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# INFORMATION ON THE INFORMATION. SYSTEMS TRANSDISCIPLINARY ASPECT

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# ИНФОРМАЦИЯ ОБ ИНФОРМАЦИИ. СИСТЕМНЫЙ ТРАНСДИСЦИПЛИНАРНЫЙ АСПЕКТ

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**ABSTRACT**

This is the first of three articles that introduce readers to models of a systems transdisciplinary approach. The subject of this article is a brief theoretical justification of the systems transdisciplinary model of the information unit of order, as well as a description of some areas of its practical application. The author presents an alternative view of the problems of information, the dialectic of quantity and quality through the question of transdisciplinarity. He develops his statements within the framework of a philosophical metaphorical methodological approach. The author's position offers certain ways for further philosophical discussion. The specific examples in the text are largely metaphorical and require a disciplinary approaches for their further interpretation.

**АННОТАЦИЯ**

Это первая из трех статей, которые знакомят читателей с моделями системного трансдисциплинарного подхода. Предметом данной статьи является краткое теоретическое обоснование системной трансдисциплинарной модели информационной единицы порядка, а также описание некоторых областей ее практического применения. Автор представляет альтернативный взгляд на проблемы информации, диалектику количества и качества через вопрос трансдисциплинарности. Он развивает свои утверждения в рамках философского метафорического методологического подхода. Авторская позиция предлагает определенные пути для дальнейшего философского обсуждения. Конкретные примеры в тексте во многом метафоричны и требуют дисциплинарных подходов для их дальнейшей интерпретации.

**Keywords:** transdisciplinarity, systems transdisciplinary approach, systems transdisciplinary model of informational unit of order.

**Ключевые слова:** трансдисциплинарность, системный трансдисциплинарный подход, системная трансдисциплинарная модель информационной единицы порядка.

## Introduction

The complex problems of modern society require an immediate solution. In such a situation, approaches that can solve these problems will be born, first of all, as a result of successful conceptual research in the field of systems approaches. Conceptual research can be regarded as rigorous if its logic is consistent and if it can be rationally justified. Conceptual research is important in science to challenge normal scientific presuppositions and approaches by proposing new theoretical vistas that may be tested empirically in follow-up work (Kroeze, Travica, & Zyl, 2019). Without the standard attributes of classical scientific disciplines, new systems approaches will not be able to enter the classification of scientific approaches. Therefore, they run the risk of becoming marginalized. Therefore, the systems transdisciplinary approach is initially endowed with all the attributes of a scientific discipline (meta-discipline): philosophy, concept and methodology.

The concept of a systems transdisciplinary approach is based on unicentrism. In a broad sense, unicentrism is a position in philosophy and science on the problem of the relationship between the One and its fragments. This position is based on the existence of the General order that determines the unity of One Orderly Medium (Mokiy, 2009).

Since the order that determines the unity of the world is general, the models of spatial, informational and temporal units of order are isomorphic. Simply put,

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they show a General order in the structure of fragments of space, attributes of information and periods of time. Consequently, systems transdisciplinary models of the spatial, informational and temporal units of the General order allow studying different aspects of an object in one context.

The subject of this article is a brief theoretical justification of the systems transdisciplinary model of the information unit of order, as well as a description of some areas of its practical application.

**Philosophy of information**

The term "information" is ubiquitous in science. A general definition of this term was formulated by Norbert Wiener. He wrote: "Information is a designation of the content received from the outside world in the process of our adaptation to it and the adaptation of our feelings to it" (Wiener, 1958). This definition of information contributed to the division of scientists into functionalists and attributeists. Functionalists associate information only with the functioning of self-organizing systems. Attributeists qualify information as an integral property of all material objects, that is, as an attribute of matter (Abdeev, 1994). In the concept of a systems transdisciplinary approach, information is the *form of the manifestation of the potency* of the One Orderly Medium (OOM). Potency is the prospective futurity of the One Orderly Medium. This definition of information smooths out the confrontation between attributeists and functionalists. Information, as a form of manifestation of potency, is directly related to the attribute of the world, and the designation of the content of this attribute. In this case, the OOM is freed from the dictates of the observer. It in a single context determines the information that will be reflected (shown without distortion) and displayed (reproduced in specific images) by all observers (objects) at all levels of reality. The above suggests that the reflection and display of the OOM information by objects of animate and inanimate nature is a necessary condition for maintaining the unity of the OOM itself. Consequently, the process of knowing the world by man is a natural phenomenon. Therefore, the process of knowing the world, as well as the formation of the results of this knowledge, is also subject to the General order that determines the unity of the OOM.

