MODERN PSYCHOLOGY: SYSTEMS MEANING OF A PARADIGM SHIFT

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The article is focused on the history of psychology from a perspective of its paradigm shifts. Based on the transspective analysis, the author identifies the grounds for progressive development of the psychological science as an open self-organizing theoretical system. The transspective analysis is also considered a methodological tool for studying self-organizing psychological systems. It is asserted that modern psychology is moving toward a post-non-classical paradigm within the framework of which psyche and consciousness acquire a new explanation.

The very mentioning of “a paradigm shift”, not talking about specifying the direction in which it is going, in science today challenges the mainstream methodological guidelines due to which psychologists themselves prefer to consider their science “principally non-paradigmal”. In this case it does not matter whether a scientist considers his science being “prior to a paradigm” (i.e., being a science that now does not have current “commonly accepted patterns of scientific practice” but will develop them over time) or being “multiparadigmal” or “polyparadigmal”. It is clear that there can be no paradigm shifts in a multiparadigm science. If there is a multitude of methodological guidelines accepted at the same time, and there are new orientations “enjoying equal rights” being constantly added, then the development of a new theory cannot be evaluated as a sign of a paradigm shift. It is not by chance that those who support the paradigm “let all the flowers bloom” appeal to P. Feyerabend's proliferation theory. Regarding appearance of the new theories based on their own, inherent “paradigms” as a paradigm shift would not be completely right: a cumulative effect is obvious, but a progressive effect needs to be further identified. This is in principle impossible to have been done without comparison with other theories. Comparison of one theory with other theories is not approved within the paradigm of “free proliferation of theories” as it does not follow the initial principle of equal rights of theories. What if it turns out that one theory is really more “fundamental” than the other one or more correctly fits the mainstream direction of science development thus really defining essential features of a paradigm shift. However, science considering it being multiparadigmal is not interested in the developmental tendencies leading into the future. This science lives in the present day.

Questions about the progressive development of science, about trends in the ideogenesis, about the succession in the formation of the scientific cognition are dealt with in epistemology. These questions in particular, having not been convincingly resolved in the philosophy of science, turn out to be critical for psychology which keeps evaluating its state as a “permanent crisis” lasting (against any logic (dialectical in the first place) for about a hundred years. The fact that progressive increase in science complexity is really happening has finally become clear in the middle of the past century, but the question about the nature of this complexity is still open for discussion. The thing is that almost all non-classical epistemology is rested on the Darwinist approach to evolution transferred to an alien subject field. For example, K. Popper views the evolution of scientific knowledge as a Darwinian process in the result of which theories become better adapted (Popper, 1984). The problem is that no one has found yet examples of a real fight of a theory for survival that would have led to a theory's qualitative “improvement”.

How is the fight between schools representing different formations of the scientific thought and different levels of professional psychological systems thinking possible? And how is an agreement

between them possible? If theories belong to different levels and have different axiomatics, then they might be incoherent to such a degree that the last foundations making the very act of interaction happen will disappear. It would be impossible to reach an agreement or come to cohesion without this act of interaction. “The complementarity principle” will not lead theories to cohesion if they have nothing to complement each other with.

Realities of our modern science are such that for the majority of psychologists it is not simple to agree on the very possibility of the existence of some criteria base for evaluation of the future prospects of a scientific theory through (depending on) the degree of its compliance with the objective tendencies of the development of the scientific cognition. “The cult of fragmentariness” - the legacy of the non-classical science is thriving in psychology today. Moreover, it is thriving against a background of the farewell with the cult of the homogeneous classical knowledge that has not happened yet. On the other hand, a special method making these tendencies objective is needed for identification of the developmental tendencies of science.

