics, understanding the "exhaustion" of the methodological possibilities of classical and non-classical science leads to the development of synergistic ideas in the analysis of social processes [1]. According to Z.O. Muminova, a number of scientists continue to search for the possibilities of socio-philosophical application of the new worldview [2]. And G.S. Sultanova has been conducting thorough research in the analysis of the application of new ideas to theoretical history [3]. M.H. Ergasheva uses synergetics in the analysis of self-organization of education as a developer moving towards a complex superattractor and in the analysis of social development [4]. We tried to develop the concept of dynamic self-organization mechanisms of social systems [5].

Applied research is also developing in sociosynergy, for example, problems in areas such as social inequality problems, economy, conflictology, political science synergy are waiting for their researchers

### III. Methodology & Empirical Analysis

We can specify the specific features of the application of synergistic ideas in social sciences, and several areas where the synergistic approach is used in the study of socio-cultural processes.

✓ The first direction guides the researcher to understand the mechanisms of self-organization, on the one hand, and the regulatory mechanisms in the field of social relations and cultural life, on the other hand, to know the laws of their development. As a result, the cumulative synergistic efficiency of the mechanism of spontaneous and rational control of interaction in the conditions of large-scale changes of society was determined.

✓ The second direction includes the analysis of social and cultural changes in their dynamics. The problem of socio-cultural self-organization cannot be considered only at the level of social factors (for example, the formation of new relations in economic activity, interpersonal relations, etc.), it also implies consideration of spiritual and symbolic identity, the meaning of traditions, and the value-semantic foundations of culture. holds, this direction implies combining the principles of synergetics with "traditional" culturological methods.

✓ The third direction is related to the transfer of synergistic schemes and models from various fields of natural scientific knowledge, rather than individual principles of synergetics that provide a general direction for philosophical and cultural research.

Each of the specified cognitive strategies is born at the "intersection" of models and schemes of natural sciences, as well as methods and approaches of social and humanitarian sciences (structural-functional, hermeneutic, phenomenological, psychological, etc.).

Culturological research is a unique field that aims to identify changes in culture in a synergistic way. It should be noted that two or three methodological approaches are often combined in research practice. It would not be wrong to say that the basis of this is the effectiveness of interaction between different fields of knowledge (natural-scientific, social-humanitarian, etc.).

In Uzbekistan, social synergetics is developing in two main directions of philosophical and socio-cultural research: fundamental (theoretical) and practical. In particular, within the framework of the theoretical direction, attention is paid to the following:

- the main principles and strategies of synergetics as a methodological basis of social synergetics - transdisciplinary, interdisciplinary coordination and dialogue;
- nonlinear dynamics and nonlinear thinking;
- behaviour of open self-organizing social (human) systems, etc.;
- The development of the practical direction of social and socio-cultural synergetics is also taking place rapidly, within which the following are determined:
  - mechanisms of self-organization of socio-cultural processes at different levels of social systems - civilization, region, etc.
  - an important feature of social synergetics is the mutual transition from the theoretical level to the empirical level of research and vice versa, the presence of a "middle" layer in research.

Four types of research strategies can be distinguished in which synergetics serves as a leading tool for understanding socio-cultural processes:

- ✓ communicative (dialogue) strategy;
- ✓ theoretical modelling related to the transfer of synergetic models to another material;
- ✓ transdisciplinary strategy;
- ✓ synergetic discourse.

Synergetics with its cognitive possibilities is of great importance for modern science and social science in particular. This leads the researcher to a more complex perception of the world. It serves to reveal the laws common to complex (open, unbalanced) systems. Today, synergetics is in the process of formation and does not have a clear and stable structure. The methodological function is performed by all parts of synergetics at different levels: principles, laws and basic concepts.

The growing interest in synergetics is due to its heuristic potential. These possibilities are manifested in the patterns of self-organization that occur in any open, non-equilibrium system. Despite the fact that the laws of self-organization have a universal character, there are certain limitations in the analysis of the historical process and their application to a number of other processes. These limitations relate both to the understanding of the significance of the discovered patterns and to the nature of the patterns themselves.

