

# EURASIA AND COMPLEX SYSTEM THEORY

Concept of Eurasia has different meanings – from geographical description until political interpretations based on historical background and needs of realpolitik.

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**C**oncept of Eurasia has different meanings – from geographical description until political interpretations based on historical background and needs of realpolitik. In this article, we propose to reevaluate this region from position of frame theory and complex system theory. “A frame in communication can be defined only in relation to a specific issue, event, or political actor. For example, the frames for social security reform differ from the frames for immigration reform. Even the same issue at different times may invoke alternative frames... Strong frames are those that emerge from public discussion as the best rationales for contending positions on the issue. These frames strike opinion leaders and audiences as being more compelling than alternative arguments. The typical political strategy is to connect a proposal to a positive idea or value that is widely available in the population.”<sup>1</sup> This approach is valid for Eurasia and powers that claim to be implicit Eurasian ones and develop own Eurasianist ideologies.

A deep analysis and deconstruction of existing regional systems are also needed to identify elements of interdependence and develop possible responses to all sorts of questions. For example, what does unite and what does divide the Middle East and the Balkans? Not only the longstanding conflict between Christian and Muslim actors but, on the other hand there is also a syncretic coexistence of Islam and Christianity developed within

the framework of the mutual influence of the various people’s cultures. This is not only a matter of proximity or distance. One can look at these regions from different angles depending on the chosen vantage point.

According to opinion of the author, serious attention needs to be paid to two things. Firstly, there is the system of external influences which the two regions were established under and which continue to be affected by. The second factor is the common historical and political heritage which, when appealed to, offers solutions for current issues.<sup>2</sup>

Is there any trace of Samuel Huntington and his concept of the clash of civilizations evident here? If yes, then in this case, the types of civilizations introduced by him bear a clearly religious connotation. Thus, the Westphalian model, based on the separation of secular and religious power, is a farce. Therefore, the results of the Enlightenment should be questioned and revised.

Meanwhile, one of the world’s conventional theories of international relations, realism, is also a product of the early Italian Enlightenment. The founding father of this theory and the notion of “national interest” is considered to be Niccolò Machiavelli who promoted these ideas in his book, *The Prince*. However, are these views authentic? Machiavelli derived many theses from the works of the Byzantine work *Strategikon* whose author is known as

Maurice or pseudo-Maurice. It is unimportant whether this work belonged to Emperor Maurice or to one of his generals. What is important is that this interesting Byzantine theory of realism guided the world's leading power. The Byzantine Empire once covered considerable area and pursued quite successful policies. Moreover, Byzantium's confrontation with wars, religious conflicts, internal contradictions, and the Great Migration can be compared to the current crises, especially the immigration crisis, in Europe.

The Byzantine heritage can seriously help one to find an appropriate policy in solving many existing problems and challenges. This is not only reducible to the Christian Neoplatonic School which developed metaphysical doctrines for surpassing issues of administration and management. It is also unavoidable to view Islamic philosophy in isolation from the Byzantine Empire. Although medieval Islam and its legal schools have experienced serious changes, a number of recognized Muslim scholars, like Ibn al-Arabi, have utilized and developed many Neoplatonic ideas. Ibn al-Arabi's doctrine of the Unity of Being (*wa dat al-wujūd*) was addressed not only to mystics, but also to Muslim jurists and theologians, i.e., those who in fact worked on public policy issues and international relations.

Another example is complex system theory that may be used for framing of Eurasia and eurasianism. It is obvious that in XXI century we can also speak about application of self-organizing criticality, nonlinear geometry, epistemological anarchism, dissipative structures, and complex thinking for the political sciences. Steven Mann appealed to new fields in physics to explain the nature of ongoing political processes. In his article, "Chaos Theory and Strategic Thought"<sup>3</sup> he compared the state to a computer and ideology to a virus which can be applied as an instrument in capturing a territory without any material damage. Many other authors also mentioned new scientific paradigms for political analyses.

