

Two Major Areas of Interaction with Culture and Society for the Modern Man

Nikolay Kozhevnikov and Vera Danilova*

Abstract: The coordinate system of the world is allowed to associate any thing with its limiting equilibrium states (dynamic equilibria) and consider it from the point of view of these limits. The coordinate system of the world relies on three types of limits: identification, communication and main rhythm of the formation (thing). Capabilities of the world coordinate system in natural sciences, social sciences and humanities are considered. Capabilities of the world coordinate system in culture are considered, too. The interaction of the natural and the artificial things interaction of the humanitarian and natural sciences based on the coordinate system is the way of further investigation in the paper.

Keywords: coordinate system, world, dynamic equilibrium, being, thing, identification, communication, rhythm

INTRODUCTION

Two major areas of interaction for the modern man with culture and society may be connected first with natural and artificial areas or things. This question may be continued at the problem interconnection between the natural sciences and Humanity. In the ancient view the «natural» was considered as an ontological value, according to which nature, cosmos are divine, sacred, spiritualized. Artificial seemed to ancient Greeks something secondary, derivative, occupying a position lower than natural. In the Middle Ages the value of natural and nature substantially lowered too. Currently there are the following aspects of natural and artificial: semantic, taxonomy, evolutionary, noospheregenesis and approach based on ideas about the natural coordinate system of the world.

Semantic aspect examines the differences between natural (linguistic) and artificial (formal, symbolic, perfect) languages. In

* Nikolay Kozhevnikov; Vera Danilova (✉)
North-Eastern Federal University, Yakutsk, Russia
e-mail: e-mail: nikkoz@gmail.com (corresponding author)

studies of this aspect, we develop the conception of artificial intelligence. Classification aspect compares natural and artificial classification. As a rule knowledge begins with the last ones, but it will gradually rise to the natural classifications, which promote the establishment of laws and regularities. The evolutionary aspect focused on the comparison of natural and artificial development.

METHODOLOGY OF INVESTIGATION

In this work, we consider the interaction of artificial and natural proceeding from the coordinate system of the world, based on the limit dynamic equilibria generated through self-organization. A natural coordinate system necessarily exists, because, despite the complexity of the world, it is perfectly organized, reasonable, optimal, and stable. On the other hand the complexity and chaos includes deterministic (dynamical) chaos (Prigogine and Stengers 2000) spread in the world exclusively widely and in future interactions with humanity in all spheres of its activity will be intensified, as well as the need for understanding these processes, so deterministic chaos are accepted as grounds natural coordinate system of the world (Kozhevnikov 2013).

Limit fundamental equilibria, due to the different types of deterministic chaos arise through self-organization, and cover all levels of the hierarchy of the world. For example, humanities need this coordinate system because its knowledge criteria are very vague, despite of their cognitive and digital approaches. A natural coordinate system of the world is recognized by various thinkers throughout the history of humankind development. The special importance for this is the experience of ascetics, hesychasm, apophatic theology, and the concept of «epoche». The most complete definition of the coordinate system is given in mathematics, astronomy, and geography. Examples of coordinate systems can be considered as inertial systems in mechanics, quasistatic processes in thermodynamics, the coordinate system based on fundamental physical Planck constants (Kozhevnikov 1993).

The coordinate system is based on the equilibria of dynamical chaos, created by specific natural or cultural things, through the inertial part of the essence, energy and rhythms that can be balanced. The result is a cell of dynamic equilibrium («cell interconnection») the system of coordinates and this thing. The coordinate system has no location or any spatial-temporal constraints; it exists in every part of the world, at all levels of its organization. The coordinate system

interacts only with open natural or cultural things, with a tendency towards self-development and dialogue. This coordinate system highlights the passive part, the aggregate limits (attractors), in relation to which the rest of nature is the processes of self-organization (Kozhevnikov 2006).

