

Cyberreality as an Interdeterminant of Psychological Phenomenology

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Abstract

The cyberpsychology transformation in extreme environmental change conditions (ecological, cyber, technical, technological, social), which has acquired special significance today, has not been practically investigated. The authors attempt to extend this problem viewing horizon provides sociocultural-dialogic interdeterminist metatheory. It is theoretically substantiated and demonstrated that changes in the natural, cyber, techno-technological, and social environment inevitably lead to substantive behavior changes. Furthermore, this impact cannot be reduced to a simple sum of its constituent parts. The result of interaction is the acquisition of a new quality, features, mechanisms, prerequisites, and consequences of the formation of which should become the object of psychological research. Theoretical explanations and evidence of innovativeness of the approach for the cyberpsychology phenomena's rethinking are presented. In general, we discuss the search for theoretical grounds for achieving qualitative changes in human functioning in current heterogeneous and heteroqualitative conditions.

Keywords

cyberpsychology, cyberreality, digitalization, Homo Cyberis, interdetermination, sociocultural-dialogic interdeterminist approach

1. Introduction

Uncertainty is one of the most common characteristics of current being-in-the-world. Accelerating technical and technological progress, the digitalization of almost all spheres of life, the cyber expansion of the world wide web, periodically flaring pandemics are increasingly undermining certainty in the worldview and engendering a frightening sense of uncertainty. The certainty has been replaced by the absolute uncertainty of an interdisciplinary nature. The recently discovered coronavirus is a new pathogen of a biological nature. However, it relates to ancient, more intractable, and more contagious danger: the human fear. Fear changes human behavior, for better or worse. Fear is generated by high uncertainty and unpredictability that cause the need to rethink all previous knowledge. Many seemingly unshakable ideas concerning the advantages or disadvantages of various types of behavior were destroyed.

Industry 4.0, commonly referred to as the *Fourth Industrial Revolution*, is "an emblematic title for the current trend of automation, scaling and data exchange in manufacturing technologies, including artificial intelligence, virtual reality, cloud computing, cognitive computing, the Internet of Things and the Internet of Nano Things, or the Internet of Everything, and big data analytics. Besides, the interactive networking of human agents through social media platforms and the generation of big data is extended to machines so that networks of communicating machines are created" [22].

COVID-19 extreme pandemic context today focuses on the attention of the world's interdisciplinary scientific community. A vast number of pseudo-experts appeared promptly, providing peremptory explanations and recommendations on both the nature of the COVID-19 and ways of overcoming it. The vociferousness of this kind of pseudo-expert conclusion and the media flow of messages about the coronavirus's negative dynamics emotionally strain the audience with an increase in the number of

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deaths. Moreover, it leads to disorientation and frightening uncertainty in the audience, which, in turn, generates an epidemic of fear with even more significant negative consequences. Besides, although writing this article, it was possible to discuss only increasing fears in society [5, 25], it seems much more critical to determine socio-psychological consequences provoked by the current extreme situation that has become international. Due to the uncertainty as to what is happening and its prospects, fear and panic grow. This uncertainty is augmented with the lack of analogies, the psychosis injected by mass media, the search for quick and not always justified solutions, and the awareness that previous knowledge and experience do not allow any quick and effective solutions in the nearest future. This also led to a sharp increase in the influence of cyberreality as a popular means of uncertainty overcoming through Internet resources. A prolonged stay in conditions of self-isolation and uncertainty has led to an imbalance in the interaction of real and virtual reality.

Furthermore, these consequences for global mental health will be significant and, in many ways, destructive. It is evident today that overcoming them requires new insights and solutions [21]. The accelerating stream of great occasions and changes in the eventful world, uncontrollable technical and technological progress (with unknown consequences for humans), the growth of ecological problems, and others increase interest in finding certainty in this dynamic uncertainty. Hence, the interest in futurologists' work suggests even darker perspectives [6, 9, 13].

The above-described uncertainty context caused by the pandemic could not but affect cyberpsychology, which is faced with the need to rethink many of the previously obvious ideas. Just like the awareness of the need to find fundamentally new approaches and solutions. One of the possible innovative approaches that propose problem area analysis horizons expanding presents the author's sociocultural-dialogical interdeterminist metatheory. A general description of the approach and its capabilities concerning cyberpsychology is presented in the proposed article [27-29].