The use of synergetics in social research is often associated with the absolutization of its laws and the denial of the role of philosophical methodology, in particular, dialectics [6]. This is especially true when it comes to the development process of a bifurcated system. It should be noted that dialectics has not lost its potential, and it would be wrong to try to solve all problems with the help of a new methodological approach.

Some proponents of synergetics try to "adapt" dialectics to synergetics, editing dialectic laws. This is quite acceptable if we take into account that it leads to the development of the content and not to its change or distortion [7].

Synergetics itself implicitly includes dialectics, but it must be admitted that due to the undeveloped rules of synergetics and the specificity of the language it uses, it has not yet manifested itself sufficiently. The most "loyal" researchers and admirers of synergetics do not deny its novelty or its dialectical character. The basis for our understanding of synergetics is that almost all of its concepts, principles and images are dialectical in nature and help to form a dialectical view of the world in modern science [8].

Since synergetics can explain the self-organization of various open systems, attempts to raise it to the level of a philosophical methodology are more emotional than rational

#### IV. Results

So what does it mean to reject dialectics and replace it with synergetics in the social sciences? Such a rejection leads to the absolutization of a certain stage of system development and to losing sight of the entire development process. If we look at the research on social synergetics, which tried to describe the development of the social system, then as synergistic concepts, we mainly talk about the relationship of order and disorder (chaos). Of course, in any system, you can find both order and chaos, but it is not correct to attribute to them the property of creating a system. Let's look at some examples for justification.

The uniqueness of social synergetics is that, unlike physical and biological synergetics, it studies the general laws of social self-organization, that is, the relationship between social order and social chaos [9]. "Synergetics sees the process of development as a regularity and at the same time a repeated exchange of order and chaos" [10]. There are many studies that look at the transition between order and chaos. Another characteristic associated with these concepts is that chaos is given meaning as the creator of order. Almost all synergetic researchers emphasize the creative potential of chaos. Bransky claims that chaos organically merges into the landscape of development, but at the same time retains its creative character, creating a new order and chaos [11].

If the phrase about the creative role of chaos is a metaphor, then it is very appropriate. But if this is not a metaphor, then there is no way to agree with it. Chaos, from the synergistic concept itself, is the state of a system in transition or bifurcation. Chaos is the state of the system, and the state cannot be a driving force, a source of movement. A situation may act as a stimulus for self-organization, but the cause, the source, of self-organization is outside of chaos. Physics or chemistry does not know the internal causes of the activity of elementary particles, atoms, molecules. Therefore, it is more correct to explain the process of their self-organization not by their activity, but by external reasons. For a long time, some scientists reasoned about uncertain things simply by saying that "this is the nature of the object." Chaos reflects the specific characteristics of the movement of system elements. The reason for self-organization is not chaos, but something else. This cannot yet be understood in physical matters, but it can be realized in matters of social systems. Society involves not elementary particles as parts, but people who are themselves a complex system. These systems have internal activity, and the reasons for their organization can be understood by studying the reasons for their behaviour and actions. They are not in chaos, but in man himself. The presence of natural behavioural programs (instincts) in a person as a biological being ensures the activation of the mechanism of self-organization in cases of disorganization and destruction of the social structure. The social system at the level of elements is unbalanced. People are not the same in the level of their personal qualities. In particular, there are active individuals, leaders, whose desire to dominate society is more developed than others. In turn, people who encounter such dominants demonstrate the operation of another instinct - submission. Therefore, as in any community of living organisms, a hierarchical structure appears. It seems that chaos has absolutely nothing to do with it.