The originality of the approach developed is that through fundamental relative equilibrium, we «close» prior and unknown to us the parts of the world, leveraging the existing processes «limit boundary surfaces» such as «vacuum», «inertial system», «quasi-static process», «spirituality» (Kozhevnikov 2011). «On top» of them remain only fundamental equilibrium value of available research, which is responsive to the processes of the unknown parts of the world. As is known equilibrium parameters of the vacuum, inertial systems, quasi-static processes, and spirituality identified good enough.

CAPABILITIES OF THE WORLD COORDINATE SYSTEM IN NATURAL SCIENCES AND HUMANITIES

«A limit boundary surface» corresponds to the vacuum (fixed state of quantum fields with minimum energy, zero-momentum, angular momentum and electric charge and other quantum numbers) «closing» all unknown to us a part of the world, provides the equilibrium sustainable existence of the vacuum. Properties of «vacuum» define the properties of all the major states of the world, leading to the emergence of quantum fields, which in modern science is the most fundamental and universal form of matter, the basis for all of its concrete manifestations (“The Vacuum” 1988). All elementary particles are the quanta of certain physical fields, which continuously interact with each other. Thus, the vacuum can be considered as the simplest system of reference for the level of organization of the defined world’s elementary particles.

The next level of such «covered» deals with forming-established sustainable matter and the gravitational interaction. Parameters reference system for remaining on this «boundary surface-age» of the world is inertia and the mass as its measure; that allowed forming ideas about inertial systems, as a basis for all other more complex systems of reference of the level of world organization. Another «limit boundary surface separates the complex macrocosm of objects; each consisting in a huge number of particles and being characterized by the thermodynamic equilibrium» (Putilov 1971, 23). At this level of the hierarchy of the worldviews of equilibrium is associated with the

concept of «deterministic (dynamic) chaos». «A limit boundary surface» of life leads to the formations of complex self-organizing systems, molecular chains, and preliminary structures «prelife». For the soul level - individual matches identification level, and all social formations: a tribe, clan, and ethnic group - communication system through which people could survive. Modern philosophy, moving the knowledge inside of the investigated process, instead of a subject of classical philosophy focused on his person-dimensional complexes that are person in an ethical context.

Here man-dimensional personality corresponds to the identification limit, and man-dimensional complex – communication limit. Time life man-dimensional personality expanded compared with the ordinary individual, the existence of which ends with his death. The latter is a person, entered in the planetary problems of humanity. The existence of this person may be continued in the cells of the noosphere, or in a more General form in the cells in the coordinate system of the world. Next «limit boundary surface» is connected with the spiritual. At the level of a spiritual person, there are two ways to God: internal and external. The spiritual person has all his subsystems in harmony: the mind and the body are healthy; the subconscious mind is well organized and controlled by the consciousness, and the supraconsciousness (cultural codes, religion, ideology, traditions, ethnos, etc.) is humanistic and the equilibrium interacts with other subsystems. If these subsystems interact with each other by equilibrium ways in a person, the mind and the subconscious are closed to the «marginal border», over which remain the main parameters of spirituality: free will and cultural secular asceticism. Such cultural and secular ascetic is a bound state of all the intellectual, social, individual manifestations of personality, and is able to be the foundation of universal synthetic culture.

CAPABILITIES OF THE WORLD COORDINATE SYSTEM IN CULTURE

Ideas about the natural coordinate system of the world and its basic concepts: cells, layers, the fundamental limits can be greatly distorted. Absolutization of only one of the above-mentioned limits leads to the unstable equilibrium, which eventually will stop its existence and which will not be able to have long-term spatial, temporal and space-temporal coherence with the natural rhythms and other sustainable communities and the processes inherent to the various levels of