Such a term like "complex systems" utilized in modern science might be quite suitable for such a new formation like emerged alliance or geopolitical block in Eurasia. In addition to that, the presence of numerous actors associated with both the internal politics of this system and international relations compel us to appeal to yet another well-established designation, that of nonlinear dynamics.

Let's see how a complex system operates together; at first glance, unpredictable conditions from the point of view of the new scientific paradigms written by the authors have been busy for a long time with such a trajectory. It is possible that such a theory will help us to predict the formation and the development of the Eurasian Union as well as to avoid various mistakes in the future and circumvent diplomatic traps set by this project's opponents on the chessboard of global geopolitics. Of course, it is difficult to limit ourselves to

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just one or another new discovery. Bearing this in mind, let us deal with the concepts of systems theory. One of the pioneers of this field was Lars Skyttner, whose monograph "General Systems Theory: Ideas and Applications"<sup>4</sup> served as the basis for determining the very laws of a functioning of systems. There are fifteen such rules and we will try to apply it for Eurasian Union (from theoretical point of view only).

1. The second law of thermodynamics: Although Skyttner refers to the redistribution of heat between bodies within a closed system, according to a number of authors this law is applicable to complex systems which are fundamentally open.
2. The law of complementarity: In the context of Eurasianism, Lev Gumilev<sup>5</sup> developed the laws of complementarity between peoples. In systems theory, this law appears as the following: any two projections or system models allow one to acquire knowledge about one of the systems, as two systems are by no means fully independent or compatible. Accordingly, Paul Feyerabend and Nicholas Maxwell's ideas on the existence of competing and alternative theories possess no less of a convincing base of evidence. Undoubtedly, the Eurasian Union is a project subject to numerous descriptions, sometimes even contradictory ones.
3. Holism: According to Skyttner, while one system is composed of holistic properties which do not manifest themselves in any of its individual parts or interactions, individual parts create the whole which do not necessarily appear in the system exclusively. In our case, the Eurasian Union is represented only partly by its system as a whole. The numerous details of which it consists escape from view. For example, the Eurasian space is made up of a great mass of different ethnic and language groups which inhabit it. However, for one reason or another not all of the nationalities can make decisions pertaining to the supranational, international formation and, of course, not all languages can claim to be recognized as official languages of the union. Something similar can be said about the legal aspects of the union. Traditional laws and religion strongly influence some regions while in others they are not applicable. Moreover, the principle of



- holism leads to the necessity of interdisciplinary studies which reject the narrowness of “specializations” that are often insufficient for studying complex processes.
4. The “darkness” concept states that both inner and outer face of a system cannot be entirely known. Firstly, a given system’s elements cannot be totally conscious by themselves and, of course, each one will be responsible for the information available for these political processes.
  5. The “80-20” principle: The behavior of a system is formed 20% by its elements, while the major 80% is fulfilled by the stabilizing functions of the system, in other words, a kind of protective service. In fact, this concept confirms the well-known theory that the minority is always behind both the establishment and death of states. The remaining masses are led by this simple minority (the “passionaries” according to Gumilev). This principle appears to be fairly clear. It is possible that mathematical modeling could contribute to an adequate allocation of resources (both human and material) in the creation of the Eurasian Union.
  6. Law of requisite variety: According to this law, the variety of elements governing a system should not be less than the variety of perturbations input into the system. In other words, greater diversity of a system’s possible operations means simpler struggle against possible deviations.
  7. The principle of hierarchy: The word hierarchy immediately brings to mind either the pyramid of layered categories relevant to the agrarian period of human history, or political and bureaucratic ladders that reflect the principle of a state’s functioning in the industrial era. In the case of the Eurasian Union, however, such hierarchies are based on natural phenomena and consist of several integrated systems on each level. Thus, in complex systems hierarchy represents itself as a complex process rather than single structure consisted by separated blocks. An example of this in international relations is presented by supra-state structures which need their own managerial language by differing from the model used by the states themselves.
  8. Modularity: Any system is divided into a certain number of modules. Researchers have noted that the spontaneous emergence of modular organization is peculiar from critical networks. The presence of such modules produces a system in which so-called “walls of resistance” appear impeding the passage of signals. This resistance can be posed by parties, bureaucratic officials, or the specific interests of regional or national elites.
  9. Redundancy of resources: Such a requirement is needed for ensuring stability under circumstances of disturbances as discussed in the description of the law of requisite variety and the 80-20 principle. It should also be noted that an important condition of the information age which

is supplementary channels of communication are needed for the obtainment of proper information and its robust protection. Information leaks or the intentional incorrect interpretation of information can be used to destabilize a system.