**Generic and species definitions of information**

Generic systems transdisciplinary definition of information - a form of manifestation of the OOM potency, forms two main branches of its species definitions. The basis of the first branch is the following definition: information is the designation of the state of the OOM potency. Thanks to this definition, it becomes possible to use various versions of systems transdisciplinary models of informational unit of order (static, dynamic, spherical, etc.) as a designation of information. The basis of the second branch is the following definition: information is the designation of the content of the OOM potency. This definition allows moving from logical-geometric models of information to its logical-semantic models. The following species definition allows for such a transition: information is a combination of quantitative and qualitative parameters and characteristics of the OOM in their internal relationship (Mokiy, & Lukyanova, 2021b). All definitions that affect the design and organizational features of the OOM relate to the first branch of information definitions. Definitions affecting the content of the OOM are assigned to the second branch of information definitions. Most of the existing definitions in their content relate specifically to the second branch of information definitions.

**Categories quantity and quality in the concept of unicentrism**

In the concept of unicentrism, there is a distinction between the form of manifestation and the process of potency manifestation. The form of manifestation represents the structure of the types and attributes of complete information that are related to the structure of fragments of the OOM space. Space is a form of existence of potency of OOM. The process of manifestation demonstrates the structure of types and attributes of complete information that is relevant to the time. Time is a form of transformation of manifest potency. Thus, the information logically combines the space and time of the OOM. Accordingly, systems transdisciplinary models of informational unit of order are manifested in two aspects: potential (static) and kinetic (dynamic).

A potential aspect allows simulating the structure of complete information through its main types and attributes. The kinetic aspect allows simulating the structure of the main stages of the manifestation of complete information. Due to such content of potential and kinetic aspects, the manifested potency of each functional ensemble and each object is revealed by a strictly defined "spectrum" of possibilities. Figuratively speaking, the OOM itself, its functional ensembles of objects and the objects themselves can become what they should be to manifest and implement what they should manifest and implement. The attempt to understand and explain such a "spectrum" of possibilities belongs to the philosopher Aristotle. A thing (object), from his point of view, is first of all that "became to be" or "was becoming to be". A thing should become not just "something at all", but something quite definite, definite as "something". This literal translation of the original Aristotelian term indicates that the idea of a thing is the answer to the question of what this thing is and that its generalized significance, without which it would have completely lost all meaning (Losev, 1998).

In the concept of unicentrism, the categories of quantity and quality in their natural combination act as complete information. Complete information is a set of types, subspecies and attributes of information showing state and / or content of the object potency. Information of a quantitative type is a form of manifestation of the potency of an object, characterizing its state and/or content from a position of magnitude. This type of information includes characteristics that describe the subject essence (material component) of the object. Information of a qualitative type is a form of manifestation of the potency of an object, characterizing its state and / or content from the position of the essential properties and

functions of. By definition, this type of information includes characteristics that describe the properties and functions of an object. Therefore, the information of two types is only conditionally allocated during the study of the object.

**Structure of the Systems Transdisciplinary Model of Informational Unit of Order**

The systems transdisciplinary model of informational unit of order in its static aspect is presented in Figure 1.

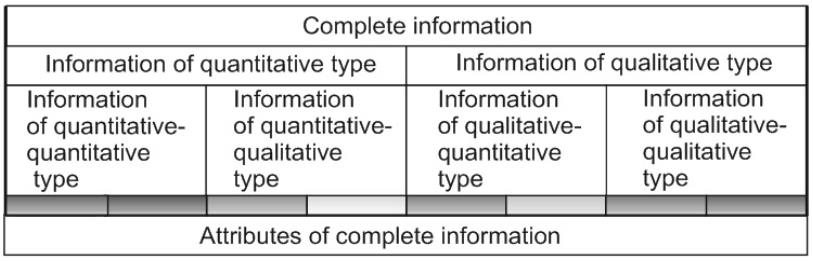


***Figure 1. Systems transdisciplinary model of informational unit of order***

Complete information in this model is represented by its two main types: Information of quantitative type and Information of qualitative type. Each main type of information is represented by two own types. In the model, these types of information form a well-known sequence: Information of quantitative-quantitative type, Information of quantitative-qualitative type, Information of qualitative-quantitative type, and Information of qualitative-qualitative type. Each of the four types of information is represented by two own attributes of information, which, in essence, are attributes of complete information. (For the model of complete information to be convenient in practical use, a specific color is assigned to each attribute of information). This made it possible to use the term "full range of information" in the vocabulary of generalists.