A method initially existing in the form of the historical-system approach and known now as the transspective analysis has been elaborated over a long period of time. The scope of the article does not permit a detailed discussion of the method - there is a book devoted to it (Klochko, 2005). I would note, however, that the most complicated issue concerning implementation of the transspective analysis methodology is the necessity to apply a higher level of systems thinking. The transspective analysis is a method of cognition adequate to the post-non-classical science. The method demonstrates the fact that science being understood as an open, progressively evolving, regularly increasing complexity in the process of its development system sooner or later will develop tools for self-cognition. In other words, evolution of cognition hammers out the tools for the cognition of its own evolutionary regularities. The transspective analysis is one of these tools. In the transspective analysis it is required that the historic time of an emerging system must not be viewed as the past, the future or the present but must be viewed as an exceeding these time frames process of turning the polyvariational future into the monovariational past, i.e., as a process which in transspection is not separable from the process of turning the polyopportunital environment into the environment of system's own emergence.

For science this environment exists in the form of culture including other sciences, religion, established and developing world views, approved and still being approved forms of thinking etc. Identification of movement transspective is possible only where regularities defining movement exist, where a real transition of opportunity into reality happens. For example, complexity growth of the systems organization in the developmental process is a regular one only for open systems. Due to this fact, it is better to use another word “emergence” in relation to systems of this kind instead of the word “development”. It is caused by the fact that emergence is not a “general” feature of an open system but a “generic” one, i.e., the feature which defines the way and a mechanism of system's sustainable existence as a self-organizing system. In the field of science such systems get covered comparatively late - as science does not start with those systems. But when science had grown up to the level of identifying self-organizing open systems, it acquired a new paradigm base which was so different from basal orientations of the previous stage, that it has become necessary to introduce a new concept – “post-non-classicism”.

Interesting things can be discovered if we make epistemology the subject of the transspective analysis. For example, the fact that P. Feyerabend cannot be ranked on a par with his contemporaries: he develops an understanding of science as an open system, consequently, he can be considered as a founder of the post-non-classical epistemology His major contribution is not in the idea of science development in a horizontal plane through the increment of new theories but in

the thought that science comes up to "harmonious development" and turns out to be capable of assimilating what facilitates its progress whether it is religion, mythology or mysticism from cultural environment through this increment. In the introduction to the German edition of his major book P. Feyerabend reveals the genuine goal of writing it that is to support the general systems theory and philosophy of N. Bohr (Feyerabend, 1975).

Undoubtedly, P. Feyerabend knew the nature of unrestricted epicycles growth and its consequences very well. When one has to apply a growing number of new Ptolemaic epicycles, the number of which is getting close to absurdity, for explanation of some phenomena within the frames of a simple, let it be even a very "self-evident", system (for example, geocentric), a transfer to a more complex system becomes necessary. The dilemma here is simple: the choice is to either multiply epicycles within the frames of a simple (initial) system or to change the systems level opening a more complex system in relation to which a simple system becomes a subsystem. That is why P. Feyerabend views the goal of the research in the support of the general systems theory which by that time had already undertaken the elaboration of the open systems theory. Self-organization is the way of existence for those systems leading to self-development of a system. Today, as it has already been mentioned earlier, identifying and researching self-organizing systems is considered a distinctive characteristic feature of the post-non-classical science.

Generally speaking, "proliferation" of theories seen in a horizontal plane of actual being of science and evaluated sometimes as an inherent form of its development "in breadth" is only a necessary condition for its sequential movement "forward and upward" accompanied by the "consolidation" of knowledge and scientific principles in the process of science's spontaneous integration. At this point I have to make a brief, though a highly significant for me comment without which understanding not only the above-mentioned idea about the cohesion of theories being the cause for their interaction but also the logic that has predetermined sequence and content of the set forth below will be complicated.

To make the interaction itself possible such cohesion between the opposing parties (systems) is necessary when each of those (of the parties) sees in the another "its own other" which has not yet become genuinely owned but having not been interiorized, i.e., having not been included into its own system, puts to doubt the possibility of a sustainable existence of a system. In all of my publications I consistently assert this emphasized thesis, supposing that there is the law behind it that creates order in the known to us Universe - the law of interaction restriction. Chaos exists only where there are no interactions or any interactions are permitted. Interaction that has already occurred by the very fact of its occurrence points to the coherence which has become the cause for interaction. Interaction reflects coherence to the same extent to which coherence is viewed as the only and sufficient cause of interaction. In this I see a mechanism of self-organization which belongs to open systems. Interaction happens spontaneously where there is coherence. Only open systems are capable of maintaining internal order through the selection of only those things which are capable of providing that order from the environment. Growing complexity in the every act of interaction through the acceptance into itself of "the own other", systems increase the level of their systems organization by restructuring and incorporating "the own other" and thus keep living as long as they increase complexity. This makes self-organization be a condition for self-development of open systems. This is the way I view the nature of a system's evolution, whether a system is either a person, or a scientific theory, or a biological system, or any other system which can be considered an open one.