10. The principle of “large density flow” is also connected with the previous point. If the flow of resources through a system is large enough, then more resources will be available for coping with disturbances. This all seems quite simple, however, in addition to the tasks of ensuring the stability of a system, the questions of quantum leap, development, and evolution are might also arise, i.e., those societal imperatives for the realization of qualified policies and new achievements in science and technology.
11. Lars Skyttner’s principle of sub-optimization is defined in the following way: even if all subsystems are individually designed to operate at maximum efficiency, this does not mean that the system as a whole will operate at the same efficiency. Vice versa, it is possible to develop the most effective model for the whole system, but its individual elements might not live up. This brings to mind certain thoughts associated with the unification and standardization of administrative decisions and processes. According to this principle, it follows that there is no single organization or collective which might be effective at all levels of a hierarchy. Hence the conclusion can underline that adequate staffing and proper organization are necessary for integration processes.
12. The next principle, which also bears relevance to the previous one, refers to the redundancy of potential control. In order to achieve a desired approach, it is necessary to possess a sufficiently thorough understanding of a system.
13. The principle of causal negative feedback and positive feedback, which is also a staple of physics, is linked to the equilibrium of systems. With the

presence of negative feedback, the equalized state of a system remains invariant to a wide range of initial conditions. Positive feedback produces the opposite effects. This phenomenon is also called the law of creativity since the consideration of a social system depends on examining different results from all groups at once with the most similar initial parameters possible.

14. The principle of relaxation deals with the following: if the relaxation time of a system is less than the average time between disturbances, then a system is likely to be stable. This is directly relatable to integration processes seeing as how they mean the rearrangement of economic, legal, political, and social mechanisms. If this reorganization goes too fast, then it will fail to adapt to and “digest” previous impacts.
15. The principle of spotting is a quite interesting postulate proposed by Skyttner which says that systems constructed on restrictive rules, where what is permissible and what is not are specified in advance, are less stable than the systems which develop randomly.

We have briefly described the fundamental principles proposed for complex systems by Lars Skyttner. Yet there are still a number of attributes. In their time on the basis of interdisciplinary studies, scholars at the Santa Fe Institute developed methods for controlling complex, adaptive systems and other definitions.

Balancing between order and chaos, which necessarily arise out of from the properties of complex systems, and the pluralistic and non-linear thinking characteristic of their descriptions will be useful not only for explaining the changes already underway, but will also aid while designing the new reality of the Eurasian Union. The main task is choosing the right equivalents between current geopolitical perturbations and the theories of complex adaptive systems. This is at least totally possible on a theoretical level, and as an experiment it could be extremely useful for forecasting and modeling integration processes and possible threats against them.

## Endnotes

- 1 Dennis Chong and James N. Druckman, Framing Theory // Annual Review of Political Science, Volume 10, 2007: 103–26 <http://faculty.wcas.northwestern.edu/~jnd260/pub/Chong%20Druckman%20Annual%20Review%202007.pdf>
- 2 Leonid Savin, The Balkans and the Middle East: Byzantine heritage and realism // Geopolitica.ru, 01.04.2016 <https://www.geopolitica.ru/en/article/balkans-and-middle-east-byzantine-heritage-and-realism>
- 3 Steven R. Mann, Chaos Theory and Strategic Thought // Parameters, Autumn 1992, 54 — 68.
- 4 Lars Skyttner, General Systems Theory: Ideas and Applications, N.J., World Scientific (2001).
- 5 Lev Gumilev, Ethnogenesis and the Biosphere, Progress Publishers (1990).