Each type and attribute of information has its carriers. Depending on the level of reality, the role of information carriers can be played by objects and their functional ensembles; processes with their participation; characteristics and/or parameters of objects, functional ensembles and processes.

Each scientific discipline produces a "disciplinary cut" of the complete information of the object. The systems transdisciplinary model of informational unit of order makes it possible to generalize disciplinary information and present it in the form of a corresponding parametric table. The main criterion for generalization disciplinary information within the framework of a parametric table is their logical correspondence to the types and attributes of information of quantitative type and information of qualitative type.

**Examples of Systems Transdisciplinary Generalization of Disciplinary Information. Parametric Tables**

In each case, the type determines the context (types or attributes of complete information) within which a systems transdisciplinary generalization of disciplinary information occurs:

- the content of economic categories in the context of two types of information. An example of a systems transdisciplinary parametric table of capital based on its disciplinary classification is presented in Figure 2.

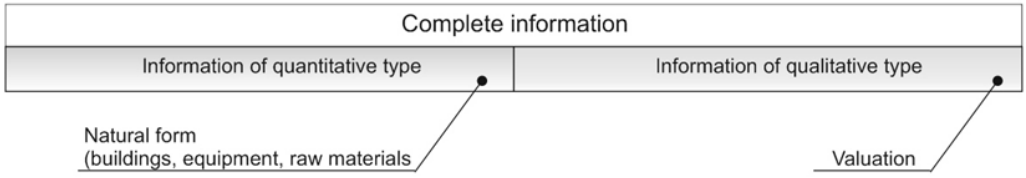


***Figure 2. Parametric table of contents of economic categories (capital)***

- types of human temperaments (according to Hippocrates) in the context of four types of complete information. An example of a systems transdisciplinary parametric table of human temperaments based on their disciplinary classification (Ekstrand, 2012) is presented in Figure 3.

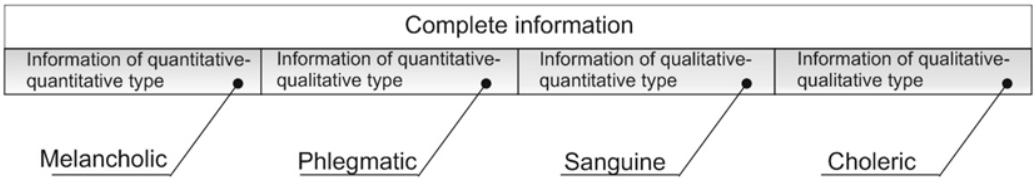


***Figure 3. Parametric table of human temperaments***

- the radical nature of changes in the implementation of innovations in the economy in the context of attributes of complete information. An example of a systems transdisciplinary parametric table of types of innovations based on their disciplinary classification (Vodachek, & Vodichkova, 1989) is presented in Figure 4.

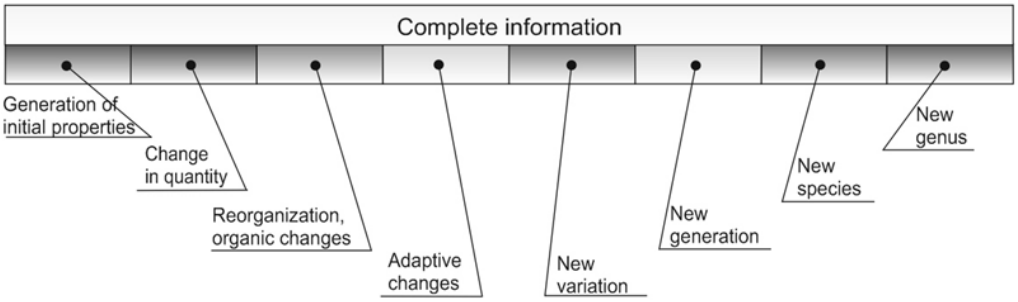


***Figure 4. Parametric table of innovation in the economy***

- change in the state of aggregation of water, depending on the connection with the surface of the substance in the context of attributes of complete information. An example of a systems transdisciplinary generalization of water types based on their disciplinary classification (Babkov, & Bezruk, 1986) is presented in Figure 5.