The initial premise lies in the thesis that psychological phenomenology is not homogeneous and static but heterogeneous and dynamic. Nevertheless, it lacks critical comparison, integration, and synthesis in this theory body, resulting in conceptual clouding and ambiguity. When we reflect on the current state of existing knowledge, we can state the presence of an infinite number of local theories and empirical findings in it, leading to the drowning in the unlimited of disparate fragments, not accompanied by a holistic understanding of the researched phenomenology particularity as the integral reality of human existence that determines its functioning. In the proposed metatheoretical approach, an author's attempt to solve this fundamental problem is relevant for developing psychological knowledge.

The metatheory starts from the pluralistic character of modern knowledge and its philosophical and epistemological grounds. Existing crisis debates in social science in general and psychological science (towards replicability, disintegration, empiricism) are considered in the context of deterministic and indeterministic development directions. Is proposed an interdeterministic alternative in social science development and its innovative potential and attempt to integrate the variety of existing psychological knowledge in the form of positioning in the psychological knowledge heterogeneous-multidimensional-multiparadigm spaces in the form of three interconnected four-dimensional continua, allows integrating all the existing traditions and diversity of approaches. The metatheory proposes the mechanism of heteroqualitative natures, psychic spheres, and behavior determinants interaction – sociocultural-dialogic interdetermination. At the same time, interdetermination is understood as a process and result of interaction, which manifests itself in the acquisition of a new qualitative state by the whole. It focuses the audience's attention on acquiring a whole new quality, not reducible to its constituent parts' simple sum. A sociocultural-dialogical interdeterminist solution of the psychological knowledge integration is unfolding, and it demonstrates applied possibilities of metatheory and prospects of its development.

2. Theoretical Background

The current state of the discussed problem and cyberpsychology knowledge area is characterized as a state of self-determination in absolute uncertainty conditions. Assessing the current state of psychological science, Robert Sternberg uses the metaphor of a climber climbing a mountain peak in complete darkness: "The climb up the mountain, I believe, is a metaphor for scientific progress. We try in small steps to climb the top, aiming to learn "the truth" about a scientific phenomenon. However, we

are climbing in the dark because we really cannot see the entire terrain. Moreover, after small steps, we reach what seems to be the top—understanding of a scientific phenomenon—we should know that, most likely, our feeling of being there is not really the same as our being there. We may have settled upon a local maximum." [20, P. 650]. Furthermore, this movement in absolute darkness is carried out with increasing speed in the conditions of a catastrophic lack of time for making verified and scientifically reasoned decisions. Considering the explanatory and prognostic functions of scientific knowledge, the proposed research's primary goal is to search for metatheoretical foundations to define uncertainty and instability conditions.

It is helpful to turn back to history at such critical moments and consider changes in worldview over its extension. The analysis of this evolutionary singularity was done using the previously introduced theoretical construct of "cultural-scientific tradition," which allows tracing the changes in society's ideas about the world order. Cultural-scientific tradition is defined as a multivocal and dynamically mobile complex of philosophical, epistemological, scientific-theoretical, and emotional-aesthetic representations depending on the historical, social, and national context ... characteristic of a certain mentality, particular way of world perception, attitude, and evaluation of both the cognitive capabilities of the person and his place and role in the world around him. The application of this construct allowed tracing the dynamics of the worldview in various traditions' (cultural syncretism, theocentrism, anthropocentrism, modernism, postmodernism) foundations, supplementing them with the tradition of dialogism, which found its supreme embodiment in dialogue as a prerequisite, mechanism and propulsion of culture and science in conditions of diversity. Figure 1 provides a general characteristic of the main sociocultural-scientific traditions. Unlike previous versions of the scheme, this modification adds the cultural-scientific tradition of digimodernism

