



UNIVERSAL MODEL OF CULTURE AND ITS DYNAMICS: THE GENERAL AND THE SINGLE METHODOLOGICAL PLANES.

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1. INTRODUCTION

An analysis of the modern socio-cultural situation allows us to conclude that humanity in its evolution has reached a kind of horizon of completeness, from the position of which both historical patterns and historical prospects for the development of human civilization are quite clearly visible.

On the one hand, the cultural and historical development of humanity can be described in the context of a metaphor – the swing of a pendulum of historical development from monocultural to polycultural projects, and on the other hand, the classical maxim becomes quite clear: the development of humanity goes from culture to civilization, which implies a progression of development in which the ingrained and established cultural matrices of humanity – customs, beliefs and socio-cultural practices develop into a more advanced state of social organization – the civilization. In essence, this is the idea that culture serves as the basis for the development of civilization [1; 2].



At large, we can cite one of the principles of Oscar Spengler's theory – "culture degenerates into civilization": culture, having reached its peak and exhausted its internal capabilities, passes into the civilization phase. This means that civilization is a kind of "mummy" or "mechanized remnant" of culture, its external manifestation, devoid of living creativity and spirituality. At the same time, as O. Spengler argued in his book *"The Decline of the West"*, civilization is the inevitable fate of a culture, within the framework of which the very peak has been reached, from the height of which it becomes possible to solve the last and most difficult issues of historical morphology. At the same time, civilization is the inevitable culmination of the development of culture, when the cultures of peoples pass into their civilizations, when their creative energy fades and is replaced by critical impulses. O. Spengler considered civilizations as a phase of decline, where the intellectual focus overshadows spiritual depth.

At the same time, the problem of the morphology of cultural space, that is, its model acquires great significance in understanding the socio-cultural development of humanity, enabling to talk about cultural space as a system that is characterized by both a certain structure and information complexity.

2. CURRENT STATE OF THE ISSUE

2.1. Models of cultural phenomena

The models of culture (cultural phenomena) and culture dynamics are analyzed in a lot of socio-cultural spheres – education [3], cultural consumption [4; 5], cultural context of the gender problems [6], cultural pluralism [7], social stratification and genetic bases of society [8], the conceptual aspects of culture [9-16]. A new mental species is conceptualized (*Homo technologicus*) within the problem of current technologies merging with a human being [17; 18].

The models of culture are in the focus of scientific research [19] concerning the factors of culture structuralization. Back in the 20th century P.Sorokin analyzed the three types of cultural values [20; 21]. Nowadays E. Hall classified groups as mono-chronic or poly-chronic, high or low context and past- or future-oriented [22; 23]; C.Kluckhohn saw 5 dimensions of culture – attitude to problems, time, Nature, nature of man, form of activity and reaction to compatriots [24; 25]; G. Hofstede conceptualized 4-D model of culture based of power distance, collectivism vs. individualism, femininity vs. masculinity and uncertainty avoidance; later he enriched the model by adding long-term vs. short-term orientation [26]; F.Trompenaars' dimensions of culture came out as universalist vs. particularist, individualist vs. collectivist, specific vs. diffuse, achievement-oriented vs. ascriptive and neutral vs. emotional or affective [27]; F. Tönnies dwelt on *Gemeinschaft* (community) vs. *Gesellschaft* (society) cultures [28].

The most promising approach to the problem of culture modeling has been developed by R. Lewis in the systemic conception of dimensions of behavior for cultures' differentiation [29]. R. Lewis' model is based on data drawn from 50,000 executives taking residential courses and more than 150,000 online questionnaires to 68 different nationalities; after visiting 135 countries and working in more than 20 of them, R.Lewis came to the conclusion that human beings can be differentiated into 3 clear categories, based not on nationality or religion but on behavior. He named his typologies: *linear-active*, *multi-active* and *reactive*.

By large, the scientific data have been accumulated enabling to build a universal model of culture and its phenomena.



3. RESEARCH OBJECTIVES

Accordingly, the purpose of our article is to present a fundamental/universal model of culture (on the methodological plane of the general) and cultural phenomena (on the methodological plane of the single) in the context of general systems theory.

The objectives are:

To modify general systems theory, being a systemic universal and general explanatory principle of the phenomena under study.

To ground the fundamental configuration (the universal model) of cultural morphology.

To present the fundamental/universal model of cultural phenomena (on the methodological plane of the general and the single) in the context of general systems theory.

To conduct the extrapolation of the universal model in different planes of research covering basic elements of culture

To develop the main synergetic approach to social and cultural dynamics.

4. MATERIALS AND METHODS

To meet the purpose of the article the theoretical analysis of the problematic field of the study as well as the general systems theory developed by Yuri Urmantsev (being the fundamental model of reality and revealing its principally systemic nature, that can be considered as one of the fundamental explanatory principles stemming from the philosophical universals the ancient philosophers were eager to found), being modified and further developed by the author, have been used. The research is also based on the cultural models developed by R. Lewis, on G. Naan's concept of world's genesis, on the laws of fractal modeling with using the synergetic approach being an interdisciplinary scientific tool, with the help of which the researchers seek to build "conceptual bridges" between many scientific areas.

5. RESULTS AND DISCUSSION

5.1. General systems theory as an explanatory principle of the phenomena under study [30]

According to the post-nonclassical scientific theories the world emerges due to division (splitting) of the physical vacuum (nil, ether) into the opposite parts/aspects: "plus" and "minus". The cosmological science interprets this process in the same way, when it views the genesis of the Universe as a result of "blast" from the fundamental vacuum symmetry (singular state of the substance, etc.) by means of its splitting into substance and field. As G. Naan writes, the birth of the Universe is a process of polarization of "Nothingness" into "Something" and "Anti-Something" (being "surplus" and "insufficient" entities), that brings about the emergence of all known physical phenomena and scientific laws [31]. Eventually these polar entities are brought to mutual annihilation thus revealing physical vacuum (**Figure 1**).

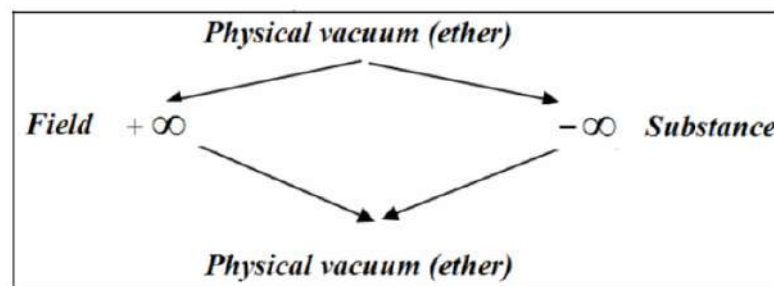


Figure 1. The process of world's genesis: scientific approach [33]

The religious and mythological approach expresses the idea, that our world has been created by God from “nothingness” by means of its splitting (in the process of so called dichotomized dualization) into light and darkness (positive and negative aspects of reality) (**Figure 2**).

