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The principle of parity at the stages of the systemic metamorphosis of the living beings

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Summary

The author considers the violation of the parity principle in the context of his own theory of the systemic metamorphosis of living beings. The system features of the manifestation of this phenomenon are noted. A correlation was found between the manifestation of the parity principle and the level of the body's security. The prognosis of the systemic development of living beings in the next stage of phylogenesis is presented.

Keywords: parity principle, phylogenesis, systemic metamorphosis, system input, system output, security.

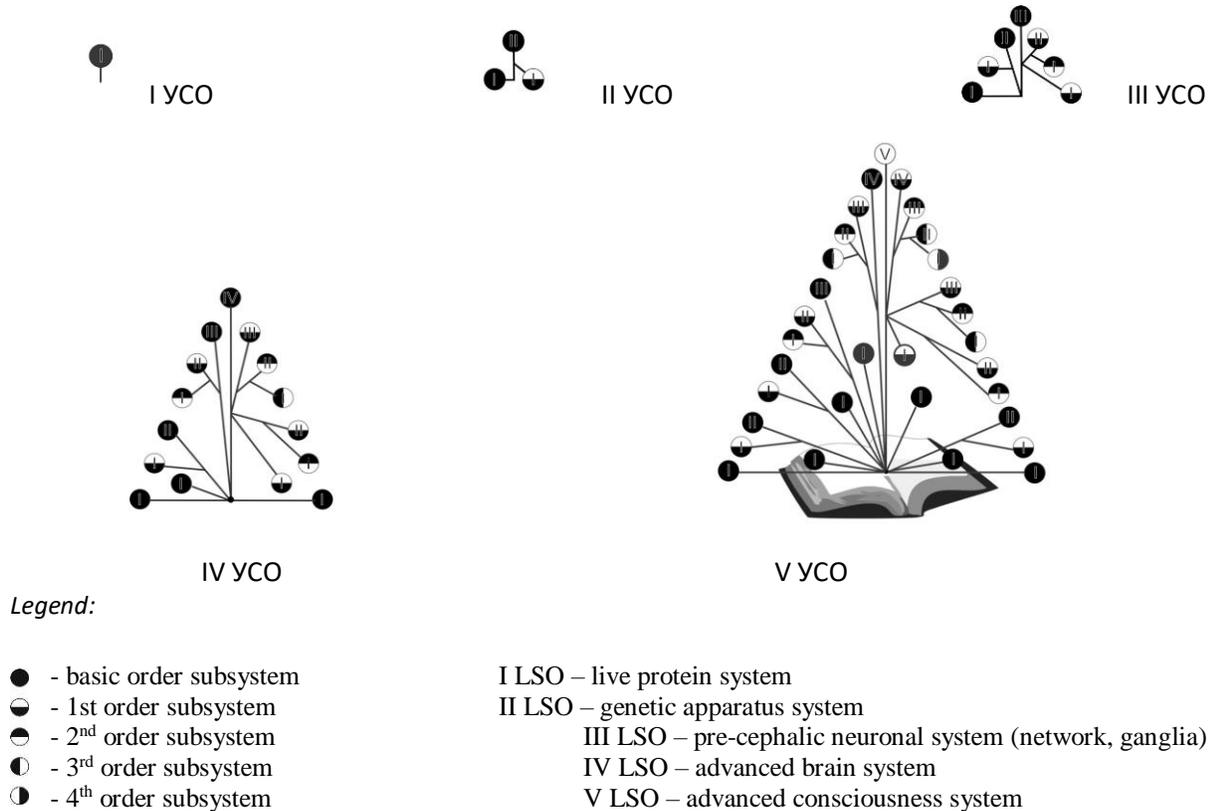
The phenomenon of systemic metamorphosis at the stages of phylogenesis