Now let's consider the "favourite" idea of social synergetics, the views about the endless transitions from chaos to order and vice versa, from order to chaos, and the complexity and simplification of hierarchization in the process of social development. If there is no end to this process, it goes to infinity. During the primitive community, all members of society were socially equal to each other and private property did not exist. With the development of civilization, inequality between people and private property was formed. A rational principle, i.e. cultural dominance, plays a role in the organization of common life in a primitive society, and as a result, management and structure are the leading forms. And in civilized societies, an automatic mechanism is activated that regulates interaction, competition, choice, and as a result, self-organization. In the centre of this form of human existence as a phenomenon, a conscious person acts, but in essence, his actions are determined not by rational principle and culture, but by natural biological instincts. In this case, the rational basis



serves the unconscious. If we stay in the synergistic position, we will indeed witness chaos to order, order to chaos, and many choices. But it is forgotten that the primitive society is a unique form of organization of people, which only leads to the search for chaos and order. Dialectic allows us to see something else. It is people who are fundamentally different from each other, but genetically interrelated, that show two qualitatively different forms of organization. First, Hegel, and then Marx, Engels and their followers showed that these are natural stages in the development of an organic system. The first stage is the emergence or confirmation of a new quality. It goes from an imperfect, undeveloped form and slowly towards development. It then proceeds to the second stage, negating the first stage. At the same time, both form and content are negated. At this stage of development, everything is presented in the opposite way to the first stage. This is exactly what we can see in history. At first, there are communities based on relationships, humanity, equality, the commonality of all things necessary for life. But all this is in the bud and is formed only in the team. Labour productivity is low, and livelihoods can only be achieved through the combined efforts of all community members. In an undeveloped individual consciousness, the idea that "being is us" prevails. Naturally, the concept of "being is I" cannot exist. The control parameter of joint life is cultural norms, which prohibit certain behaviours, that is, forms of manifestation of natural egoism. However, with the development of means of production, individual labour productivity increases and individual consciousness develops. First, the elite group, whose ego is more developed than others, separates from the community. This group, due to their natural abilities, was able to produce a surplus compared to others and became self-aware, that is, their "ego" earlier than others. Therefore, this group was separated from the general mass and began to be differentiated according to various aspects: clothing, jewellery, food, and later the appearance of slaves, etc. Gradually, private property, social inequality, competition for resources, status, fame, etc. emerge as the basis of struggle. The main thing in this process is the awareness of individuals about themselves and their needs. Mind began to serve the interests of the individual rather than the interests of society. Society has moved on to the next stage of its development, which Hegel called the Anti-thesis. Here everything is shown as the opposite of the first stage. This stage of community development works according to the laws of synergy as a stage of self-organization. The basis of the mechanism of self-organization is neither chaos nor the struggle of chaos with order, but the struggle of the instincts of people participating in the life process, the struggle of interests. As the struggle of individuals for primacy in living nature is the basis of natural selection, the mechanism of improvement of the species, the struggle of individuals for property, power, wealth, etc. (purely human forms) ultimately leads to the development of society. Labour productivity, standard of living, intelligence, level of humaneness in relationships, etc. will increase. All this happens through bloodshed and suffering, and yet progress is made.

A.K. Astafiev, V. P. Bransky, K. M. According to Oganyan, unlike nature, in the development of society, objective order and objective chaos, ideological ("subjective") order and chaos merge with each other in a unique way. That is why there is no independent "objective" criterion of social development apart from social ideals. This leads to a very important conclusion: relative progress is determined by the realization of a relative ideal, and absolute progress is determined by the realization of an absolute ideal [12]. The thesis that "ideas (ideals) rule the world" has been known for a long time. However, a constant question arises: what is behind the ideal, what defines it?

If we ignore some aspects of the worldview, then from the point of view of Kant, Hegel, Marx and Engels, the ideal is the image of the purpose of activity. If we turn to modern psychology, we will see that the goal of activity (ideal) is inextricably linked with the attitude, which in turn is inextricably linked with the motive, and the motive is inextricably linked with the need. We know that needs are biological and social. Biological needs are not only the need for food, drink, etc., but also ensure the survival of the individual organism. Biological needs can also be related to the improvement of the species, such as the desire to be superior to others, to dominate, and to perpetuate one's own offspring. This need is as important to a person as all other needs, and may even be more important than others. Thus, we are faced with at least two ideals that are in opposite directions. The first ideal serves the desire to dominate, to subjugate other people, and the second ideal requires to prevent such an attempt by others.