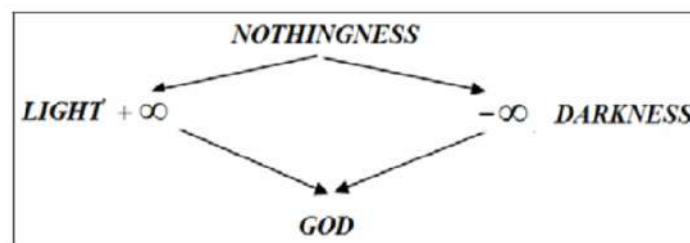


Figure 2. The process of world's creation: religious approach [33]

The presented model of world's genesis plus the concept of functional asymmetry of the cerebral hemispheres enable to compose a correlation table of some important aspects of reality (**Table 1**).

Table 1. Correlation table of major aspects of reality [30]

<i>Cerebral hemispheres</i>		
Left hemisphere	Hemispheric synthesis	Right hemisphere
<i>Fundamental properties of reality, according to Yu. Urmantsev</i>		
Quality	Relationship	Quantity
<i>Elements of the triadic model of reality</i>		
External	Border	Internal
Plural	Whole	One
Future tense	Present tense	Past tense
Chronos (linear time)	Kairos (explosive time)	Cyclos (cyclical time)
<i>Parameters of an elementary particle</i>		
Mass	Spin	Charge
<i>Main types of matter</i>		
Time	Space	Motion



<i>Fundamental forms of matter</i>		
Substance (information)	Physical vacuum	Field (energy)
<i>Mathematical and physical parameters</i>		
Time	Distance	Speed
Resistance	Voltage	Current
<i>Factors of natural evolution according to Charles Darwin</i>		
Inheritance	Natural selection/struggle for existence	Variability
<i>Cognition of the world in the context of associative perception</i>		
Associations by contrast	Associations by contiguity	Associations by similarity
<i>Properties of the nervous system</i>		
Strength	Balance	Mobility
<i>Human information processing strategies</i>		
Induction/deduction	Insight	Traduction (transduction)
<i>Strategies for mastering reality in society</i>		
Praxeology	Epistemology	Axiology
<i>Types of cultures</i>		
Material culture	Natural culture	Spiritual culture
<i>R. Lewis' dimentions of behaviour used for cultures' differentiation</i>		
Linear-active	Multi-active	Reactive
<i>P.Sorokin's types of culture values</i>		
Ideational values	Idealistic values	Sensate values

These data correspond with ***the general systems theory***. Due to the integral character of the Universe, the existence of the latter is regulated by some fundamental/universal laws/principles, which in the context of Yuri Urmantsev's general systems theory are revealed in the "law of system rearrangements", being a systemic universal/frame that presupposes seven possible fundamental types of systems, when any systemic entity can be transformed/rebuilt in seven ways: by changing relationship, quantity and quality, being designated as: A (relationship), B (quantity), C (quality).

Due to them we have seven basic combinations: A, B, C, AB, AC, BC, ABC representing basic types of systems (**Figure 3**) [32; 33].

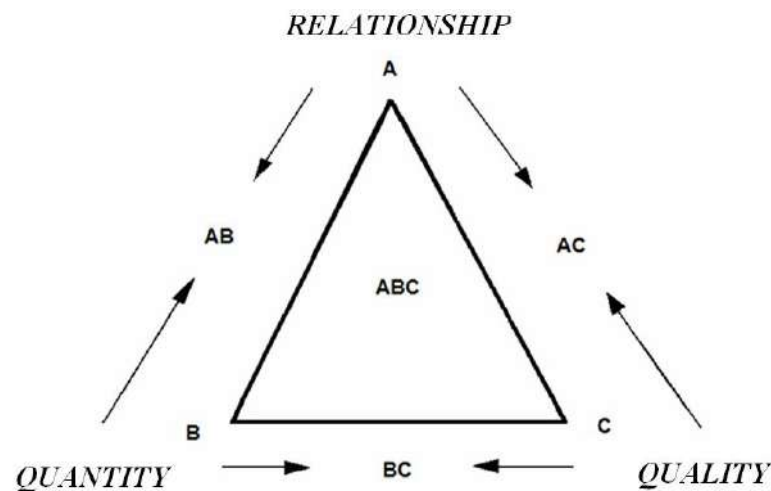


Figure 3. The representation of reality according to the general systems theory [32]

Color representation of the systemic organization of reality serves as a visual demonstration and definite proof of the basic model of the general systems theory (**Figure 4**).

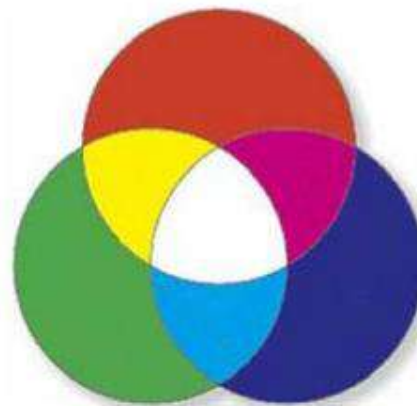


Figure 4. Color interpretation of the systemic organization of reality [33]

Let us present some known triangles serving as methodological basis for conducting research.

The triangles of L. R. Hubbard [34]: the top *triangle* represents the *KRC triangle* – *knowledge, responsibility* and *control*. The lower *triangle* consists of the *ARC triangle* – *affinity, reality* and *communication* (these elements are united in *understanding*).

Interesting is also the Sternberg's triangular theory of love [35]. According to R. Sternberg, perfect love involves a form of love which can be represented as a triangle that consists of three basic dimensions: passion, intimacy and commitment.

These being placed on the vertices of a triangle, interact with each other thus forming seven different kinds of love experiences (**Figure 5**).

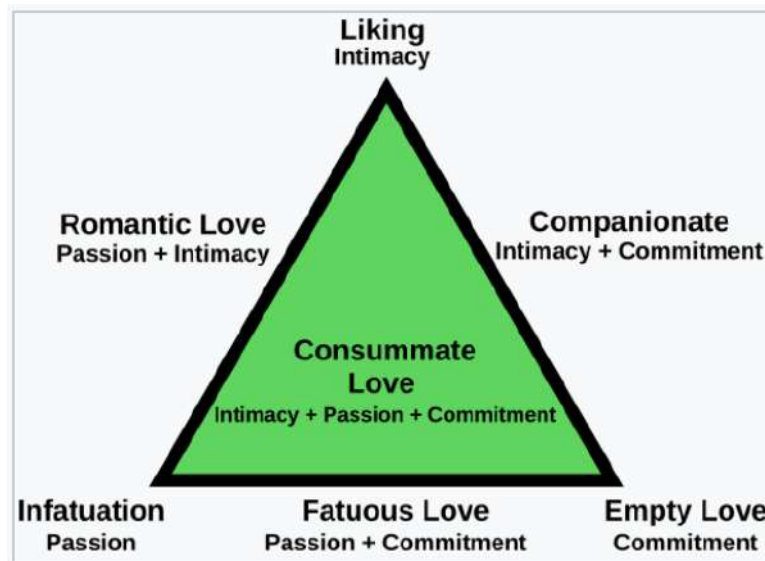


Figure 5. The Sternberg's triangular model of love [35]

On the same principle, E.I. Artamonova developed the model of sciences responsible for the formation of the worldview in the personality [36]. The vertices of the triangle are occupied by: philosophy, social sciences (cultural studies, sociology, political science, economics, history) and natural sciences (physics, chemistry, biology). Between the elements are pedagogy, medicine, mathematics.