The axiomatic base of the theory of self-organizing psychological systems (TPS) was founded on these principles. Science has already acquired the way of thinking through which it learned to

identify self-organizing systems in psychology and make them subjects of a specific scientific research. The core of a paradigm shift is that today science is trying to assimilate a higher level thinking which is characterized by the ability to identify self-organizing systems and make them subjects of a psychological research. Because of that, there exists a certain psychological tension in the psychological academic community. Transition from one problem (self-regulation) to another one (self-organization of a person) is very difficult. In the process of such a transition another understanding of psyche highlighting its new functional role is revealed as well as another explanatory base is needed; but the main challenge is the need for another level of systems thinking. I have become convinced in that having had more than twenty years of experience in the development of systems anthropological psychology (TPS).

It can be stated that psychologists gradually begin to differentiate between the concepts of "self-regulation" and "self-organization". However, by many they are still being viewed as synonymous. Meanwhile, these two concepts are not just different from each other, but their difference is being the ground for differentiation between the two epochs in the development of the psychological thought, between the two different ideas defining a paradigmal status of science at different stages of movement of a psychological cognition, between the two different views on a person as a subject of psychological science. Orientation and content of psychological practice depend significantly on the establishing image of a person in psychology. As long as there is no integral (holistic) person, his place is taken by everything that can be anthropomorphed, i.e., by all to what functions of an integral (holistic) person can be attributed. From time to time these functions are being attributed to an individual, a subject and a personality leading to this strange "psychology for the three" (V.P. Zinchenko).

Certainly, one can identify many facets and aspects of a person by changing the "viewing prisms". Various approaches and conceptions appear within the frameworks of which researches are trying to integrate the knowledge gained through these "prisms" into some kind of a holistic idea about a person. These functions are being redistributed between a personality, an individual and a subject with the appearance of new approaches and conceptions. This becomes especially noticeable in the periods when leading roles in science are taken by this or that aspect giving rise to the next author's "psychology of a personality", "psychology of an individual" or "psychology of a subject". I do not want to argue about which one of these conceptions fits best the holistic understanding of a person. It seems to me that it is more appropriate to pose a question on a principal possibility of getting a holistic understanding of a person through the integration of the existing aspect knowledge about him. I do not want to fall into truism by reminding the parable about an elephant which was (quite thoroughly, by every aspect) studied by blind wise men. Even "psychology for the four" (adding the "prism" under the name of "individuality") will not change the situation.

Thus, psychology began its way by defining the empirical area of phenomena that were recognized with the help of self-observation and attributed to the sphere of psychic phenomena. Psychology continues its way by constantly broadening and deepening knowledge about these phenomena fairly thinking that if they belong to a person, then it means that psychology studying those phenomena studies a person. Only today psychologists acquire a conscious understanding of the fact that the subject of psychology up to the present has only been a part of a whole person (psyche) that has almost not been studied in its interrelations with its whole. To put it differently, only today occurs a conscious understanding of what we are trying to guess, using the metaphor by L.S. Vygotsky, the mission of "a telephone set" by studying a telephone set itself, i.e., not taking into consideration the mission of a "telephonist" (a person). "One cannot draw analogies between a human behavior and functions of a telephone set. But a telephone set + a person" (Vygotsky, 1986, p. 63).