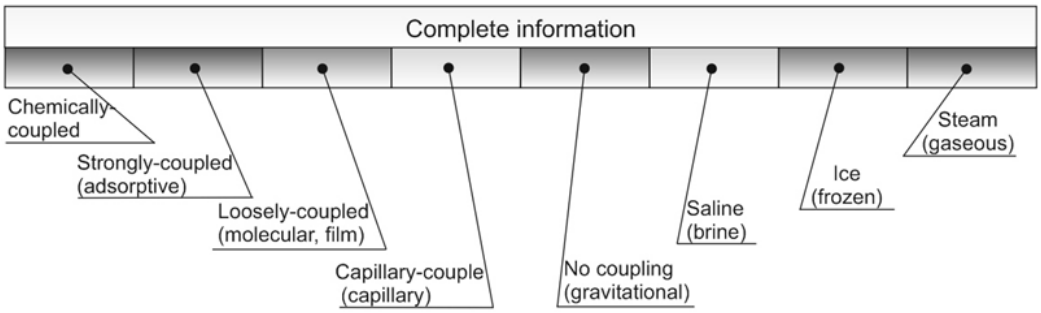


***Figure 5. Parametric table of water types***

- an increase in the volume or weight of soil particles in the direction from clay particles to boulders in the context of attributes of complete information. An example of a systems transdisciplinary generalization of soil particle types based on their disciplinary classification (Babkov, 1986, p.24) is presented in Figure 6.

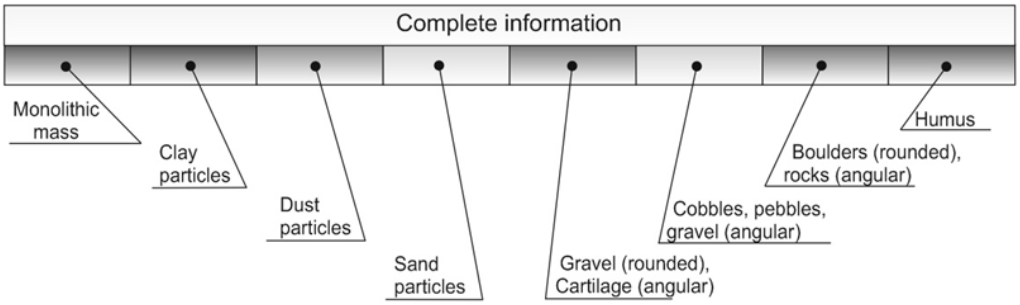


***Figure 6. Parametric table of soil particles***

In nature, as in a systems transdisciplinary parametric table, components, elements, fragments related to one type and attribute of complete information have a logical connection. Therefore, if in the process of solving a complex multifactorial problem it becomes necessary to use information from other disciplines, the process of their further generalization will be similar to the example shown in Figure 7.

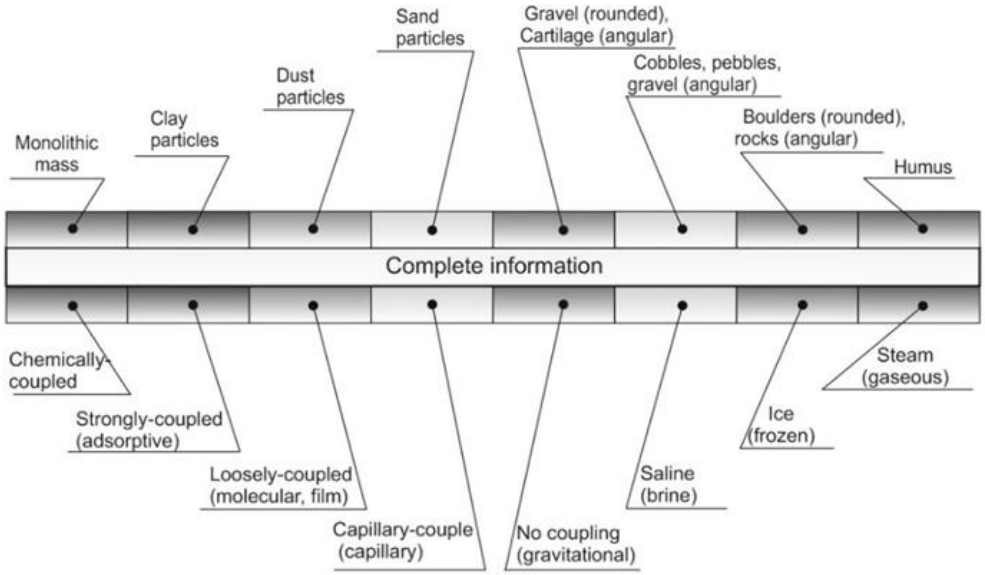


***Figure 7. Formation of a systems transdisciplinary information field***

In this case, the information of the disciplines, previously summarized in the parametric tables, are combined into the so-called systems transdisciplinary information field. Such a field, if necessary, allows analyzing in one context the information of disciplines that do not have a direct logical connection between themselves, for example, soil science and psychology, sociology and botany, economics and chemistry, etc. In a certain sense, the model of a systems transdisciplinary information field is associated with the idea of the "configurator" of the American psychologist and mathematician, V.A. Lefebvre. This scientist sought to synthesize in a single system model one-sided theoretical ideas about the object, obtained by studying it in various disciplinary "sections" (Lefebvre, 2003).