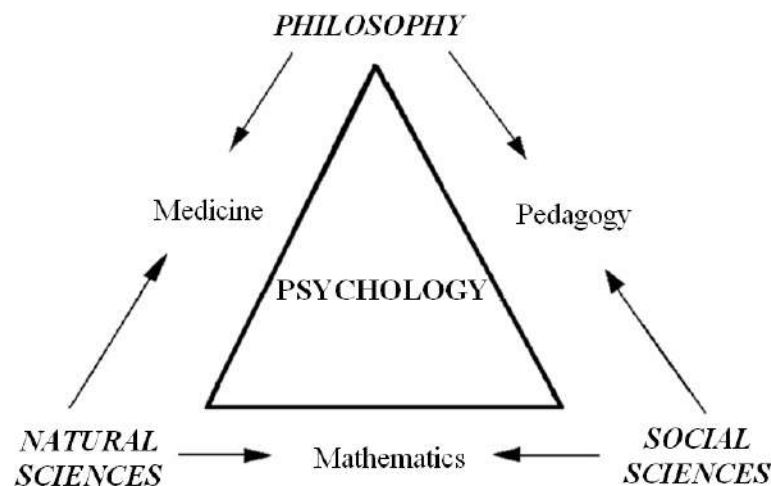


Figure 5. Model of sciences responsible for the formation of the worldview of the personality [33]

In the center of the triangle is psychology as a science about the psyche, the inner world, the soul of a person who assimilates new knowledge (**Figure 5**).

If the elements of the model “relationship”, “quantity” and “quality” (**Figure 3**) are understood as fundamental categories of human cognition, then in the structure of the systemic triangle these categories determine additional fundamental categories – “measure”, “sign”,



“interaction”. So we have the main logical-ontological categories (universals) of reality (**Figure 6**).

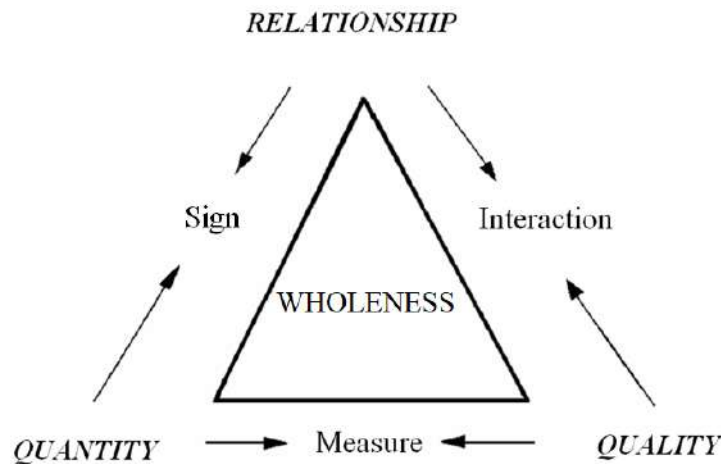


Figure 6. A fundamental model of reality, demonstrating the coordination of its major logical and ontological categories/universals [33]

At large, the presented fundamental model of reality, revealing its principally systemic nature, can be considered as one of the fundamental explanatory models/principles stemming from the *philosophical universals* the ancient philosophers were eager to reveal [37-41], finding their way to modern science in the forms of *frames* [42-45], *holographic, fractal structures* [46-50], and the like which embody the attempts to find/built certain interdisciplinary universals/laws [30].

As it is known, “*measure*” is a philosophical category expressing an integral and organic unity of quantitative and qualitative certainty of an object/phenomenon; accordingly, in the systemic triangle, the category of *measure* is actualized in the focus of the correlation of *quality* and *quantity*. In the context of types and forms of the matter, “*measure*” being indifferent to specific physical characteristics can be put in correlation with “*space*”, being also an “indifferent entity” that can be understood as an extension, a certain container where the objects of reality are located and the events of our world take place.

The correlation/connection of “*quantity*” and “*relationship*” enable to appear the concept of “*sign*” being the category that captures the formal-logical relationships of abstract quantitative values, giving us an idea of quantitative gradation/dichotomy of different values (such as “more – less”, etc.), and revealing the process of changing the parameters of the elements of this gradation. And this forms an idea of a *sign* and of quantitative changes, which, in turn, forms a conception of “*time*” being the formal and logical scale of quantitative changes taking place in the objects and phenomena of reality (a short moment → a second → a minute → an hour → a day → a week → a month → a year → a century → a millennium → an eternity).

The correlation of “*quality*” and “*relationship*” gives us the idea of “*interaction*” actualized as a result of the qualitative heterogeneity of our world. Thus we have the relationship of qualitative values that form the idea of a qualitative gradation of values (such as “better – worse”, “strong – weak”, “large – small”, etc.), as well as the idea of changing parameters of the objects on the scale of this gradation forming the concept of “*motion/interaction*” that lead to qualitative changes of the objects.

At the same time, the category “*relationship*” in the systemic triangle correlates with such form of the matter as the physical vacuum expressing according to its nature a relationship in its



pure, real form, because *the physical vacuum* can be understood as an environment of the relations of virtual particles, being the material basis of the Universe.

The “*quantity*” in the systemic triangle correlates with such form of the matter as “*substance*”, which due to its discrete/structural composition reveals discrete (numerical) characteristics.

The “*quality*” in the systemic triangle correlates with such form of the matter as “*field*”, being realized as a qualitative entity in the process of interaction of material objects (**Figure 7**).

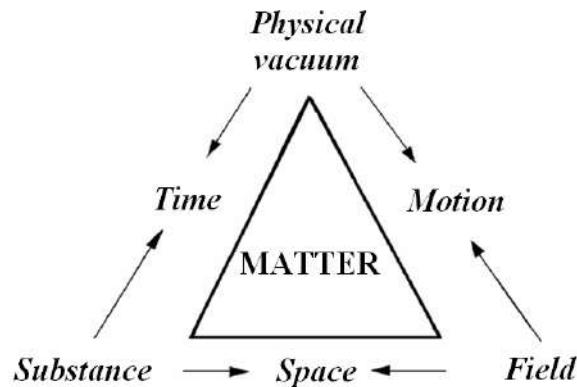


Figure 7. The systemic composition of the matter [33]

The world exists, as the materialistic philosophy states, according to *the four philosophical principles* (1. general connection of objects and phenomena of our world, 2. unity, integrity of the world, 3. generality of motion and development), 4. system and structural organization of the world), and *the three laws of dialectics* (1. interpenetration of the opposites, 2. negation of the negation, 3. transformation of quantity into quality).