As a matter of fact, anthropologization of psychological cognition is the transition from a discrete understanding of psyche and consciousness to a completely different methodology - to the understanding of a continuous nature of the psychic. Discrete understanding is based on the idea of the holistic nature of psychic phenomena: "their "indecomposability" "into the pieces" is usually mentioned as one of their fundamental properties. "Being diverse, psychic phenomena function as phenomena having the same nature. That is why they themselves may be viewed as a system. The unity of psyche as a system is reflected in its general function: being a subjective representation of an objective reality, psyche controls behavior" (Lomov, 1984, p. 86-87). If in physics the field theory reached and outgrew the discontinuity theory, then in psychology psyche and consciousness are understood more often up until now as closed, discrete units with hierarchic organization, with own structure and even with own logic. It becomes clear with the help of the transspective analysis that the thought of a spatial continuity of the psychic has been maturing in psychology over a long time along with the ideas of the psychological field (K. Lewin), the field of senses (L.S. Vygotsky) and the transsubjective area (D.N. Uznadze). The psychic is what provides grounds for a long-range action of a person viewed as an open self-developing system.

Thus, the tendency of anthropologization can be traced down in the history of psychology. It has been forcing its way for a long time, but it stops being a tendency; it acquires paradigmal grounds only in the science that has acquired a post-non-classical face. In that case it is probable that the necessity to follow independent basic principles of the scientific psychology will disappear. These principles are established in the scientific psychology as special tools of understanding and explaining the psychic to such an extent that they seem to be "methodological "fossilized" scripts" imprinted forever in the scientific psychology. If previously it was possible to find certain grounds for explanation of why the determinism, systems and development principles which though were recommended to be used together (as complementary) have had to be understood as separate ones, then today this understanding and use of these principles do not make sense.

Why is the systems principle needed if it does not involve the "idea of development" which in this case has to be added? If the subject of the research is a self-developing system existing in the regime of a continuous complexity growth of its systems organization, i.e., in the regime of emergence, then differentiation between the development and systems principles in relation to that subject losses any sense at all. In this case one needs to figure out how does transition of opportunity into reality happen and why does it happen in some cases and does not happen in other ones. Why are determinism principles needed which rehabilitate the dichotomy of the internal and the external, the objective and the subjective, attributing extensive or intensive character to one or another pole of this dichotomy ("external causes act...", "the internal interacts with the external") in different conceptions? These principles originated at the time when psychology has not yet recovered from "gnoseologism", but the understanding of a person as a self-developing system does not allow of this dualism. In these systems those factors turn out to be the determining ones which the system creates itself and which it follows in its further development (systems determination, self-determination). Here it does not make sense to differentiate between subjective and objective, the external and the internal. Here objective and subjective reality becomes indiscernible. Psychology, however, has for the first time an opportunity to explain how is a shear fabric of the "multidimensional life space", which is involved in the content of the concept of "a person" as its most "human" constituent, woven out of these two realities. It only becomes possible to explain the nature of the sense of reality and become aware of the mechanism of its destruction in different forms of derealization encountered with in the psychiatric practice, having acknowledged this life space in its mentioned quality. It also becomes possible to find an explanation of why does a person

in normal condition understand the sense and value of his actions and does not understand them having systemic disorders.

Tendencies of scientific development manifest themselves in the following. For example, they manifest themselves in the fact that two researchers remote from each other not only geographically but also methodologically turn out to be very close at the level of systems thinking. That is reflected in the similarity of the conclusions which can be drawn from the results of their own research. I would like to quote one of the latest works by D.A. Leontyev in which he writes that "there are other more elaborated conceptions developed in the field of theoretical psychology in which the concepts of self-regulation and self-organization as well as the idea of their progressive complexity growth in the process of an evolutionary development are considered to be fundamental for understanding functioning and developmental processes of a psychological organization of a person. The theory of evolutionary development by M. Csikszentmihalyi and the theory of psychological systems by V. Y. Klochko relate to those psychological conceptions in the first place" (Leontyev, 2007, p. 70). From my part, I would note that namely Dmitry Alekseevich Leontyev during a personal communication (which has happened before our articles have been written) brought me to a thought that both the theories are built "on the similar basis, though following different logics". He knew my works, but there is no doubt that he knew works by Mihaly Csikszentmihalyi even better, who together with Martin E.P Seligman laid the foundation of positive psychology in the year of 1997. D.A. Leontyev, participating in the First International Conference on Positive Psychology in September 2005, interviewed M. Csikszentmihalyi, whose evaluation of what he thinks is the most important in a person struck me. I was struck in particular by his convincement in the fact that "a person develops in the direction of an increased complexity; our fate is to steadily become more unique and more integrated with the Other: other people, ideas, values, with what is outside us" (Leontyev, 2005).