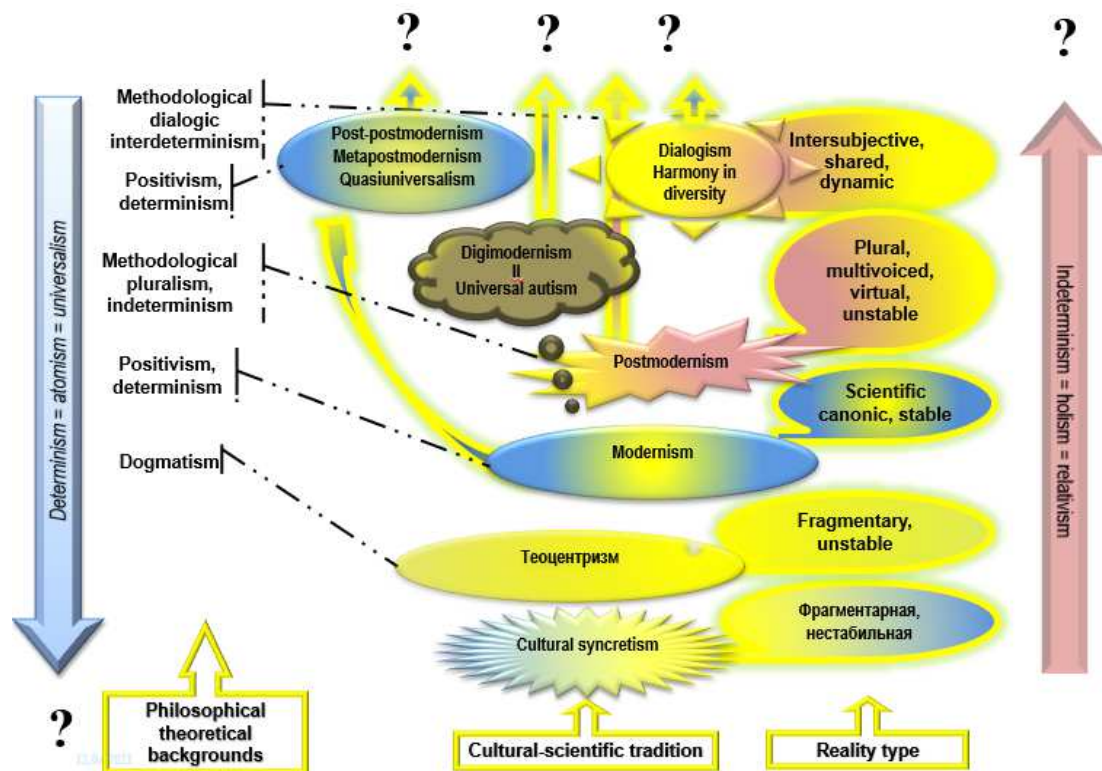


Figure 1: The evolution of the cultural-scientific traditions

The process of social development is represented in the form of evolution of worldview over historical eras, occurring in various forms of human thought, including philosophy, literature, architecture, the arts, and several other disciplines and human activities [30, P. 33]. Today we can talk about a kind of competition between the two lines of development – post-postmodern (metamodernism, digimodernism), which represents the modern development of modernism and postmodernism ideas. The fundamental difference between them lies in the search for universal foundations of the universe (original primordial atoms) in the first case and the negation of those in the second, by stating the

holistic nature of the universe and its infinity, which cannot be covered in thinking because of its infinity and, accordingly, the absolutization of multivoicesness in the world description. In social reality, this competition is offered in the form of opposition conservatism – liberalism, globalism – antiglobalism, and others.

From Fig. 1, it is evident that the primary debate regarding the direction of humanitarian knowledge development is of an epistemological nature and reduced to the two directions competition: Aristotle's atomism, oriented to the existing reality construction primary atoms discovery (in the context of psychology in the form of behavior or psyche functioning universal laws) and Galilean holism, recognizing the infinity of interrelated and interdependent psychic functioning elements. Aristotle's atomism was unsuccessful in finding the first atoms to build an integral building of the psychic understanding, Galilean holism – in the impossibility of the immense infinity of psychological phenomenology embracing.

At the epistemological level, the dichotomy of atomism-holism reduces to the determinism-indeterminism dichotomy. Today, it is entirely justified to speak about the apparent opposition of determinism and indeterminism as its antithesis in the deep philosophical sense. It should be emphasized that the apparent advantage of the former over the second in positivistically oriented empirical studies. Nevertheless, if the virus's qualitative specificity and its nature are not understood, its treatment becomes unclear. An indicator of this is the application of the methods of treatment used to its known predecessors. Mainly, we see the use of the trial-and-error method, but not a conscious movement towards understanding its nature. All this clearly shows the need for a systemic understanding of the phenomenon, and not the endless finding of more and more new elements that do not lead to the comprehension of its quality, which cannot be reduced to their simple sum.