These determine the major *tools of conceptual thinking*:

the diplasty (being the ability of a person to unite opposite psychological states and polar logical contents of the notions),

the analysis (being the ability of a person to differentiate the constituent parts or features of objects and phenomena),

the synthesis (being the ability of a person to create the combination of components or elements to form a connected whole),

the comparison (being the ability of a person to compare the phenomena or events with each other),

the abstraction (being the ability of a person to isolate the major features and to operate them outside the specific situation),

the generalization (being the ability of a person to bring to reduction of various concepts into a single category),

the systematization (being the ability of a person to bring to reduction of some categories into a logical system).

For us it is very important to place in a systemic sphere the peculiarities of the development of human intellect. J. Piaget understands the intellect as a system of logical operations being the realization of mental actions, possessing *the property of reversibility*, due to which the main properties of the objects are preserved. J. Piaget defines the process of intellect development in the form of different groups being similar to mathematical groups. The grouping is understood by J. Piaget as a closed and reversible system being a logical/axiomatic model that the scholar can



use to interpret certain facts. All operations in the grouping are organized according to certain criteria [51; 30]:

1. *Combinability/transitivity.*
2. *Reversibility.*
3. *Associativity.*
4. *Identity.*
5. *Tautology.*

Further we have two more additional criteria.

6. *Reflexivity* expresses a person's ability to correlate the logical actions with himself/herself.

7. *Universality* of thinking tends to exhaustive coverage of all logical/mental cases both in the sphere of actual and potential reality.

The analyzed entities can be put into systemic correlation (**Table 2.**).

Table 2. Systemic correlation of important entities of philosophy and natural science [30].

<i>Forms and types of matter</i>	<i>Logical and ontological universals</i>	<i>Principles and laws of dialectics</i>	<i>Criteria of cognitive operations</i>	<i>Conceptual thinking tools</i>
Physical vacuum	Relationship	Interpenetration of opposites	Identity (inversion)	Diplasty
Substance	Quantity	Structural organization of the world	Reversibility	Analysis
Field	Quality	Generality of movement	Tautology	Synthesis
Motion	Interaction	Transformation of quantity into quality	Associativity	Comparison
Time	Sign	Negation of the negation	Reflexivity	Abstraction
Space	Measure	Integrity and unity of the world	Combinability (transitivity, composition)	Systematization
Matter	Wholeness	General ties/connection of objects and phenomena	Universality	Generalization

5.2. Fundamental/universal model of culture (on the methodological plane of the general) presented in the context of general systems theory

The data presented above enable to build a fundamental/universal model of culture on the methodological plane of the general (concerning basic elements of culture) in the context of general systems theory.

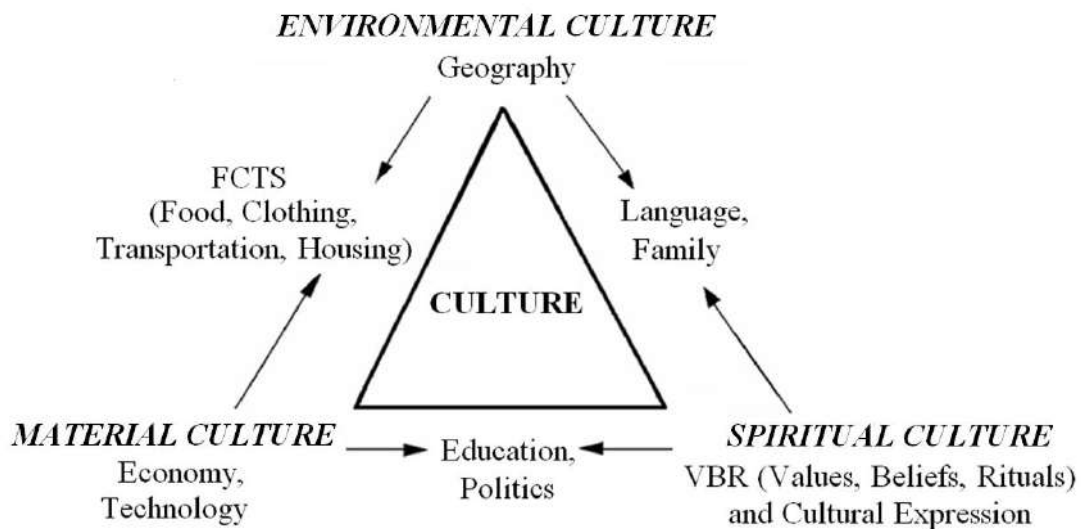


Figure 8. Fundamental/universal/systemic model of culture presented on the methodological plane of the general (developed by the authors)

Traditionally, depending on the two types of people's activity (material and spiritual), it is customary to distinguish two types of culture: *material* and *spiritual*. Taking into account the environmental (planetary) factor of existence of the Mankind we should add the third type of culture, the natural one, – the *environmental culture*.

Besides, there are basic elements of culture: FCTS (Food, Clothing, Transportation, Housing), VBR (Values, Beliefs, Rituals) and Cultural Expression, Geography, Language, Family, Economy, Education, Politics, Technology (**Figure 8**).

5.3. Fundamental/universal model of cultural phenomena (on the methodological plane of the single) presented in the context of general systems theory

Using the methodological plane of the single enables to present a series of models which are fully (refer to **Table 1, 2**) and in detail (!) correspond to the cultural models developed by R.Lewis who used three behavioral factors: *linear-active*, *multi-active* and *reactive* [29] (**Figure 9**).