Completing my latest book, I wrote that "...and science, and humankind, and a person can be considered as open self-organizing systems which evolution is a regular complexity growth of their systems organization" (Klochko, 2005, p. 166). So, what is the idea behind the mentioned "similarity of the basis and difference in the logic" that led to the development of the theory of psychological systems (TPS) and the flow theory? This question has been significant one for me for a long while. The answer to this question would have let to prove by own experience the way that objective tendencies of the psychological cognition development act and manifest themselves; the tendencies which by the definition of L.S. Vygotsky act "behind the backs of some researchers and theorists with the force of a steel spring" (Vygotsky, 1982, p. 124).

At this point it is necessary to go back to the origins of the two theories. As I understand now, there was something in common at the initial stage of their emergence. My scientific focus was the so-called "free initiation of thinking". Experiments carried out between the years of 1972-1975 showed that in every act of interaction a person reflects the object and himself (his attitude) manifested in the object in a certain way. Environment which was perceived by a person as something objective and located outside of a person reacted to each change in a person's state by changing the value-sense structure which being a pretersensual was not realized by a person. But results of the research with the implementation of the method of synchronous registration of a galvanic skin response and content analysis of the unwinding activity, which was developed and applied by us (colleagues and followers of the scientific school of O.K. Tikhomirov), showed that the "objective environment" adapts to a person not to a lesser extent to which a person adapts to the environment. "Elements of the situation which is being structured, acquire different sense and value for a subject, and these informal components appear as a result of correlating the existing subject's experience (knowledge, means) with a particular situation" (Klochko, 1978, p. 5). Where there is a correlation between an experience and a situation, a person experiences the state of a "tensed

opportunity". This special state develops in the case when a person suddenly discovers an opportunity to organize a creative thinking (mental) activity in the space of a trivial activity defined by an instruction (sometimes even implying a "reward") and organizes it in an initiative manner which seems to be external and "impractical" if we take into consideration the loss of external "benefits".

It is interesting that almost at the same time (in 1975) an American researcher M. Csikszentmihalyi began developing the flow theory. Starting since 1982 flow has been considered by him an "optimal experience" understood as a choice of the most complex problem out of those made available by an environment. Though only those problems get chosen which are consistent with the existing skills and abilities and thus can be solved (Csikszentmihalyi, 1982). M. Csikszentmihalyi emphasizes that the flow experience brings to a person a feeling of discovery and creative feeling of transition to a new reality (Csikszentmihalyi, 1990). In our turn, we empirically showed that this new reality was shaping in the process of value-sense dimensions dynamics of what constitutes the environment. I think that both the theories in their initial development encountered the phenomena which could not have been interpreted within the commonly accepted at that moment explanatory schemes. We really got confronted with the process of transition of opportunity into reality; with how this transition occurs in a person and with how a person self-fulfills himself in this process through realizing his transcendental, rule-making nature and his overadaptive (heterostasic) essence in it. Due to the fact that these phenomena could not have been explained within the framework of the "psychological homeostasis", which at that time had almost had a paradigmal status (which it has not lost until today), these phenomena were absent, in a sense, for psychology as facts deserving "scientific attention". At the most, they were viewed as artefacts or painful (almost pathological) disorders.