organization of the world. The cells in the «equilibrium-covers» can be regarded as cell of the following types: static (one or two limiting cell/s) and dynamic (three limiting cells). Using of these two type cells are artificially cases. One limiting cell let's just «catch» the natural coordinate system. Two limiting cells can be used in the consideration of static concepts. For identity of the «balance-bedspreads» static cells based on the identification and communication limits. Three limiting cells allow the use of natural coordinate system at research of dynamic processes. The example of the formation of artificial cells, a kind of simulacrum natural coordinate system can serve as a University environment in the Middle Ages. On the one hand, it has been a process of self-identification, but it was not the result of self-organization of individual (person). In the process, everything was set to be like God (the principle of Absolute). On the other side, there was a clear focus on limit rhythms: a common language (Latin), public theses that lasted sometimes for several days, rapid crowded debates, etc. However, all these social formation and communication system also corresponded to certain predefined rules. In the result, the cell is creating artificially, and self-organization is excluded by purpose.

Communication limit has absolutization too. It is widely used in the social sphere; when a particular community of people gathered on some characteristic alone claim to be the most correct, for example, the most close to God, or followers of the true teaching. This is a very powerful temptation, which makes life easy and comfortable. The most prominent examples are the Orthodox directions in the religions of primitive approaches in an ideology (Kozhevnikov 2013, 419).

Natural coordinate system is closely connected with the destiny in a person's life. With it once is enough to engage in sustained interaction and further it just expands and deepens, well, expressed, for example, in existential prayer, where man brings life to sacrifice its purpose, so that the person can be defined as «the willingness to sacrifice». Follow it, even when the aim is not feasible. The ancient Chinese believed that the philosophical concept, then, is true only when it is embodied in the life of its Creator. This corresponds to the pursuit of a life in accordance with the rhythms of the natural coordinate system. In addition, many thinkers, prophets emphasized that the right to a fate is not given to everyone, but only to the elect ones.

Natural coordinate system appears to us as «tabula rasa», although in fact it organization is rather complicated. This coordinate system is pure being, the perfect design of all possible limiting conditions, which

may not blend with the natural and cultural things, but natural processes periodically interact with it in accordance with its internal rhythms. The coordinate system should be opened directly and be available to everyone. The interconnected system of dynamic equilibrium is possible to reach, developing sensual submission or using theoretical models of sciences or the «emptiness» of Taoism or religious experience of the ascetics. Every individual may interact with different levels of coordinate system: personal, relevant to the culture of their ethnic group, planetary, etc. Finding the relationship with the coordinate system starts with the ability to listen to the quietness of myself, finding fundamental mood to begin the process of cognition, touching various kinds of «emptiness» - in this way the individual forms of the original cell natural coordinate system. It «meets» the individual, involving them in their self-organization and development. The search for natural coordinate system does not mean that aspirations to identify a universal philosophical category or concept. It is about the study of the unity of the benchmarking processes and phenomena at different levels of structural organization of the world. This matches one of the main principles of synergetic claiming that the processes of the creation (of growing complexity and order) has a single algorithm, regardless of the nature of the systems in which they are carried out.

However, our approach considers the unity of the algorithms of these processes in their interactions with the natural coordinate system, which cannot be comprehended within a single principle or one idea; it gradually becomes clearer as you use it. To start this awareness, it can be with any phenomenon (religious, artistic, scientific), as everyday processes at any time. This correlates with the concept of autopoiesis in modern philosophy. Autopoiesis is a process of generation of the elements of the system itself as something different from the surrounding world, the natural «seeding» of this system. Autopoiesis interactions can be identified everywhere: in animate and inanimate nature, humanitarian and social spheres, etc. Modern philosophy has moved the knowledge inside of the investigated process, without which the existence of a natural coordinate system would be impossible and develop ideas about human-dimensional complex. The last definition has many facets, as this is a man in the context of ethics. Human-dimensional personality corresponds to the identification limit, and man-dimensional complex to the communication limit. Time life man-dimensional personality expanded comparing with the ordinary

individual, the existence of which ends with his death. The last one is a person, entering in the planetary problems of humanity and being concerned with these issues. The existence of this person may be continued in the cells of the noosphere, or in a more general form in the cells in the coordinate system of the world.