Ideals based on abstract, speculative constructions contain a theoretically justified instinct or situational necessity, or reflect the essence of sociality, the essence of the first form of the ideal called the primitive community (liberty, equality, fraternity). Until the basis of the ideal is clarified, it is impossible to explain why a person so actively tries to implement it in life. The nature of activity is included in the biological nature of a person in the form of biological instincts.

There is a need for a special hierarchical structure called the state, aimed at providing advantages in meeting the needs of others in return for the work of a certain part of society. The state ensures the reproduction of the existing structure of relations, the suppression of the fluctuations that occur, and the return of the system to its previous state. However, from time to time, due to external or internal factors, the structure of the social system (local community) breaks down, structural chaos appears. In such conditions, the process of self-organization begins. The reason for this is the constant activity of people, the desire to rule. And they gather like-minded people around them under different slogans (ideals). If the ideal ripens in time (conditions, opportunities), the fluctuation increases and can subjugate the whole system. However, with the change of initial forms, the essence of the relationship has not changed much for several thousand years. Economic relations and forms of exploitation have changed, but exploitation itself has remained. The rational basis for building relationships between people turned out to be weaker than the natural principle - the desire to dominate.

The above authors claim that the state of crisis of society implies the objective emergence of a number of possible (especially virtual) structures. In this case, society as a social system is on the verge of a social explosion, which can be prevented only by social changes that satisfy the interests of the general public and lead to transformations. The element of nonlinearity is based only on the principled uncertainty of the results of social change [13]. This is certainly true because the outcome during a crisis is difficult to predict.

Another aspect of the application of synergetics in the social sciences requires clarification. This is the use of the concept of "social system". At one time, while working on the problem of social development, Marx had to introduce a new concept - "socio-economic formation" into circulation. This was related to the very broad meaning of the concept of "society". A similar situation can be seen in social synergy today. First, the concept of "society" is used without specifying the limits of its application (a society of car enthusiasts or a society taken from a certain stage of history or a modern society, Greek, Indian, etc.). Secondly, the concept of "social

system" is used without defining its content. Therefore, when describing the transition from chaos to order, movement towards an attractor, etc., it is often unclear what kind of social system is being talked about.

Synergetics considers systems located in phase space, transition or jump space if we use dialectical categories. In other cases, the laws described by him also occur, but in one way or another, the transition of quantitative and qualitative changes to each other is related to the mechanisms that determine the manifestation of the dialectical law. Therefore, without clarifying the question of which society we are talking about, it is impossible to stand and apply synergistic views of the process of self-organization to society, because it causes confusion and leads to wrong conclusions.

## V. Conclusions

It should be concluded from the above that it is absolutely impossible to consider the process of self-organization in society without defining which society we are talking about. Otherwise, we end up with an inappropriate abstraction that can be applied to any situation and explains any situation, and is therefore completely useless. The analysis of the process of applying synergetics in the social sphere shows that there are still many unclear aspects. Undoubtedly, the process of studying society from the point of view of synergetics often suffers from the absolutization of some rules of synergetics. The creative potential of synergetics in the study of the processes of self-organization of human society is far from being fully utilized, and it becomes effective along with the development of synergetics. The main task in the study of society is not to exaggerate the possibilities of synergy in the description of social processes and to clearly understand the limits of its application in the development of the social system. Synergetics describes only one aspect of the development process - self-organization. The process of development is described by dialectics and cannot be replaced by synergetics. A more effective approach to the study of society in modern science can be made on the basis of synthesizing the elements of all existing methodological approaches, in particular: dialectical, informational, systematic, synergetic, etc.

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