Homeostasis, as became known starting with W. Cannon, is characteristic of complex, self-organizing systems. Its essence is maintaining parameters which are crucial for system's preservation within the tolerable limits. I want to note that adaptive behavior can also be described in terms of a system's tendency to restore the balance with the environment with the help of self-regulation. What both of us (I and M. Csikszentmihalyi) have encountered with in our laboratories could not be described by condition parameters ("stabilized condition"), and demanded to search for such parameters which would provide for sustainability of a longitudinal change process ("stabilized flow"). A special logic was required - the logic of the "psychological homeohresis", i.e. homeohresis adequate to the psychological self-developing (self-organizing) systems. The term "homeohresis" was coined by an English biologist C.H. Waddington in 1957 to identify and define special processes of maintenance of permanency in a developing system. Those systems were simple (biological) systems. We encountered with a special phenomenon -manifestations of homeohresis at the level of the most complicated out of all known self-developing systems - at the level of a person. In the book "Personality Theories" L. Hjelle and D. Ziegler found a way to show the extent to which each of the theories being analyzed is based upon homeostasic or heterostasic approach to a personality (Hjelle, Ziegler, 1992). However, it is not possible to completely comprehend the nature of homeostasic as well as heterostasic manifestations in a person's behavior without a reference to homeohresis. Relying on the vast body of empirical data, I purposefully emphasized that fact in my doctoral thesis (Klochko, 1991). Nevertheless, the problem of the "psychological homeohresis" is almost not being discussed in our science. In general, it is quite clear: understanding development as a transition of opportunity into reality has not yet acquired a paradigmal status in psychology. However, the fact of emergence of so externally different theories confirms that this status is being established.

Each of the emerging theories accounted only for a part of what the phenomenon of transition of opportunity into reality was constituent of. M. Csikszentmihalyi asserted a result-oriented component: a person “falls away into the flow” if what surrounds him is consistent with his abilities. I was initially interested in the processual and dynamic constituent of this phenomenon. How exactly is it happening? What role is being played by the fact of consistency itself? How is a person projecting his abilities, his experience, his current state into an object environment, and how is the environment replying to him through changes in its state? To answer these questions it was necessary to shift from a discrete understanding of psyche and consciousness to a completely new methodology - to an understanding of a continuous nature of psyche. That was the point when a special type of analysis was needed to analyze the process of emergence of psychological cognition; the analysis which I called later - transspective.

The mechanism of a scientific theory movement to a higher level of systems vision of a psychological reality can be generally represented in the following way. Development of any science is characterized by the fact that the science starts with “static” and only gradually shifts to studying “dynamic” features of phenomena that constitute the subject of a science. Even in this, °ne can see some, and quite explainable on the whole, regularity in the movement of scientific cognition. Having empirically defined a phenomenon (or even some “complete whole” of phenomena), scientific thought quite soon became convinced that “fragment of reality” defined as an object of study begins to escape from researchers. It concerns in particular the aspect which deals with object's essence, its true nature which is defined not only by itself (an object of study) but also by its belonging to a more complex system one of which fragments an object turns really out to be.

Thus, it comes to the fact that the science is doomed to being focused on an empirically identified object of study and keep crossing its borders continuously by sequentially and regularly broadening the subject field of a research as well as by theoretically defining (and redefining) it. Crossing the borders drawn by science at a given stage of its movement of an established subject field becomes inevitable when a problem field exceeds the subject field. The rise of the problem field is caused by a limited character of explanatory schemes declared by a chosen method which defines the content and configuration of a subject field. In other words, a top-down determination, going down from the very fact of existence of a more complex but yet unknown system in relation to which the system under consideration is nothing more than a subsystem, cannot be abolished. That is why the problem field of science inevitably exceeds, not right away though, its subject field. It happens because some researches facing the effects of an indicated “top-down determination” sooner or later start evaluating these effects not just as “mind-breakers” naturally appearing in the process of “placid” science development (“bottom-up”, “from the past into the future”) but try to discover their true origin.