THE INTERACTION OF THE NATURAL AND THE ARTIFICIAL THINGS BASED ON THE COORDINATE SYSTEM

The interaction of the natural and the artificial based on the coordinate system described above should be considered at several levels of human activity (local, mesa-level, universal) in several key areas: culture, science, and philosophy.

Thus, it is necessary to allocate subsystem technogenic world and the information world. All these interactions are shaped by the same principle - are highlighted cell identification investigated natural and cultural things, then revealed a common system is the full lifetime of these cells and systems. Communication with unattainable fundamental limits can be performed through spatial-temporal coherency and corresponding rhythms. For culture and cultural-civilization systems, basic research levels correspond. 1) For the level cultural code: identification limit are the elements of the cultural code, communication limit - cultural code in General. 2) For the ethnic level: identification limit is the fundamental unit of the ethnos and the basic structure of the ethnos, communication limit - ethnos as a whole. 3) For the planetary level: identification limit corresponds to the key subsystems of a planetary level (cultures, civilizations), communication limit is the planetary civilization as a whole. All these codes and cells are self-organization-identification cores of culture. In today's global world, every culture undergoes two core trends. On one hand, they should self-identify clearly its borders, characteristics, to become transparent to representatives of other cultures. On the other hand, they should facilitate integration of humankind.

An appropriate culture to the needs of the modern man must be a network, and traditional culture should be part of the elements emerging on their base system. All cultures must be tolerant, a mystery gum oriented, and unique. All cultures must strive to identify themselves. Their totality could become a foundation of a global reality, gradually transforming into a synthetic universal culture, so that all specific to different peoples is already a «superstructure» of it. The dissolution of a person in networks culture is knowingly,

voluntarily, but it is the only way for the individual to maintain their real existence. «Human network» is the nearest step in the evolution of man and humanity; it is largely determined by the self-organization of the world and all its ontological areas (non-living, living, mental, spiritual). For science and philosophy basic research levels correspond.

- 1) The local level: identification limits as special terms of language, communication limits as special language in general.
- 2) The meso-level: identification limits as main ideas, and communication projects.
- 3) The universal level: identification limits as universal concepts, and communication of a special scientific picture of the world.

All the above specify the orientation for the formation of artificial and information spheres on the model of the natural non-living things. This orientation can be used for the organization of «green technologies» instead of «grey» ones.

To the synthesis of natural and artificial knowledge is more important-leading applications a natural coordinate system of the world are: do spiritual and intellectual catalysts, peculiarities of formation of the cultural-civilizational systems, interaction of socio-humanitarian and natural science knowledge, the development of concepts of modern universalism. Spiritual-intellectual catalysts needed to humankind will perish if you will not use them in very large scale. Only such catalysts will allow coping with the excess of information, including with overtly harmful, the volumes of which are currently far exceeds the information useful, as well as with simulacra, the distribution of which assumes the character of an epidemic. We can distinguish three types of catalysts: identification of any “thing” and the process, linking it to a sustainable system view on these processes and phenomena «from eternity» - from the point of view of time exceeds the time of their existence. A view of the development of cultural thing (inside, outside and from the point of view of «eternity») has a significant catalytic effect of accelerating the processes of cognition. The important factor in the coherence of the true concepts is a natural coordinate system of the world.

THE INTERACTION OF THE HUMANITIES AND NATURAL SCIENCES ON THE BASIS OF THE COORDINATE SYSTEM

Synthesis of knowledge should be based on the unity of mechanisms of interaction of humanities and natural sciences with coordinate system. The objective part of humanitarian knowledge can be tested by using the same algorithms natural-science knowledge. Humanities have a

range of opportunities for the provision of specific mechanisms to implementing these algorithms, and the more so dynamic and especially network equilibria provide the vast diversity. A person participates in the formation of such a coordinate system, as the only person able to develop its spiritual level, and the synthesis of natural sciences and humanities to contribute to this process.