The concept of parity is one of the main characteristics of the wave function, which is competent to consider in relation to living systems. They can be represented in the context of spatial parity. This circumstance has in addition to theoretical value, the possibility of practical use in biology and medicine. Ultimately, all life processes have a wave nature, which manifests itself in various phenomena. Some of them are fundamental to the living things. First of all – it is a systemic metamorphosis [7, 8]. This concept expressing the content of phylogenesis, proposed (2015) V.V. Revo. Systemic metamorphosis differs from evolution and homeoeresis. It is transcendental in nature and has no intermediate forms, since they are impossible by definition between organisms of different levels of systemic organization. For example, it is impossible to obtain an intersystem chimera from microorganisms (this is the genetic level of the systemic organization (II LSO) with insects that have a nervous apparatus (these are LSO III organisms), from fish (these are LSO III organisms) with higher primates (these are LSO IV organisms), etc. The number of large taxonomic groups with a new basic information mechanism, which appeared at the next stage of phylogenesis, is exponentially decreasing in comparison with the previous stage. This compensates for the appearance of additional degrees of freedom in them. Thus, systemic metamorphosis is both a reducing and productive process, since the emergence of a new basic systemic mechanism in new taxa increases the systemic diversity of the living in the biosphere. This reduces its entropy.

Model of systemic metamorphosis at the stages of phylogenesis

J.W. von Goethe presented (1788-1795) in his observations the metamorphosis of plants and animals as different variants of the continuous development of only certain morphological structures of the whole from some initial form. He represented them as "proto-plants" for plants and "proto-animals" for animals. According to the system concept of V.V. Revo [2], systemic metamorphosis had five stages. Each stage is characterized by the emergence of living forms with a fundamentally new invariant basic information mechanism (see Fig.) [4, 5]. V. Turchin proposed in the 70s of the XX century "The theory of metasystem transition", which is close to systemic

metamorphosis in form, but not in content [11]. Turchin believed that the moment of the appearance of a new level of the systemic organization of living beings (LSO) defines a some “internal impulse”. However, we have every reason to assert that this is an external impulse, the nature of which is transcendental [6]. Perhaps this is due to the anisotropic heterogeneous nature of our space-time.



Roman numerals indicate the levels of system organization (LSO) of the basic information mechanism of living beings. The elements of the left half of the system models of the living beings make up the apparatus of the system input, which provides reflection in the system itself and the environment. The elements of the right half of the system models of the living beings make up the system output apparatus, which provides a reflection of the system in the environment. The balance of their activity determines the security of the system.

Fig. The systemic structure of the living beings on the stages of systemic metamorphosis [4, 5].

Space-time fluctuations and systemic metamorphosis

The law of conservation of energy and momentum makes the results of experiments independent of the time and place of their conduct. However, this was not confirmed by the long-term experiments of S.E. Shnol and his colleagues. They showed that the passage of the Earth through regions in which noticeable fluctuations of space-time are noted, affect the experimental results [10]. The critical value of the oscillations space-time determines the appearance of a new, phylogenetic next stage life. The reverse process is impossible according to the law of Dollo

(1893). This phenomenon has no duration. It also has no predictors for such a transformation, which corresponds to the first-order phase transition. I define this phenomenon as a systemic metamorphosis in those taxa that give a living to the new LSO. At the same time, the structural elements of the system input of organisms of the previous stage of phylogenesis are included in the structure of the system output of organisms of the new stage of phylogenesis. These circumstances distinguish the theory of systemic metamorphosis from the theory of discontinuous equilibria [1], which suggests a second-order phase transition. I believe that a certain force, which I called the “demon of systemic metamorphosis,” does not so much violate the phylogenetic stability, as it reveals the development resource of some selected taxa.

Manifestations of the law of conservation of parity at the stages of systemic metamorphosis

Beginning with the organisms that appeared in the second stage of the systemic metamorphosis of the living, a violation of the law of the preservation of parity, i.e., independence from the mirror image, appears (see fig.). In the systemic structure of the system output, the elements of their mirror incarnation now not only perform the opposite function, but also lose one rank position of their systemic status. For example, if in the structure of the system input it was the basic element of the system, then in the structure of the system output of the organisms of the new LSO, it receives the status of a first-order subsystem; if in the structure of the system input it was a subsystem element of the first order, then in the structure of the system output of the organisms of the new LSO it acquires the status of a subsystem of the second order, etc. This model of systemic metamorphosis illustrates the violation of the law of conservation of parity, which is manifested in the elements of the system input when they are transformed into the structure of the system output at the time of the transition of the system to the phylogenetically next level of systemic organization of living beings [9]. Structural elements of the system input change their sign in the system output structure. The systemic structure of the living beings of IV LSO, which appeared at the fourth stage of phylogenesis, received two new internal systemic elements. They have the same system level, but different system rank. Living being of V LSO (i.e. *Homo sapiens* L.) has received three internal system elements in the structure of the system input and three in the structure of the system output. This trend indicates an increase in the systemic potential of the system output in the structure of a living organism. This increases the likelihood of the manifestation of the law of conservation of parity. These circumstances increase the resistance of the system to a tectologically hostile environment.