Thus, the transspective analysis allows answering the question that remains open in epistemology: *how can an empirical fact falsify the scientific theory which structures the fact itself?* Quite a lot of lances have been broken over this question by such representatives of the “historical school” in the methodology of science as T. Kuhn, I. Lakatos, A. Masgrave et al. The answer to this question sounds surprisingly simple: *a theory is forced to falsify itself producing facts which explanation requires a transfer to a theoretical system of a higher systems level.*

A series of experiments had been completed by the year of 1978. Conducting these experiments I was not even thinking about the fact that “penetrating” into the heart of the most closed process - the transition of opportunity into the reality - happened with their help. The challenges were related to the “motive-building senses” which appeared as pretersensual (systems) object qualities. These object qualities showed directions to a person in which he could realize his opportunities and were

bound up with the purposes of realization of those senses. It became clear that a sense without the inclination for action in relation to an object which has a sense is as nonsensical as an inclination to act without a sense. The most remarkable fact was that it was not possible to understand the origins of those senses within the framework of an original methodology. It was not a sign of self-regulation as self-regulation would have been added later when the cognitive goal turned out to be formed. It was hard to imagine that senses appear on their own and that we directly faced the products of self-organization which were constructed in the process of activity but not by the activity itself. These products were not generated by a personality, though, we mechanically called them "personal senses" ("lichnostnie smisli"). They were inseparable from their bearer - from an object which special (pretersensual) feature of they were of. Finally, they were not generated by consciousness because it followed the senses - as only what had a sense was always included in the scope of a clear consciousness. Emotions "sublated" senses; however they introduced not a direct sense itself in the consciousness but an object which had a sense. In principle that was a solution to the problem of realization: a person sees in the world what corresponds to him at the moment but in the way it exists "in reality", i.e., without him (the presence effect). It turned out that it were not the emotions that "laid on the surface of consciousness" (A.N. Leontyev), but it was consciousness that laid on the surface of emotions. Changing states of a person instantly get reflected in the change of a living space, in rebuilding its value-sense dimensions. As a sense is always connected with the orientation, with the readiness to realize a certain behavior in relation to an object which has a sense, the origin of forces causing movement of a system along the line "an opportunity - a new reality" becomes clear.

Gradually the understanding has been developed that psyche is nothing but the most powerful, the most refined and the most complicated out of known to us mechanisms of selectivity turning "the world in itself into "the world for us" that is a multidimensional life space being inside of which a person can act understanding the sense and value of his actions. It has become clear that psyche and consciousness are not organs of control built-in a person, not organs of regulation subjecting a person, not means of orientation based on an inherent ability to reflect environment. Psyche (consciousness) - is with the help of what a system (a person) becomes an open one, i.e., capable of selective interacting with the environment, that being the ground for its turning into a multidimensional human world. Emergence of such a world is [a] condition for a sustainable (conscious, realistic and efficient) being of a Person in a continuously created by himself living space. In this one can see the initial sense of self-organization. One simply needs to agree that science cannot pretend any longer that it managed to reconcile this orientation to study of "what has become of" with the development principle which implies transition from introspection to a perspective analysis. Where there is an exchange with the environment, there are irreversible changes interpreted as signs of development manifesting them not only in an open system but also in an environment which the system is open to. One can figure out by this that further interactions will happen with an already changed environment with which by definition the system has not ever had experience in interaction; and then a lot of questions arise. For example, what is "adaptation" and what problems can science resolve within the framework of the "psychological homeostasis"? What is "experience" ("what has become of") to which the classical and non-classical science appeals to? A system has to create order parameters by itself and produce them anew every time - that is the nature of an exchange. Values and senses are dynamic order parameters in psychological systems. That is why they function as a subjective "layout" of the objective reality singling out of indifferent "environment" (or indifferent "surroundings") what agrees with a person here and now as the necessary requirement for life. Interaction being understood not in gnoseological but ontological way leads to the idea of connection between psyche and creation of a multidimensional world of a person, acquisition of value-sense dimensions by him providing reality, object based nature and

validity for his being. Exchanges transform not only a person who becomes a different one with every taken up into himself “shot” of the external but also the external which “transcends itself” due to the interaction and becomes a subjective ground for further development of a system.

If to draw an analogy between the dialectical and the transspective analysis, the latter is a type of thinking that matured (is maturing) on the basis of a dialectical thinking and contains it in itself in a “sublated” form. The main guideline of the dialectical analysis is a development through which (“in which”) it is necessary to study any cognizable phenomenon. The main guideline of the transspective analysis is emergence through which (“in which”) it is necessary to study special objects - open self-organizing systems. In the first case the source of development is considered to be a contradiction; the vehicle of development is viewed as a struggle (of new and old forms, oppositions etc.). The source of emergence is a consistency which leads to interaction accompanied by a creation of systems qualities – “order parameters” which define progressive logic of system's genesis.