Interaction of humanities and natural sciences knowledge should be based on modern fundamental ontology, according to which every object exists as a subject only insofar as it relates to the «issue» and it is presented as the answer to this question. The first step is the study of fundamental ontology as a formal representation of the structure of questioning, the structure of the question of «being» (Heidegger 1993). When the researcher uses approaches and methods of fundamental ontology, the problem of «being» itself retreats for him on the second plan, putting forward the plan of the first ways of «constructing» ontological structures, and concrete definition. Ontology natural coordinate system is closely intertwined with the scientific-governmental pictures of the world; in the foreground, there is the integrity of the surrounding world and interacting with the person. On the basis of the study processes, ontological objects of the surrounding world can be put: spheres, layers of the real world and complex layered structure of things: network, providing formation of the basic types of equilibria: static and dynamic; a natural coordinate system based on three fundamental limits.

All designed metaphysics picture of the unity of the world has significant flaw regardless if it was from the matter or from the consciousness of the spirit, in the bottom-up flux. A natural coordinate system of the world is not artificially constructed. What is revealed in the course of its research is a system of fundamental laws of the structure of the world. The universalism of modern philosophy may not rely on a separate representation of the world, and is characterized by a set of them. The last has a certain hierarchy and laws of development, forms a connection between knowledge and reality, between natural and artificial processes. Hierarchy representations allow avoiding a clash of antagonistic scientific approaches and concepts, as well as human activities. The modern universalism is no single reason, but it must be linked with the natural coordinate system based on limit of equilibria (Kozhevnikov 2008, 438).

The use of natural coordinate system opens a new path for «expanding science» using each of the concepts and approaches of

science, religion, philosophy. The synthesis of various philosophical traditions in modern conditions allows distributing it on the philosophical ideas of the West and East. In the framework of the non-classical stage of development of philosophy of the East tradition focuses on modern bases of harmony, for which it was designed and always aspired to many philosophers of India, China, countries of the Arab world. Through the idea of ancient Chinese and Indian philosophies, we can consider the great equilibrium, the global harmony. Postclassical philosophy proposed as the basis for universal unification of Western and Eastern traditions planetary and human being, based on interrelated earth shell. In addition, the synthesis between the Eastern and Western thought provided the development of concepts of the cultural asceticism and cultural networks, planetary thinking. Based on the natural coordinate system of a modern universal conception, new opportunities are finding, and we can synthesize realms of consciousness, of human activities, and the corresponding self-organization processes of all cultures and traditions.

In the epistemology of natural coordinate system, the determining role belongs to the processes aimed at ensuring the integrity of thinking, which contributes to the development of the following important trends: 1) to eliminate sharp opposition between scientific and non-scientific knowledge and thinking, so all the mental-spiritual things which go beyond the current knowledge but are able to interact with the system of coordinates can be discussed under this epistemology; 2) to disclose opportunities for dialogue and interpersonal communication - there is a new type of reflection, which can be regarded as the inverse relationship between human consciousness and the coordinate system; 3) to change value-cognitive installation, which is becoming oriented to sustainable relationship with a coordinate system; 4) to verify the scientific concepts of complex systems carried out only when these concepts have a stable relationship with a coordinate system. Many categories of epistemology are closely related with other categories of ontology and axiology, as well as with the categories of culture of the information society. This is due to the close interconnection of the natural coordinate system with human's most complex formation of all existing in the world, which initially was not inherent in the selection of consciousness, existence and values in separate spheres of knowledge. The boundaries between these fields are becoming vaguer and they do not correspond to the realities of our time. The use of

natural coordinate system enhances the analogy between processes in the ontological and epistemological spheres that is especially effective in the social sciences and humanities; finally; 5) in our epoch humankind must begin to live in a natural coordinate system; the responsibility of our generation, its pathos, is to protect the processes of forming a natural coordinate system and its realization.

Sustainable relationship of human and humankind from natural coordinate system is a necessary condition of their further development. Only in this case the humankind does not destroy the biosphere and the Earth and can develop in harmony, optimally and almost indefinitely.

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