Indeterminism is an alternative to determinism. It emphasizes free will and freedom of choice as not determined by antecedent causes that not all events have causal reasons. Fundamental analysis of the role of indeterminism in psychological and behavioral development presents the manuscript "Dynamics and Indeterminism in Developmental and Social Processes" [8]. The indeterminist approach appears in the historical, philosophical, and theoretical aspects of the dynamic systems approach, which later became the subject of the same fundamental analysis in the methodology of dynamic processes in the social and developmental sciences [23]. However, the indeterministic line of thought has a significant drawback – it contributes to drowning in infinity and promoting non-stop movement in diversity, leading to a loss of certainty and uncertainty prevalence. The latter is just the basis for increasing anxiety about a promising future or loss of temporality.

Epistemologically, it is possible to speak about the apparent competition between determinism and indeterminism as its antitheses. It should be emphasized that an advantage of the former in positivistically oriented empirical studies is apparent. However, recognizing the minimal heuristic possibilities of empiricism and its inability to act as a basis for sophisticated psychological phenomena understanding led to a trend towards the growing popularity of the indeterministic direction in psychological cognition supporters. Indeterminism is associated with the postmodern psychological tradition, standing on anti-universalism positions and proclaiming multivoicesness as the mechanism and resource for overcoming the limitation of universalism in psychological knowledge. However, multivoicesness has an essential weakness – it leads to discordance and loss of definiteness in studied phenomena interpretation owing to lack of the agreed and conventional meanings and accepted mechanism of their negotiation. In the deterministic approach, such a mechanism is evident and unchanged throughout the history of its existence – operationalization and verification. Thus, strengths and weaknesses are present in both directions. The solution is traditionally in the middle. In the discussed context, P. van Geert is very suggestive. Van Geert is one of the leading specialists in the problem field, and he infers: "A deterministic universe is dead because it has no degrees of freedom: Everything is predestined, and no information is created because all information is contained in the initial state (whatever that may be). An indeterministic universe is lifeless because it contains an infinite number of degrees of freedom. No information is created because every event has a similar probability. However, where the two principles meet, information and order are created in the form of highly reduced degrees of freedom, in which differences between events become meaningful and informative. The new concept of complex order emerging out of self-organization. For a complex order to emerge, both determinism and indeterminism are needed" [24, P. 21].

A particular case presents a cultural-scientific tradition of digimodernism or informational autism, a reality digitalization product that permeates today literally all spheres of human life [11]. Since its first appearance in the second half of the 1990s under the impetus of new technologies, digimodernism has decisively displaced postmodernism to establish itself as the twenty-first century's new cultural paradigm. "It owes its emergence and preeminence to the computerization of text, which yields a new form of textuality characterized in its purest instances by onwardness, haphazardness, evanescence, and anonymous, social, and multiple authorship. These, in turn, become the hallmarks of a group of texts in new and established modes that also manifest the digimodernist traits of infantilism, earnestness, endlessness, and apparent reality" [11, P. 1). In the most general sense, according to A. Kirby, "digimodernism," properly understood as a contraction of "digital modernism," is a pun: it is where digital technology meets textuality and text is (re)formulated by the fingers and thumbs (the digits) clicking and keying and pressing in the positive act of partial or obscurely collective textual elaboration (Ibid). It is this cultural-scientific tradition that resonates most closely with the discussed problems of the cyberpsychology phenomenology.

Immersion in the digital world coexists with qualitative changes in a cyber-technological environment. We have seen a convergence of three principal technologies (computers, the internet, and mobile telephony) and a move from the limited desk and text-based interactions to more sophisticated and mobile forms of perpetual contact, which allow us to exchange all kinds of media from synchronous text to photographs, synchronous video, and audio clips. Internet use has become a ubiquitous, pervasive, and sometimes invisible part of our everyday lives, being accessed through all kinds of digital devices from satnavs and games consoles to tablet computers, mobile phones, and smartwatches. Therefore, the awareness of the "need for shift the focus of Cyberpsychology away from quantitative, experimental approaches exploring the 'effects' of human-computer interaction and towards a focus on the subjective experiences and sense-making of users in everyday contexts" [10, P. VIII].

The presented three scientific knowledge development lines raise the need to find integrative solutions, requiring definition in epistemological and methodological grounds. Within the framework of the cultural-dialogical interdeterminist approach, a new type of integration is proposed – dialogical, in essence, involving the joint development of mutually acceptable and sheared decisions having an inertial effect for a relatively definite period until the resource is exhausted for their productivity. Humans must be able to negotiate and adhere to the agreements reached, just as scientists and politicians should do this.