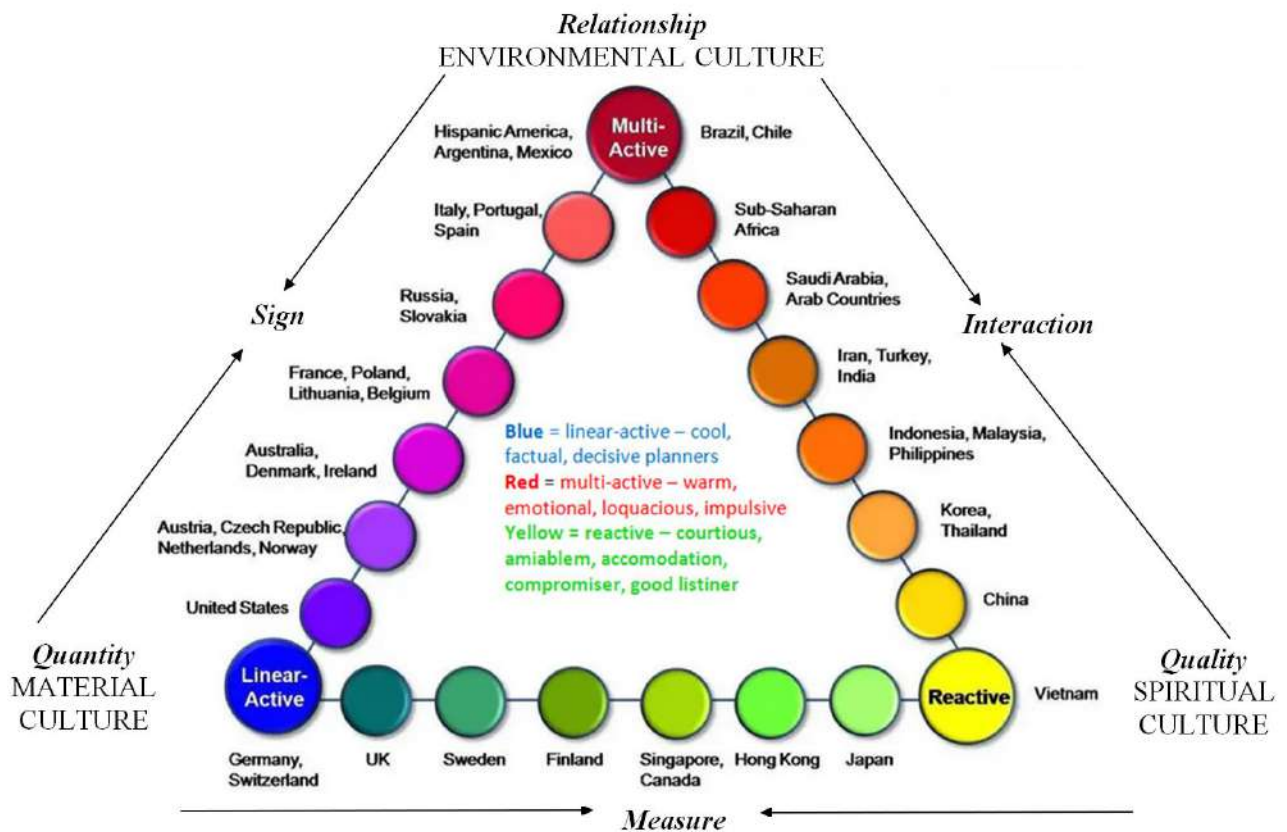


Figure 9. Fundamental/universal/systemic model of cultures interaction presented on the methodological plane of the single and based on Lewis' model

Conducting research into the individual cultural profiles, enables to build pertinent models (Figure 10) showing the details of persons' affinity with the three cultures.

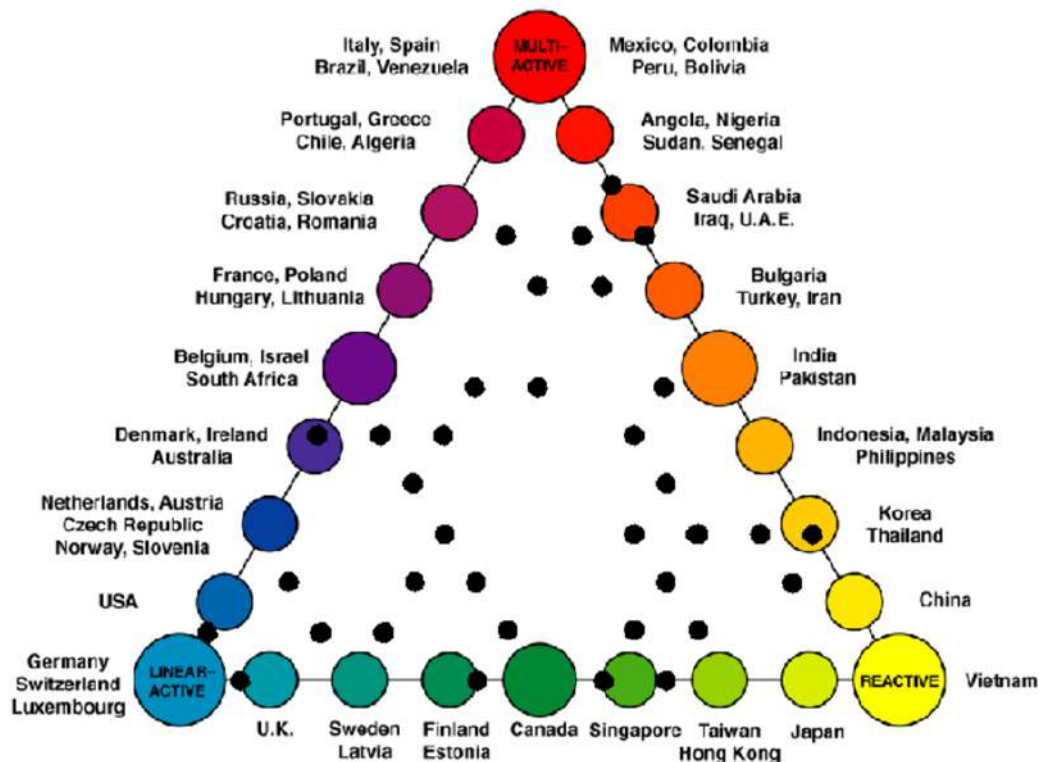


Figure 10. Lewis Model triangle pinpointing individual cultural profiles [29]

5.4. Extrapolations of the universal model of culture in different planes of research covering basic elements of culture

Developed by us the universal model of culture being presented in the methodological planes of the general and the single stemming from the general systems theory is based on the universal and deep laws of *fractal modeling* (a fractal is an object in which the parts are somehow similar to the whole, that is, separate constituent parts are self-similar), which can be illustrated by the fractal triangle of V.F. Serpinsky, revealing the fundamental geometric principle of the fractal structure of the Universe and its objects (Figure 11).

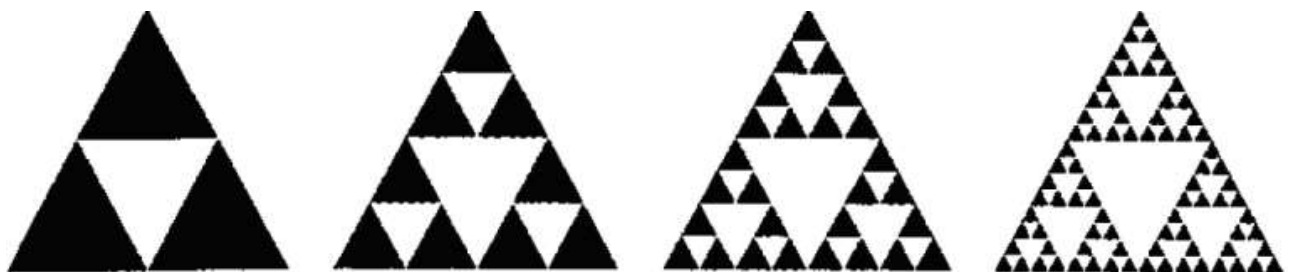


Figure 11. Serpinsky's fractal triangle



Let us consider developed by the author some other models in the context of general systems theory and fractal-holographic integrity of the phenomena under study (**Figure 12**).