- an increase in the main parameter within the horizontal functional ensemble of objects in the context of attributes of complete information. An example of a systems transdisciplinary parametric table of chemical elements based on their disciplinary classification is shown in Figure 8.

| Complete information | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Group I (Warm Colour Tones) | | | | Group II (Cold Colour Tones) | | | | |
| H 1 HYDROGEN | He 2 HELIUM | Li 3 LITHIUM | Be 4 BERYLLIUM | B 5 BORON | C 6 CARBON | N 7 NITROGEN | O 8 OXYGEN | |
| F 9 FLUORINE | Ne 10 NEON | Na 11 SODIUM | Mg 12 MAGNESIUM | Al 13 ALUMINUM | Si 14 SILICON | P 15 PHOSPHORUS | | |
| S 16 SULFUR | Cl 17 CHLORINE | Ar 18 ARGON | K 19 POTASSIUM | Ca 20 CALCIUM | Sc 21 SCANDIUM | Ti 22 TITANIUM | | |
| V 23 VANADIUM | Cr 24 CHROMIUM | Mn 25 MANGANESE | Fe 26 IRON | Co 27 COBALT | Ni 28 NICKEL | Cu 29 COPPER | | |
| Zn 30 ZINC | Ga 31 GALLIUM | Ge 32 GERMANIUM | As 33 ARSENIC | Se 34 SELENIUM | Br 35 BROMINE | Kr 36 KRYPTON | | |
| Rb 37 RUBIDIUM | Sr 38 STRONTIUM | Y 39 YTTRIUM | Zr 40 ZIRCONIUM | Nb 41 NIOBIUM | Mo 42 MOLYBDENUM | Tc 43 TECHNETIUM | | |
| Ru 44 RUTHENIUM | Rh 45 RHODIUM | Pd 46 PALLADIUM | Ag 47 SILVER | Cd 48 CADMIUM | In 49 INDIUM | Sn 50 TIN | | |
| Sb 51 ANTIMONY | Te 52 TELLURIUM | I 53 IODINE | Xe 54 XENON | Cs 55 CESIUM | Ba 56 BARIUM | La 57 LANTHANUM | | |
| Ce 58 CERIUM | Pr 59 PRASEODYMIUM | Nd 60 NEODYMIUM | Pm 61 PROMETHIUM | Sm 62 SAMARIUM | Eu 63 EUROPIUM | Gd 64 GADOLINIUM | | |
| Tb 65 TERBIUM | Dy 66 DYSPROSIUM | Ho 67 HOLMIUM | Er 68 ERBIUM | Tm 69 THULIUM | Yb 70 YTTERBIUM | Lu 71 LUTETIUM | | |
| Hf 72 HAFNIUM | Ta 73 TANTALUM | W 74 TUNGSTEN | Re 75 RHENIUM | Os 76 OSMIUM | Ir 77 IRIDIUM | Pt 78 PLATINUM | | |
| Au 79 GOLD | Hg 80 MERCURY | Tl 81 THALLIUM | Pb 82 LEAD | Bi 83 BISMUTH | Po 84 POLONIUM | At 85 ASTATINE | | |
| Rn 86 RADON | Fr 87 FRANCIUM | Ra 88 RADIUM | Ac 89 ACTINIUM | Th 90 THORIUM | Pa 91 PROTACTINIUM | U 92 URANIUM | | |
| Np 93 NEPTUNIUM | Pu 94 PLUTONIUM | Am 95 AMERICIUM | Cm 96 CURIUM | Bk 97 BERKELIUM | Cf 98 CALIFORNIUM | Es 99 EINSTEINIUM | | |
| Fm 100 FERMIUM | Md 101 MENDELEVIUM | No 102 NOBELIUM | Lr 103 LAWRENCIUM | Rf 104 RUTHERFORDIUM | Db 105 DUBNIUM | Sg 106 SEABORGIUM | | |
| Bh 107 BOHRIUM | Hs 108 HASSIUM | Mt 109 MEITNERIUM | Uun 110 UNUNNILIUM | Uuu 111 UNUNUNIUM | Uub 112 UNUNBIUM | Unt 113 UNUNTRIUM | | |

***Figure 8. Parametric table of chemical elements***

After generalizing the disciplinary knowledge, the heuristic properties of systems transdisciplinary parametric tables can be used in scientific research.