3. Method

The primary research method is the theoretical analysis of an existing psychological knowledge broad range, accumulated within the framework of different paradigm coordinates, traditions, and research fields. This analysis was actualized using the author's integrative-eclectic approach for psychological phenomenology analysis, which justifies the efficiency of a multiplicity of sources application [27]. The approach proposes the mechanism of interparadigm dialogue. It makes it possible to find consistently shared meanings in the applied conceptual apparatus and research methods. As an alternative to traditional logic, "or/or" is proposed dialogical logic "and/and." In the analysis of ontological-epistemological foundations of existing psychological knowledge diversity, is used the author's epistemological constructs "cultural-scientific tradition» and "sociocultural-dialogic interdeterminism" [29]. A synthesis of the psychological knowledge existing diversity and trends in its development understanding results is given in the sociocultural-dialogic interdeterminist metatheory of psychological knowledge integration. The system-forming construct of metatheory is interdetermination, denoting the process and result of the interaction of the whole elements, expressed in the acquisition of a new quality, not reducible to a simple sum of its constituent elements. At the same time, psychological phenomenology is considered from a systemic-synergetic approach, within which the system is viewed as heterogeneous, nonlinear, dynamic, and self-organizing. The focus of attention is the transitions from one qualitative state or the so-called bifurcation points and their prerequisites or attractors that provide them. Considering psychological phenomenology in general and cyberphenomenology, particularly as a process and result of bio-psycho-symbolic hetero-quality nature interaction, consciously-unconsciously-existential psychic spheres, actualizing in the spaces of

personality-environment-activity interdeterminants, conditions of balanced and disbalanced functioning are analyzed.

4. Results and Discussion

Radical changes in the conditions of human existence, associated with the doubling of reality due to technogenic and cyber, cause a rethinking of almost all psychological knowledge areas. This kind of rethinking involves reflection or available knowledge audit in terms of its ability to provide time-appropriate explanations and the basis for predictions. Moreover, this kind of reflection becomes extremely popular as a resource for psychological knowledge development. [19].

In essence, we are talking today about a kind of parallel existence of two types of humanity, *Homo Rationalis* and *Homo Virtualis*, who expands the received, old or traditional "ideal human model," "escapes the ideal human proportions, goes beyond the limitations of the natural environment by taking advantage of the technological developments and the emerging virtual, cyber environments" [12, P. 1). *Virtual reality* materialized from the fantasy world into real life and began to compete with real reality with all possible positive and negative consequences. Virtual reality is currently theorised as a symbolic heterogeneous medium, a complex semiotic technological digital environment or ecology (without hierarchy), which "strongly tends to replace its actual physical detonates. A semiotic complex technological digital environment, which shows a tendency not only to compete with the immediate physical and social environment, but to assimilate, to control, and to dominate it" [7, P. 142]. In the context under discussion, it is entirely appropriate to talk about the *Homo Cyberis*, immersed in cyberspace and drowning in it.

This calls for further theoretical-empirical research and careful scrutiny on complex patterns in our speedy, digitalised, and networked world, paving the way for exciting intellectual developments, scientific findings, and interdisciplinary conclusions. Especially now that the "post-Internet," or the "Next Internet," is emerging (from the dynamic convergence of Cloud Computing, Big Data Analytics, and the Internet of Things), new ambivalences, risks and challenges are being energised and posed for the quality of democracy, citizenship, and the political public sphere [17].

The most challenging task is to find the basis for ordering the knowledge infinity in the field of psychological phenomenology, connected with the person's being in the conditions of the social, cyber, and technogenic environment. First, this being is multifaceted. Secondly, it is actualized in the complex interaction of the biological, psychic, and symbolic heteroqualitative natures. Moreover, we must consider that purely psychological components outside the biological substrate's context can be isolated in abstraction only. Thirdly, the social nature itself is multifaceted in its representation in the multicultural context. The context introduces an aspect of the pronounced hidden presence of cultural differences, which cannot be ignored either in psychology or sociology and biology. Fourthly, on what concretely or subjectedly, these fields are based on inventing the infinity and the variety of psychological knowledge.