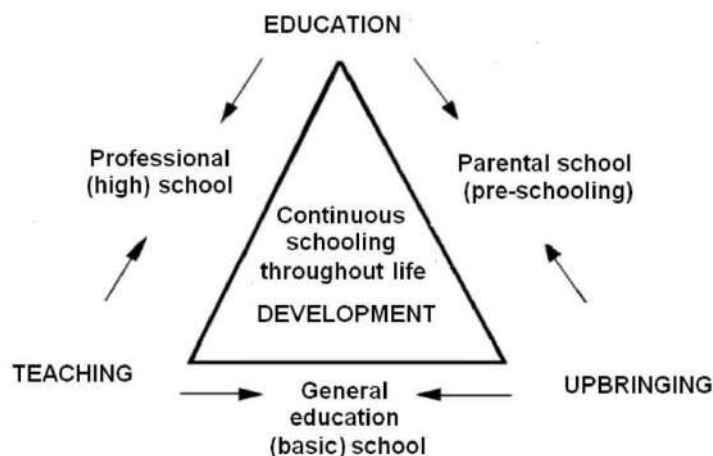


Figure 12. Systemic model of the school as a social institution [33]

The systemic principle can be applied to the model of a personality being the subject of psychology (**Figure 13**).

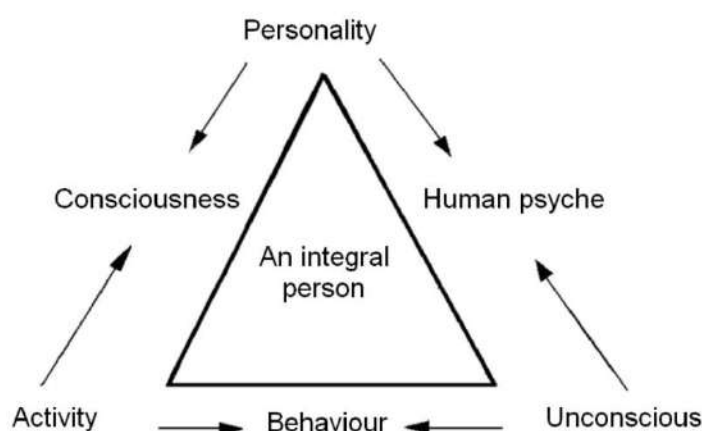


Figure 13. Systemic model of a personality being the subject of psychology [33]

The presented models are related to axiology as a science, which covers several directions (**Figure 14**).

Naturalistic psychologism comes down to the fact that the source of values lies in biopsychologically interpreted human needs, and the social values themselves can be empirically fixed as some facts.

Transcendentalism is associated with the idea of a value as an ideal being, related not to empirical, but to “pure” or transcendental consciousness.

Personalistic ontologism develops the idea of “logos” (A.F. Losev, M. Scheler), according to which the reality of social values is conditioned, according to M. Scheler, by “a timeless axiological series in God”, an imperfect reflection of which is the structure of the human personality.



Cultural-historical relativism, according to W. Diltthey, presupposes a plurality of equal value systems, dependent on the cultural-historical context, and cognizable within the framework of the cognition of such contexts.

Sociologism, according to M. Weber, is realized in the context of a social norm.

Nihilism expresses the denial of all and any values.

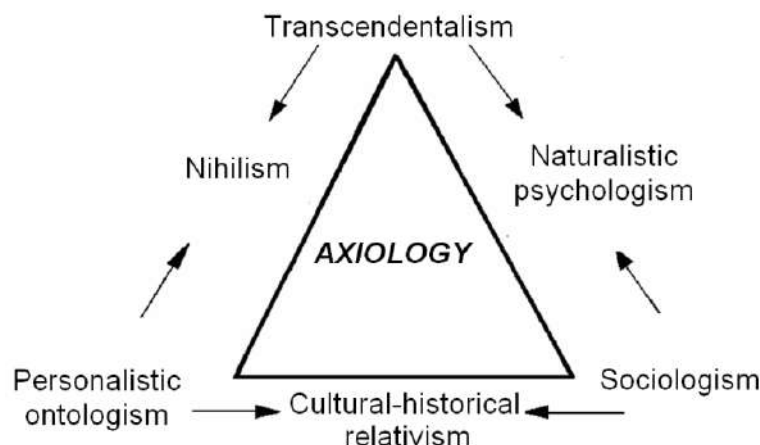


Figure 14. Model of axiological and ideological teachings (developed by the authors)

These modes correlate with the main thinking strategies that define the following types of people (Figure 15).

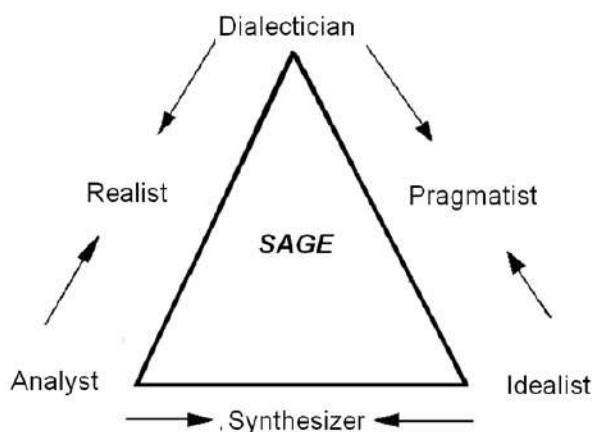


Figure 15. System of mental types of people (developed by the authors)

We can define the following types of people:

- **synthesizer** (open confrontation, position of an outside observer, fantasizing in the style of “what will happen if ...”, negative, critical analysis, incubation of contradictions);
- **idealist** (interest in the whole, defining goals and criteria, receptive listening, searching for means to achieve agreement, apology for humaneness);
- **pragmatist** (fragmentation, experimentation, search for quick returns, tactical thinking, marketing approach, planning opportunities);



- **analyst** (systematic analysis of options, need for additional data, conservative focusing, constructive attention to detail, analysis through synthesis);
- **realist** (“What? Where? When? How? For what sake?”, inventory of resources, striving for practical results, simplification, reliance on the opinion of experts, correcting adjustments);
- **dialectician** (combination of opposites, search for total synthesis, attraction to creativity, going beyond the actual reality, supra-situational approach).

There are the **types of sources of human/social power**, one of the first concepts of which was proposed by J. French and B. Raven [52; 54]. Developing the ideas of K. Lewin's field theory [54], they suggested to distinguish a number of sources of power that person O relies on in order to have power over person P, thus identifying five types of power: reward, coercive, legitimate, expert, referent. Later, one more source of power was added – informational power [55]. Usually, as J. French and B. Raven noted, person O uses several sources of power.