### Systems Transdisciplinary Method of Information Analysis

In scientific research, the term "necessary and sufficient information" is often used. In the framework of a systems transdisciplinary approach, disciplinary information will be "necessary and sufficient" if all type of attributes of complete information can be distinguished in it. The information will not be considered sufficient if some of its types or attributes in the corresponding systems transdisciplinary parametric table remain blank. Each blank type or feature of complete information allows you to describe the meaning of the missing information or its carriers, and thus set the direction of scientific search. The article demonstrates the practical application of the systems transdisciplinary parametric table of chemical elements for determining the hidden mechanisms of human diseases (see Figure 8).

The systems transdisciplinary method of information analysis is based on the use of three concepts: information balance, information imbalance, information tension.

**Information balance.** The vital activity of living objects and the existence of inanimate objects is accompanied by cyclic processes. Such processes include periodic processes of the activity of chemicals in physiological processes, the frequency of catabolic and anabolic reactions, the processes of heating and cooling, the processes of tension and relaxation, etc. The information balance ensures the sustainable development of the object and the achievement of development goals. Therefore, the information balance is a state of complete information in which the activity and/or the number of information carriers of a quantitative and qualitative type returns to average values at the end of the cyclic process.

**Information imbalance.** Information imbalance is a state of complete information in which the activity and / or several information carriers of a quantitative or qualitative type does not return to the average values at the end of the cyclic process (see Figure 9).

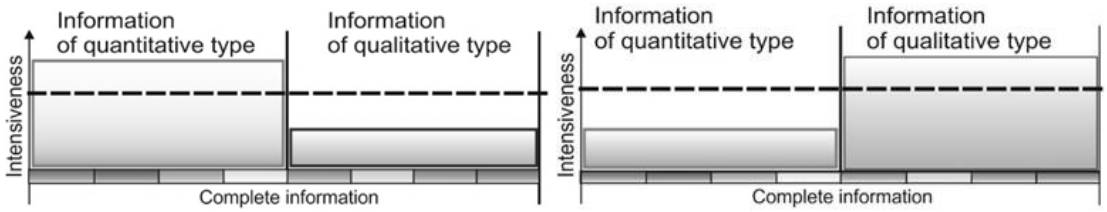


***Figure 9. Types of information imbalance (a, b)***

Two types of information imbalance should be distinguished. The first type of information imbalance is established in the object when the activity and / or the number of storage media of a quantitative type exceeds the average value, and the activity and/or the number of storage media of a qualitative type does not reach average values at the end of the cyclic process (see Figure 9a). In the second type of information imbalance, the activity and/or the number of storage media of a quantitative type does not reach average values, and the activity and / or the number of storage media of a qualitative type exceeds the average value at the end of the cyclic process (see Figure 9b).

**Information tension.** Information tension is a designation of the deformation of the manifestation of complete information caused by the influence of various negative factors (see Figure 10).

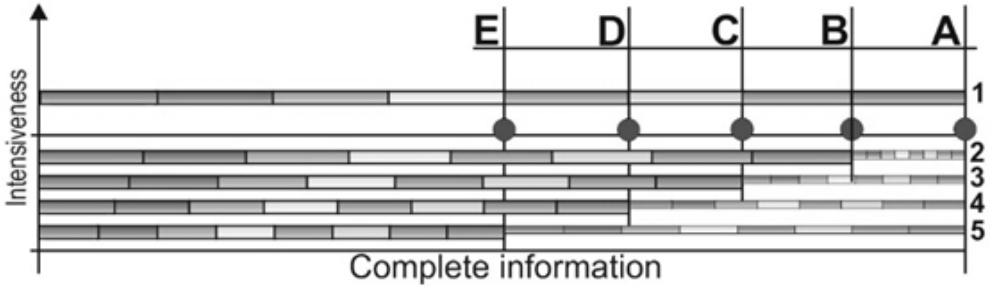


***Figure 10. Zones of information tension on the example of a systems transdisciplinary model of information unit of order***