Human behavior is not a separate system. It functions under the conditions of a specific natural, social, technogenic, and cyber environment, forming particular types of reality, the influence of which psychology does not consider. Ignoring bodily substance in its interaction with the social environment through the psychic's unique ability to translate the external into the internal and vice versa is nonsense; however, it is typical for modern psychological knowledge. Not considering the heterogeneity of human natures (bio-psycho-symbolic) is nonsense, the complex interaction of which results in behavior. Likewise, this interaction has a mutually influencing and interdependent nature, leading to the formation of a new quality that cannot be reduced to a simple sum of its constituent parts or elements. A human (like the highly developed animal) adapts to environmental conditions, responding to external stimuli and adapts to his abilities, finding a compromise of adaptive properties or a state of internal-external balance. Furthermore, this state of balance is not static but fluid and follows the change in the social and natural environment. Explicit confirmation of this is the growing popularity of the biopsychosocial approach in various fields of knowledge, particularly in medicine [4].

The described qualitative features of being-in-the-world served as the basis for constructing a generalized author's multidimensional synergetic model of psychological phenomenology interdeterminants space's continuums presented in Fig. 2.

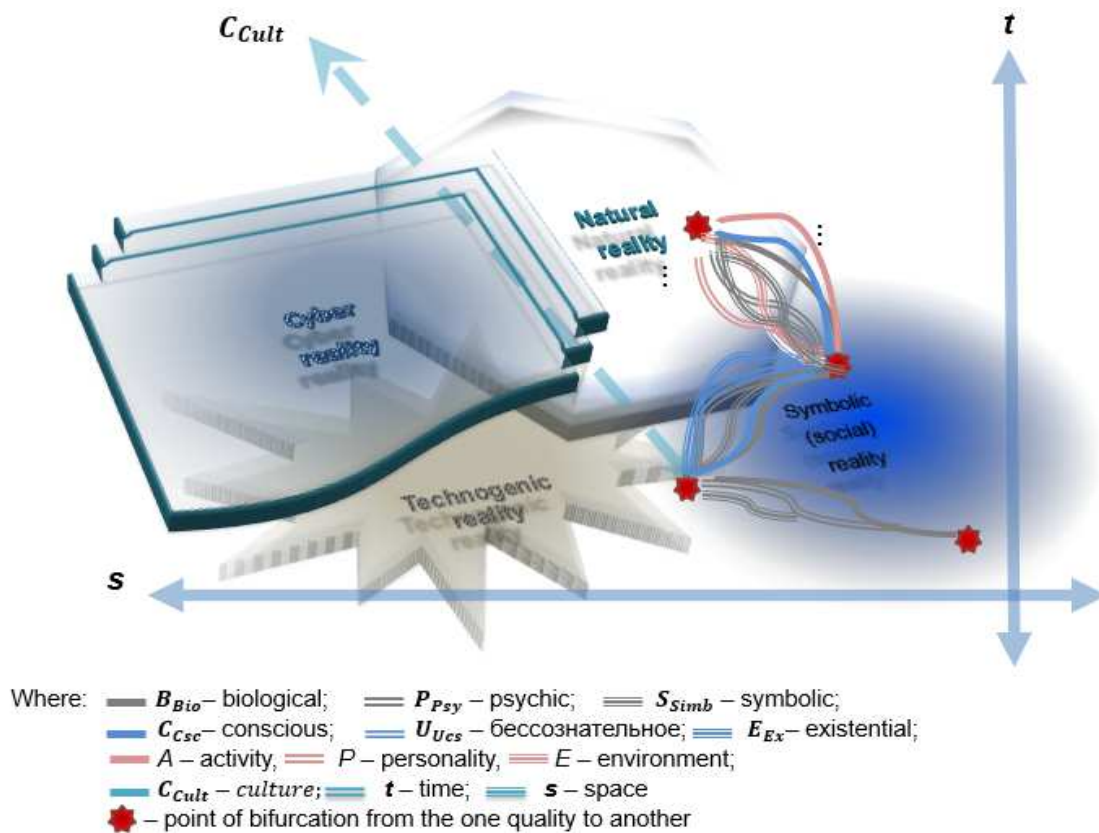


Figure 2: Multidimensional synergetic model of psychological phenomenology interdeterminants space's continuums

Psychological phenomenology is not static. It changes itself and the surrounding environment and vice versa in space and time. The system elements interaction is carried out in the conditions of multiple surrounding realities – natural, social, technogenic, and cyber, which in turn are in a constant process of mutual change and development. We understood a model as an integral set of internal and external bases, which interdetermines the behavior's uniqueness. These dynamic processes are precisely nonlinear, stepwise. Its general orientation is subordinated to achieving a state of balance between internal and external interaction with the natural and social environment, and now with the cyber-technogenic one.