New image of science grows out of the methodological views and guidelines characteristic of the preceding stages, out of the potential to move “forward and upward” which is contained in them, providing for succession of the process of emergence of the psychological cognition. Science is an open system regularly increasing complexity in the process of internal and external interactions. Emergence as a regular complexity growth of science's systems organization is considered to be the form of its existence. The history of psychology sooner or later will learn to identify places where “here and now” undergoes quite an anguished process of “scientific tissue degeneration”, where the nerve of science is strained, where the objective tendency of science fulfills itself. To put it differently, history of psychology will learn to analyze not only what lies within the quite conditional borders of a psychological knowledge but what is happening at the border where a new knowledge is coming into being, is emerging. Making a prediction, one can say that the most serious and challenging issue will be related to the reconsideration of approaches and methods of the historical-psychological cognition that do not take “the border effect” into consideration. *The more complicated is the level of system s organization, the more difficult it will be to develop a new level of systems thinking. Being at a new level of systems thinking it is easier to generate scientific explanations.* It becomes easier to come up with explanations of those phenomena for which within the frames of a simple system one had to pile up mountains of the “psychological epicycles”. These mountains being “hollow” knowledge hang as dumb-bells, burden and overload science with irrelevant and excessive knowledge impeding regular movement of science “forward and upward”. These “psycycles” tend to accumulate mostly in those areas where scientists are trying in vain to find an explanation of a principally heterostasic human nature by applying a customary scheme of the “psychological homeostasis”.

REFERENCES

1. *An exclusive interview with Mihaly Csikszentmihalyi* (D. Leontyev, September, 2005) - retrieved from http://www.positivepsychology.m/history/ interview.htm

2. **Csikszentmihalyi, M.** *Toward a psychology of optimal experience* // Review of Personality and Social Psychology / L. Wheller (Ed.). Vol. 3. P- 13-36. Beverly Hills (CA): Sage, 1982.

3. **Csikszentmihalyi, M. Flow**: *The Psychology of Optimal Experience*. New York: Harper and Row, 1990.

4. **Feyerabend, P.K.** *Against Method. Outline of an anarchistic theory of knowledge*. London, 1975.

5. **Hjelle, L., Ziegler, D.** *Personality Theories: Basic Assumptions, Research, and Applications*. 3th ed. McGrow-Hill, 1992.
6. **Klochko, V. Y.** *Goal formation and formation of evaluations in the process of identification and solution of intellectual tasks.* PhD thesis abstract. Lomonosov Moscow State University, 1978.
7. **Klochko, V.Y.** *Initiation of a thinking activity*. Doctoral thesis abstract. Lomonosov Moscow State University, 1991.
8. **Klochko, V.Y.** *Self-organization in psychological systems: problems of mental sphere of a personality emergence (introduction to the transspective analysis)*. Tomsk, 2005.
9. **Leontyev, D.A.** *Emergence of self-regulation as a basis for psychological development: an evolutionary aspect* // Subject and personality in the psychology of self-regulation. Ed. By Morosanova VI. Moscow - Stavropol. Russian Academy of Education, Institute of Psychology, 2007. (Fundamental Research in Psychology).
10. **Lomov, B.F** *Methodological and theoretical problems of psychology*. Moscow: Science, 1984.
11. **Popper, K.A.** *Evolutionary Epistemology* // Evolutionary Theory: Paths into the Future / Ed. by L.W. Pollard. P. 239-255. John Wiley&Chichester and New York, 1984. - retrieved from http://www.uic.nnov.ru/pustyn/cgi-bin/htconvert.cgi/popper.txt
12. **Vygotsky, L.S.** *Historical meaning of the psychological crisis* // Collected works in 6 vol. Vol. I. Moscow: Pedagogics, 1982.
13. **Vygotsky, L.S.** *Concrete psychology of a person* // Moscow State University Newsletter. Series 14. Psychology. Vol. 1. 1986.