Recall that information of quantitative type describes the subject matter of an object. Information of qualitative type describes the properties and functions of an object. The lack of informational tension in the object is demonstrated by the systems transdisciplinary model of complete information (see Figure 10/1). According to the cybernetic law of requisite variety, a stable system is one that has a repertory of responses that matches the range of disturbances coming from its environment (Jackson 2015). In real conditions, objects are influenced by various factors (psychological, social, technical, natural, space, etc.). This influence causes deformation of the manifestation of complete information. The boundaries of the possible deformation set the

boundaries of the attributes of information qualitative type in the systems transdisciplinary model of informational unit of order. Each deformation discretely reduces the amount of display of complete information. This reduction is offset by the so-called informational supplement. The discreteness of the deformation allows presenting an informational supplement with its model of complete information. Each subsequent deformation of the complete information of the object (B, C, D, E) is accompanied by the strengthening of the information supplement (BA, CA, DA, EA) (see Figure 10 / 2,3,4,5). As a result, the subject matter, as well as the properties and functions of the object are radically changed, making it possible to manifest the subject matter and functions of the information supplement. In other words, strengthening the information complement cardinally changes the repertoire of reactions of the object. Concerning human condition, an increase in information tension can be described by the following examples:

- the magnitude of the information tension in the B-A zone contributes to the accumulation of fatigue of the protective systems of the body;
- the magnitude of the information tension in the C-A zone leads to the fact that against the background of fatigue of the body's protective systems, some of the conditionally pathogenic viruses, microbes, bacteria and fungi that exist in the body under symbiotic conditions begin to intensely show their pathogenic properties. However, existing drugs can prevent or partially neutralize their negative effects on the body;
- with the magnitude of the information tension in the D-A zone against the background of the abnormal activity of its own conditionally pathogenic microflora, they can freely penetrate the body from the environment and activate in its cells foreign pathogenic viruses, microbes, bacteria and fungi. As a result, existing diseases become chronic. Own chemical elements and cell substances noticeably change their properties. As a result, some of these chemical elements are deposited in cells, organs and tissues in the form of stones and plaques, or washed out of tissues and organs. With this state of the body, drugs no longer lead to a cure, but only to short-term remission of the disease;
- with the information tension in the zone on the E-A segment, along with the above negative processes, the cellular mechanism of regulation of cell activity leads to the degeneration of some of them into a malignant or benign form. Information tension causes unacceptable information imbalance, in which the body partially or completely refuses to reproduce or assimilate certain chemical elements and substances. This leads to the appearance of serious diseases of the endocrine system, diseases of the thyroid and pancreas. With such informational tension, the body is virtually not amenable to adjustment by existing drugs. There is a gradual fading of its physiological activity.

### Information imbalance as the main cause of human diseases

Consider the mechanism of the manifestation of information imbalance on the example of human diseases using a systems transdisciplinary parametric table of chemical elements (see Figure 8). The first type of information imbalance of a person is accompanied by a transition to an active state and “washing out” of chemical elements and substances from the tissues of organs that relate to attributes of information of quantitative type (the first group of elements in the table). At the same time, the deposition of chemical elements and substances that relate to the attributes of information of qualitative type occurs within the organs of the human body (the second group of elements in the table). The second type of information imbalance will be accompanied by a transition to an active state and “washing out” of the chemical elements and substances from the tissues of organs that belong to the attributes of information of qualitative type (the second group of elements in the table), and also the deposition of chemicals that will occur inside the organs of the human body relate to the attributes of information of quantitative type (the first group of elements in the table). This theoretical assumption was confirmed by the example of diseases, the cause of which is not well understood.

**Kidney stone disease.** In the process of kidney stone disease, stones of various chemical composition are formed in the kidneys. The most common types of stones are oxalates, phosphates and urates. Calcium phosphate stones, the basis of which are phosphorus and calcium, are formed in the kidneys in violation of calcium-phosphorus metabolism (oxalates, phosphates). Phosphorus and calcium belong to the attributes of information of a qualitative type. Therefore, people with the first type of information imbalance will experience a predisposition to oxalates and phosphates. Urate, which is based on sulfur, is formed due to the increased breakdown of proteins in the body (Strukov, & Serov, 2013). Sulfur belongs to the attributes of information of a quantitative type. Therefore, people with a second type of imbalance will experience a predisposition to urates.

**Osteoporosis.** One of the most difficult to cure human diseases is osteoporosis. In this disease, calcium and phosphorus are “washed out” of bone tissue. The bones become fragile and brittle. As in the case of the previous example, using the systems transdisciplinary parametric table of chemical elements, we can verify that people with the second type of information imbalance will have a predisposition to osteoporosis.

**Calcification.** Calcification refers to a disease in which calcium is deposited in the organs and tissues of the body. Calcium belongs to the attributes of information of a qualitative type. Therefore, people with the first type of information imbalance will be predisposed to calcinosis disease.