Moreover, often these changes are asynchronous, leading to states of imbalance with the external and internal world, both at the level of heteroqualitative natures and psychic spheres. Additionally, all this takes place in changing nature, technogenic, social, and cyber environment in individual psychological and activity dynamics. In this process, there are peculiar bifurcation points that figure out the transition from one qualitative state to another.

A special issue is an interaction between the system elements, which leads to acquiring a new quality that cannot be reduced to its components' simple sum and mechanisms. The most known attempts of this problem solution relate to the names of outstanding metatheorists – K. Lewin [14] and A. Bandura [2]. In his Field Theory, K. Lewin describes the behavior as a function of the personality and its external environment $B=f(P, E)$. Characterizing K. Lewin's approach as unidirectional, A. Bandura has offered partly directional transformation of its formula $B=f(P \rightleftharpoons E)$, later being transformed into the principle of reciprocal determinism, representing the interaction of elements as mutually directed.

Interdetermination has been proposed as such a mechanism. At the same time, interdetermination is understood as a process and result of interaction, which manifests itself in the acquisition of a new qualitative state by the whole. The interdetermination relation emphasizes the mutually affecting and

mutually changing character, leading to qualitative changes in the interdeterminants components. Any change in one of the elements inevitably leads to a change in all interconnected elements. The changes that have occurred lead to the heterogeneous system quality transformation itself, receiving growths in the form of expansion (or narrowing), rethinking, and re-experiencing the acquired experience. In this case, we are talking about the dynamic aspect of phenomenology, and the nonlinear dynamic systems approach productivity to the analysis in the psychic functioning temporary transformation [1, 3, 26]. These mutual influence on what is happening resources presents the R.M. Ryan and E.L. Deci self-determination theory [18]. A person can influence what is happening, but he/she must also be aware in its turn, what is happening has a direct impact on him/herself. Passive inaction leads to an increase in external influence, and activity that is not burdened with cultural heritage involvement dooms him/her degradation and increasing dependence on circumstances.

Interdetermination is dialogical in nature – an interaction based on the unconditional acceptance of the heterogeneous (polyphonic = multivoiced) nonlinear dynamic systems elements Otherness, aimed at finding the mutually acceptable structurally-substantive basis and forms (often of a compromising nature) that contribute to the formation of jointly created, coordinated, and internally accepted states of homeostasis (intersubjectivity, inter-existentiality, bio-psycho-social balance, and others), providing their optimal co-existence in the context of a specific social and natural environment in the framework of local (zone of proximal development) space and time and a more distant life perspective (zone of distant development). Currently, it is becoming increasingly clear that the conditions of social existence interdetermine consciousness [15]. Similarly, it is clear that this existence is affected by changes in the natural, technological, and cyber environment, and the influence of the latter on human behavior, including organizational and, especially, intercultural behavior, is extremely poorly understood. The psychological phenomenology and its components have a staged nature, implying a transition from one qualitative state to another, in a synergetic version, through the passage of specific points of bifurcation.

The sociocultural-dialogic nature of interdeterministic interaction is manifested in the interaction between the elements of a heterogeneous nonlinear dynamic system, suggesting the dialogic nature of thinking, manifested: firstly, unconditionally accepting the Other, secondly, expanding horizons of comprehension, thirdly, gaining a new quality by the interacting parties; fourthly, the formation of community, compatibility (intersubjectivity, inter-existentiality), contributing to mutual understanding and coordinated interaction.

Due to intersubjectivity and inter-existentiality, it becomes possible to form shared meanings and experiences that make up the formation of the shared sociality, without which society ceases to be so, transforming into the mechanical unity of isolated individuals of a hedonistic sense, organizational and acting according to external management. As I. Markova notes, "The loss of commitment to one's words could result in the author's loss of self-identity and authenticity. Dialogicality implies a contract: responsiveness and responsibility. There can be no word without a speaker—words have their history. There can be no word without the self" [16, P. 258].

It should also understand that humans are not passive temporizers to this "new reality." They should actively participate in its co-construction, co-building, striving to achieve a balanced state of interaction with the social, natural, technogenic, and cyber environment. In turn, the achieved state of balance has an inertial effect on a particular time perspective before achieving contradictions of the critical mass state or bifurcation point. The transition to a qualitatively new state always presupposes changes in worldview, attitudes, habits, behavioral algorithms, experiences and feelings, and many other things determining their existential being-in-the-world.