The forecast for the living, for which the epithet "sapiens" is not a speech figure

Living creatures that appear in the next phylogenetic stage will have greater opportunities to ensure their own safety than *Homo sapiens* L. had. Thus, the prospects for a living VI LSO – i.e. of the next phylogenetic stage is encouraging. But the fate of *Homo sapiens* L. at this stage is problematic due to the increasing divergence of the humanitarian sphere and natural sciences. So, at the first stage of phylogenesis, the law of the preservation of parity manifested itself in the systemic structure of the first living things (I LSO) without exceptions. They manifested themselves in two subsequent stages of systemic metamorphosis. These manifestations have decreased in the systemic structure of organisms IV LSO. The systemic structure of living being V LSO showed an increase in this trend. The was provided by new elements of the internal structure of the system output (see fig.). The current stage of phylogenesis is the last stage of the first metaphase of the systemic metamorphosis of living Nature [3]. Perhaps the first stage of the second metaphase of the systemic metamorphosis of living beings has already arrived, but for humans this level of

organization is transcendental in nature, as determined by the K. Gödel incompleteness theorem (K. Gödel, 1931). This is one of the manifestations of the principle of systemic insufficiency. L.N. Tolstoy interpreted this principle (1885) as follows: "... phenomena associated with the internal structure of man cannot be observed, because than would be to observe them? Material phenomena are accessible to experience, spiritual phenomena are not. The soul would then have to look at itself as if in a mirror and catch its reflection in it, but is it possible?"¹

The demon of systemic metamorphosis and its problem of choice

It is possible that today on Earth a form of life of the next level of system organization (VI LSO) has already appeared, but man is not able to notice and correctly to formalize it. In this case, new diseases should appear with a new basic mechanism at this stage of systemic metamorphosis. I have shown that the systemic metamorphosis daemon selects models from previous forms. Today he has no choice, since there is only one prototype – the modern man. True, he performs in several racial hypostasis. We cannot predict the choice of the demon. He is not a racist, to give preference to any one race. Living creatures that appear in the next stage of systemic metamorphosis will receive a more powerful both general and internal systemic resource. This will reduce tectological hostility within the community. This hostility will also be reduced in relation to the environment. A significant increase in the system resource of the internal elements in the system output of the living being will further reduce the manifestations of violations of the law of parity conservation.

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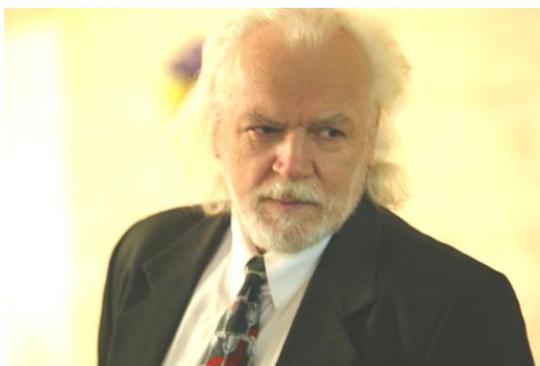
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Valeriy Revo (born 1940) – MD, PhD, (Dr Med, 1980), Professor. For 25 years he worked as a surgeon (oncology and reconstructive surgery of the region of the head and neck organs). More than 10 years he led the research laboratory of systemic mechanisms of life and diseases in the system of the Academy of Sciences of the USSR, for more than 10 years on scientific and teaching work in the field of environmental management and environmental safety. The author of the fundamental systemic concept of the development of information

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