Reward power is based on the fact that person P perceives person O as mediating a reward for person P, for example, a subordinate receives a reward from management for working overtime.

Coercive power is based on the fact that person P perceives person O as mediating punishment for him, i.e. P expects O to punish him for not submitting to certain influence.

In the case of *legitimate power*, person P perceives person O as having the right to prescribe a certain behavior for him.

Referent power is based on the fact that person P identifies with person O.

Expert power arises from the fact that person O is perceived by person P as having special knowledge (in comparison with his own knowledge or with some absolute).

Informational power is based on persuasion, logic, and information that O uses in order to influence P.

Based on the further development of classical ideas about the sources of social power, the possibilities of using this or that power in relation to others (management staff, colleagues of the same level or subordinates) are differentiated [56]: thus, the possibility of using expert and informational power is high to influence others. Referent power has an average potential for use in relation to management staff and a high one in relation to colleagues and subordinates. Rewarding and legitimate power have a similar, very low potential for influencing management staff, equally low on colleagues, in relation to subordinates, the potential of legitimate power is high, while the potential of rewarding power is moderate. Coercive power has a high potential for use only in relation to subordinates, in relation to colleagues and management staff, the possibility of using this source of social power is extremely low [56].

The presented types of sources of human/social power can be correlated with traditional concepts, being first used in ancient Greece by Plato and Aristotle.

Aristotle used the term “oligarchy” to mean “the power of the rich”, contrasting it with aristocracy. Aristotle believed that there are three ideal forms of government: Monarchy (the power of a monarch), aristocracy (the power of the best, the chosen ones) and polity (the power that stems from society of people), each of which degenerates into “incorrect” forms – tyranny (the power of a tyrant), oligarchy (the power of the rich), ochlocracy (the power of the crowd), respectively.

Let us consider the **types of sources of human/social power in correlation with traditional concepts** (Figure 16).

- **Legitimate power**. This refers to internalized by B norms, according to which A has the right to control compliance with certain rules of B's behavior and, if necessary, insist on compliance with these rules. **Democracy**.



• **Reward power.** Its strength is determined by B's expectation of the extent to which A is able to satisfy one of B's motives and the extent to which A will make this satisfaction dependent on the behavior B desires. **Oligarchy.**

• **Coercive and punishment power.** Its strength is determined by B's expectation, firstly, of the extent to which A is able to punish him for actions undesirable for A by frustration of one or another motive, and, secondly, of the extent to which A will make the dissatisfaction of the motive dependent on the undesirable behavior. Coercion here consists in the fact that the space of B's possible actions narrows due to the threat of punishment. In its extreme manifestation, the power of coercion can be directly physically exercised, for example, when a child who does not want to go to bed is beaten or forced to bed. **Tyranny.**

• **Informational power** is based on the ability to access relevant information. It occurs when A possesses information that can make B see the consequences of B's behavior in a new light. **Aristocracy.**

• **Expert power** is realized through the ability of the person in power to be an expert in a particular field. Its strength depends on the amount of special knowledge, intuition, or skills related to the area of behavior in question, attributed to A by B. **Ochlocracy.**

• **Referent power** is the power of a standard, example, charisma, based on the strength of personal qualities and style of activity. It is based on B's identification with A and B's desire to be like A. **Monarchy.**

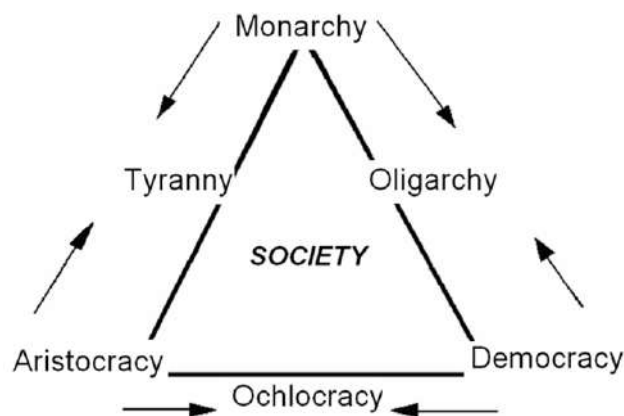


Figure 16. Model of the sources of power (developed by the authors)

If we present the synergetic model of development of any process (Figure 17), we can see that this development presupposes a change of ordered (high level of synergy) and disordered (low level of synergy) states of the developing systems.

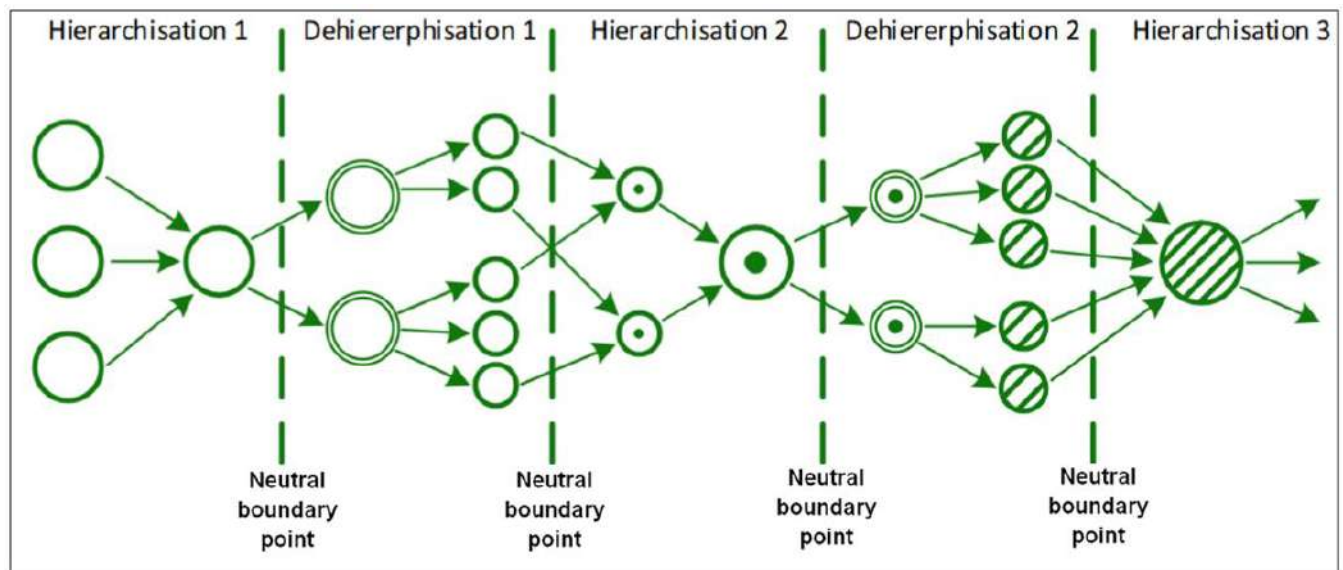


Figure 17. Alternating processes of changing system's hierarchization and dehierarchization states through the neutral boundary point (bifurcation point): a synergistic “bead game”

Due to synergetic model of development (**Figure 17**), monarchy (ordered state) degenerates into oligarchy (disordered state), which is replaced by democracy (ordered state), which degenerates into ochlocracy (disordered state), which is replaced by aristocracy (ordered state), which degenerates into tyranny (disordered state) (refer to **Figure 16**).