**Diseases of the thyroid gland.** Iodine refers to the attributes of information of a quantitative type. Consequently, the increased activity of iodine-containing thyroid hormones will accompany the first type of information imbalance. The reduced activity of iodine-containing thyroid hormones will accompany the second type of information imbalance in the human body.

**Excess and lack of iron in the blood.** Iron refers to the attributes of information of a qualitative type. Therefore, lower hemoglobin, which includes iron, will indicate the first type of information imbalance. Excess iron in the blood indicates the second type of information imbalance in the human body.

**Diseases associated with impaired cofactors and enzymes.** For the manifestation of their enzymatic activity, most enzymes require low molecular weight non-protein organic compounds (coenzymes) and/or metal ions (cofactors). A cofactor is a small non-protein compound (often a metal ion) that attaches to a functional site of a protein and participates in its biological activity. A significant number of organic and inorganic substances in the body plays the role of cofactors and enzymes (Petsko, & Dagmar, 2004). According to the parametric table of chemical elements, zinc and manganese belong to the signs of information of a quantitative type. Iron, molybdenum, nickel, magnesium, copper and calcium belong to the signs of information of a qualitative type. Knowing a person's predisposition to a specific type of imbalance, one can confidently predict the activity or passivity of the ions of these metals, as well as the activity or passivity of the corresponding cofactors and enzymes. This circumstance allows us to give a new impetus to the study of pathological activity or passivity of enzymes and hormones in organisms of people with various types of imbalances.

It should be noted that the type of information imbalance causes a strictly defined parenchymal and mesenchymal fatty degeneration, protein and carbohydrate degeneration, as well as various disorders of mineral metabolism.

It is important to say that based on a systems transdisciplinary parametric table of chemical elements it becomes possible to create a methodology for the rapid assessment of the general condition of a person. For example, to quickly obtain complete information about a person's state, as, in principle, about the state of any object, process and territory, it's enough to determine only two transdisciplinary indicators - the type of informational imbalance and the amount of informational tension.

* * *

The examples that are shown in this article allow us to talk about the possibility and expediency of creating a new scientific field - systems transdisciplinary medicine. In the framework of this area, it is possible to significantly expand the effectiveness of medical and preventive medicine through the practical application of a systems transdisciplinary approach:

- clarify and significantly expand the understanding of the mechanisms of the formation of diseases in the human body caused by different types of information imbalance and different values of information tension;
- offer new ways and methods of preventing health and treating diseases caused by different types of information imbalance and different values of information tension;
- develop a new class of medicines and technical devices aimed at preventing the health of people with different types of information imbalances and different amounts of information tension;
- create effective express methods for assessing human health, etc.

Tables similar to the systems transdisciplinary parametric table of chemical elements can also be compiled for viruses, germs, bacteria, fungi, which are constantly or periodically appear in the human body. The presence, species composition and activity of native and alien microflora is a direct consequence of the type of information imbalance of a person and the magnitude of information tension. Simply put, the body resorts to the help of these biological objects to transfer part of the chemical elements into an active or passive state. Therefore, knowing the mechanism that microflora uses, the physician will have the opportunity, in certain cases, to use this microflora itself to heal a person.

## Conclusion

The subject of this article was a brief theoretical justification of the systems transdisciplinary model of information unit of order, as well as a description of some areas of its practical application. The main task of the systems transdisciplinary model of information unit of order is the unification and contextual generalization of disciplinary knowledge. Unification and generalization are carried out by identifying disciplinary knowledge with the main types, subspecies and attributes of complete information. The result of unification and generalization of disciplinary knowledge is a transdisciplinary parametric table. Generalization can be subjected to knowledge of one discipline, as well as already generalized knowledge of different disciplines. Disciplinary knowledge that has the same attribute in a transdisciplinary parametric table is actually interconnected. This circumstance allows combining knowledge of disciplines within the framework of systems transdisciplinary research that cannot be combined within the framework of one classical scientific research, for example, knowledge of natural, technical, humanitarian and social disciplines.

Each systems transdisciplinary parametric table within which disciplinary information is summarized can be described by numerous examples of information imbalance and information tension. Combining the information of these tables in a transdisciplinary information field allows to identify and analyze the mechanisms of mutual influence of types of information imbalance of people, technical objects, technological processes and types of information imbalance in the territory where people live and technical objects are located. In turn, knowledge of these mechanisms allows creating methods and technologies for restoring information balance and eliminating information tension. That is, we are talking about the prospect of an immediate start to solving complex multifactorial problems of modern society.

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