Today it is becoming more and more evident that the new and innovative are displacing the old and the obsolete in a dynamic process. In search of a new meaning of "being human (and of being social as well), what we urgently need is to embrace exponential transformation and build a shared digital future in an agreed, reflective, sustainable, inclusive, and value-sensitive manner, over against fault lines and rifts" [22, P. 10].

5. Conclusion and theoretical implications

First, the system-synergetic analysis considers the psychological phenomena as heterogeneous, nonlinear, and dynamic, not as closed and static. Second, cyberpsychology phenomenology should be

understood as having a sociocultural-dialogic-interdeterministic character. Third, overcoming the limiting framework of personocentrism and environmentalism in isolation by giving them an interdeterminist character and connecting an active interdeterminant acts as a mutually conditioning part of the behavior process. Forth considers the ongoing changes in the context of acquiring a new quality by the system, which cannot be reduced to a simple sum of the elements composing the whole.

Characterizing the presented metatheoretical approach in general, we can state the following:

1. The starting point is the complex bio-psycho-social culturally conditioned heterogeneous nonlinear dynamic nature of the cyberpsychology phenomenology functioning in natural, social, cyber, and technogenic reality. Awareness that many personalities, psychic disorders, and psychological problems are associated with biological disorders manifested in psychic activity disorders and, conversely, many of the biological level dysfunctions have a psychological underpinning (a glaring example of which are numerous psychosomatic disorders). These and others are often provoked by social disharmony (and, in turn, determine it), which is actualized in interpersonal contradictions and related interpersonal and intrapersonal conflicts, which cause discomfort in social interaction resulting from dissatisfaction with oneself.

2. The biological – psychic – symbolic, as well as the conscious – unconscious – existential, personality – environment – activity, and natural – social – technogenic – cyber realities, are in a state of dialogic interdetermination, manifested in their interdependence and mutual influence, expressed in acquiring a new quality not reducible to the simple sum of its constituent parts. A qualitative change in one element inevitably leads to changes in designated heterogeneous system interconnected elements and vice versa. In particular, unbalanced immersion in technogenic and cyber reality leads to various kinds of dependencies. The acquiring of dynamic heterogeneous system new quality presupposes the preliminary preparation of each of the elements for the future qualitatively new state, including the bio-psycho-symbolic and cultural preparedness formation, awareness of the new state uniqueness and the potential changes associated with its acquisition, preventive correction of potential unconscious contradictions and inconsistencies fixed in the experience of the old new, contributing to the existential acceptance of the altered self in his being-in-the-world and recognizing himself as a self-interdependent agent.

3. The heterogeneous nonlinear dynamic system's optimal state is provided through the dialogue of heteroqualitative natures, psychic spheres, and behavioral interdeterminants, ensuring the holistic functioning balance by finding and mutually developing mutually acceptable compromises and co-existence optimums. Once this balance is broken, various disharmonies and dysfunctions begin to manifest, stimulating the overcoming resources search. The specificity of the dialogical form of interaction in the dynamic heterogeneous system is manifested in the co-participants Otherness unconditional acceptance in the functioning process, orientation toward finding mutually reinforcing solutions, the formation of special kind bio-psycho-symbolic, consciously-unconsciously-existential homeostasis, creating a common basis for coordinated and synchronized mutual understanding and mutual development in the context of the specific natural, social, technogenic and cyber environment and being carried out activities.

4. The deepening and expanding interaction with a qualitatively new type of cyber-technogenic reality can lead to ecological balance violation of functioning in society. Digi- and cyber- autism manifest in this kind of imbalance, expressed in self-isolation and existential loneliness. The destruction of the being-in-the-world balance, in turn, can lead to severe mental disorders, the growth of which is becoming increasingly evident. Therefore, one of the cyberpsychology's primary tasks should be searching for possible forms of restoring the eco-balance and its conditions. Otherwise, *Homo Ludens* may be replaced by *Homo Cyberis* and *Homo Virtualis* with all the ensuing destructive consequences. As well as the need to shift the focus of cyberpsychology away from quantitative, experimental approaches exploring the 'effects' of human-computer interaction and towards a focus on the subjective experiences and sense-making of users in everyday contexts.

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