In general, we can speak of a movement from an ordered state (monarchy) to a disordered one (ochlocracy), and from it – again a movement to an ordered state (monarchy), which resembles the change of seasons, when summer expresses the most energetic state, and winter – the least energetic state of nature (**Table 3**).

Table 3. The integral correlative table of systemic entities: forms and types of matter, seasons of the year, spheres of the planet Earth, systems of the human body, technological orders, forms of government, aesthetic categories, sources of social power, system of mental types of people, ideological teachings, types of culture, culture values, evolution of culture types (developed by the author)

<i>Forms and types of matter</i>	Ph.vacuum →	Motion →	Field →	Space →	Substance →	Time →
<i>Seasons of the year</i>	Summer	Summer – Autumn	Autumn – Winter	Winter	Winter – Spring	Spring – Summer
<i>Spheres of the planet Earth</i>	Noosphere	Hydrosphere	Magnetosphere	Atmosphere	Geosphere	Biosphere
<i>Systems of the human body</i>	Nervous system	Motor and excretory system	Endocrine system	Blood/circulatory system	The body's support system	Digestive system



<i>Mental types of people</i>	Dialectician	Pragmatist	Idealist	Synthesizer	Analyst	Realist
<i>Technological orders</i>	The order of primitive/sacral communities	The order of “the era of steam”	The order of “the steel era”	The order of “the oil era”	Globalization Order	Nanotechnological order
<i>Forms of government</i>	Monarchy	Oligarchy	Democracy	Ochlocracy	Aristocracy	Tyranny
<i>Aesthetic categories</i>	Sublime, “Mystic Society”	Profane, “Pragmatic society”	Beautiful, “Society for the people”	Ugly, “Crowd Society”	Comic, “Post-truth society”	Tragic, “Digital Society”
<i>Sources of social power</i>	Referent power	Reward power	Legitimate power	Expert power	Informational power	Coercive power
<i>Ideological teachings</i>	Transcendentalism	Naturalistic psychologism	Sociologism	Cultural-historical relativism	Personalistic ontologism	Nihilism
<i>R.Lewis’ types of culture, P.Sorokin’s culture values</i>	REACTIVE (sensate values)		MULTI-ACTIVE (idealistic values)		LINEAR-ACTIVE (ideational values)	
<i>Evolution of culture types</i>	SPIRITUAL CULTURE → ENVIRONMENTAL CULTURE → MATERIAL CULTURE					

CONCLUSIONS

1. The information boom, which is characteristic of the development of modern human civilization, in addition to the positive aspects of this development reveals a negative tendency connected with the information multiplication, when nowadays humanity produces less objective knowledge [57; 58]. In this context, scientific discoveries are made at the junction of scientific fields due to the interdisciplinary research. The presented study is characterized by its interdisciplinary nature, since it uses many subject areas of knowledge. At the same time, this study is intended, to some extent, to combine data from the exact and humanitarian sciences, uniting the rational and irrational strategies of cognition, which allows presenting the research data without the use of mathematical formulas, and at the same time, understandable to the representatives of both the natural sciences and the humanities. Due to this, an attempt is made to combine the linear-discrete/static and cyclo-continuous/dynamic aspects of the description/study of the Universe. According to the oneness/wholeness of the world being emerged from a single source [32] (**Figures 2, 3**), these two aspects are to be methodologically isomorphic expressing



the phenomenon of fractal-holographic integrity of the world [33].

2. Thanks to the general systems theory (which is a systemic universal), modified by the author, many mutually correlated systemic models have been created. These systemic models realize a new level of ordered organization of the world thus enhances the human consciousness to a higher level of development: As V. B. Kudrin put it, “According to classical probability theory, for independent random variables the correlation coefficient is zero. This makes it possible to interpret any non-zero correlation value as a measure of information contained in the “input signal” that is perceived and remembered by a living being. Correlation interaction is carried out in the sphere of consciousness, and not by creating mechanical or electronic likenesses of observed objects in the material world. Therefore, such interaction can be called “conscious” – returning this concept to its original meaning”.

Based on objective data, the universal model of culture in the general and the single methodological planes and its dynamics has been substantiated, This made it possible to extrapolate the universal model of culture in different planes of research covering basic elements of culture have been conducted.

A fundamental model of reality is presented that demonstrates systemic correlations of the main categories of philosophy and natural science (forms and types of matter, spheres of planet Earth, elements of the human body, systemic models of the company, the divine entities, the class stratification, forms of government, aesthetic categories, sources of social power, mental types of people, ideological teachings, principles and laws of dialectics, criteria of cognitive operations, tools of conceptual thinking, types of culture, culture values, evolution of culture types, etc.).

3. The synergetic algorithm of energy-information interaction of systemic entites can be presented as a change in their two states – hierarchization (coherence) and dehierarchization (decoherence), when the dehierarchization stage in the development of systems means the disintegration of established connections within the system. This leads to an increase in the number of the elements of the systems, which is equivalent to an increase in the entropy level of these systems. Systems in the state of dehierarchization appear as dissipative entities open to the external environment, which implies the absorption of energy by these systems from the external environment resources. This leads to a decrease in their entropy level and means the entry of systems into the hierarchization phase with subsequent restoration of the state of ordered integrity of the systems that have increased their complexity – that is, the number of their elements in the previous phase of dehierarchization [58].

In the language of synergetics, the disintegration of any system, its destruction, is accompanied by its entry into a dynamic (critical) state of chaos (bifurcation point), where the past system no longer exists, and the future system does not yet exist. It is in this critical dynamic state of “deterministic chaos” (as José Saramago put it, “Chaos is merely order waiting to be deciphered” and B. M. Williams wrote that chaos is a higher form of order, where chance and unsystematic impulses become the organizing principle [59; 60]), where the line between the actual and the potential, the part and the whole, the simple and the complex is erased, that a system in a critical state chooses the path (attractor) of its further evolution and crystallizes as a “new” system. The process and mechanism of this crystallization are difficult to interpret at the theoretical level, since here we have the emergence of a new system with new systemic (“emergent”) properties, which have appeared seemingly out of nowhere [61]. The universal synergetic scheme of evolution and development of any systemic entities (**Figure 17**) enables to build an integral picture of reality whose elements reveal correspondence in their static and dynamic aspects (**Tables 1, 2, 3**).



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