

General Psychology

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Studying Principles of Combine Psychological System

Some of the general ideas of a new trend – the theory of psychological systems – are stated in the article. This trend is considered in the frames of postnonclassical paradigm becoming in psychology, as an attempt of synergetics development in the subject field of psychology. In the frames of the present theory the problem of people interaction is considered. The general principles of analysis, used in psychological systems investigation, are considered. Training is understood as a form of combine psychological system, it is shown that one of the basic mechanisms of its origin and existence is sensetransference, which is realized by a teacher. The result of sensetransference is the formation of a combine psychological situation as a combine sense field, in which participants of training act.

Key words: selforganization, paradigm, synergetics, psychological system, combine psychological system, correspondence, sense, sensetransference, combine psychological situation.

The recent time interest to the problems of “humanistic psychology”, “Christian psychology”, “existential psychology”, “psychology with a human face” reflects general problems of psychological science, connected with the definition and the precision of its subject. The development lines of psychological science are expressed both in adaptive, evolutionary paradigm and in development of synergetic paradigm, connected with an idea of plurality of development variants. If the first paradigm, “woven” from many philosophic ideas, is represented by general category of reflection and is fixed in traditional definition of psychology as a science, directed to the studying of evolution of psychical reflection. This line of psychological science development, connected with the study of “psychology of psyche” [28], nowadays, according to many scientists’ opinion (Petrenko V.F. [22]), is the break of its development.

The second trend proposes the revision of psychological subject, the conversion to the problems of a man, signifying the “drift” of psychological science to “psychology of a human”. If we examine the existing publications, the general line of psychological knowledge clearly expresses the anthropocentric character of the now represented researches: problems of a human become central in the development of psychological knowledge.

This trend, to our mind, just testifies that it is time to change paradigm lines of the science. In a number of scientists’ researches it is shown that the science is developed as a change of methodological orientation, in the base of which there are changes of the psychological subject [12, 30]. The present definitions of psychology are built in general on empirical generalization of the subject that is psyche, which is only a part of the whole system – a human being [12].

At the present moment there is a situation in which the scientists, formed in the limits of one paradigm and connected with the understanding of psychology in the base of which there is a stable subject of the science, cannot research separate facts and phenomena of psychic life as before.

The transformation of oneself in science, which has become different, is necessary. This necessity is developing into the want in conversion from stable knowledge to new realities, discovered during the change of the paradigm. The readiness to accept the given changes just means the scientists’ readiness to personal transformations, change of orientation in professional search, understanding the fact of changes in science that have already happened. To our mind, it just characterizes *the presence* of the paradigm in science. The change of a scientist’s professional worldview, his professional consciousness and mentality is just displayed in a scientist’s attempt to use new methodological orientation and principles in his professional activity.

The problem of psychological knowledge development is connected with the widening of notions about its subject, with the necessity of returning “the whole man in psychology” [17], with the conversion of psychology from the science about psyche to the science about human (A.G. Asmolov [3], V.P. Zinchenko [31], V.I. Slobodchikov [28], etc.) It’s not occasionally that during the last time in a subject field of psychological science the following notions appeared: spirituality, morals, trust, senses. These notions are the characteristics of the whole human, who interacts with the world. At the same time the interaction of a human with the world, as a rule, is connected with the

interaction with other people (L.S. Vigotskiy [30], J. Piaget [23]), in this case interaction is one of the forms of such connection, thus it faces us with the necessity to study its mechanisms and peculiarities.

It's important to take into consideration that the modern level of science development supposes the using and development of new approaches to a human as a system phenomenon. It is stipulated by the general trend of science development, by the conversion to paradigms of "postnonclassical" science [2]. In science methodology a new level of a system mentality is being formed. Its subject is a research of development starting as the way of systems life (V.I. Arshinov [2], E.N. Knjazeva, S.P. Kurdjumov [13], I. Prigozhin [25], G. Haken [10], etc.). In this way the research of combine, open psychological systems self-organization, regularities of their development and function answers the actual wants of developing psychological science, which is converted on cognition of "psychological systems and their fates" [30].

A human's existence in the world is displayed in a complex phenomenology of his behavior and different psychological components. There is a big and unrevealed layer of psychological science, which demands new ideas, means for study of that how a jointed human's existence with other people is organized in the world, how communication, activity and interaction of people are regulated and determined, how community, converting into *combined system* that becomes *common* for participants, is developed and functions. The study of people interaction and psychological peculiarities of a human in it is one of the ways of solving the problem of dialogue ability of conscious. In the acts of interactions sense composition of conscious gets its revealing and exteriorization through the processes of senseformation, motiveformation, aim formation, represented in communication and activity of each participant of combined psychological system.

The logics of development of psychological science itself determines the search of answers on the questions, what are the mechanisms and psychological regularities of formation, development and selforganization of communication, activity and interaction of people. The necessity of this knowledge is supposed by life realities of the modern society, which is built on intersubjective interaction of a different level: interconfessional, interethnical, interstate, interpersonal; it sets the task before the science, directed to the search of regularities of these basis foundations of a human's life, which lie in the base of training, education and working activity of a human.

People interaction is a fundamental phenomenon that requires a deeper remake than it is researched in different subject fields of psychology. The given phenomenon touches various aspects of a human interaction with the world, making up the system in which we just can research simultaneous human discovering in himself and the world [20], and therefore in each participant. The latter means that a research of psychological mechanisms of people interactions like the whole psychological systems as an independent subject may lead to the understanding and sensibility of a man interaction with the world and other people, to the understanding of how the world comes to a human and dialogue ability of conscious is formed, how a human becomes “the subject of life” (S.L. Rubinstein) through assimilation of a cultural space, confirms his direct relation “the Universal Co-Existence” (V.I. Slobodchikov).

The regularities of psychological science development are largely being revealed, if you try to grasp their meaning in the context of displaying objective trends of the science development. At present time we can notice the antropologizing of psychological knowledge and it is displayed in that fact that in psychological cognition the accents are removed: from cognitive processes, which were recently in the center of science attention, psychology imperceptibly drifts to the side of a person problematic, conscious and a certain person behavior. First of all it is stipulated by the fact that a rather large research experience of psychic reality according to the principle of reflection and its role in explanation of activity and behavior self regulation has been collected in the science, but in spite of this fact the experience of studying them in a prism of new ideas that reflect the paradigm shift in the science is practically absent.

If formerly “psychology of psyche” prevailed in the development of the science, which was mainly based on the principles of reflection and adaptation, and adaptation was understood like the process of human interaction and environment in order to support the balance according to homeostasis, and behavior strategies were analyzed like behavior syndromes that are characterized by actualization of adaptive mechanisms of selfregulation; on the modern stage of science development the research shift to the plan of “human psychology” [28] paradigm is more typical, in which the principle of reflection is replaced by the principle of “giving rise a new reality” [29], and the research itself is built on the base of human selforganization mechanisms that is understood as open psychological system.

In the frames of a new, system paradigm the psyche is considered in its special role towards to selforganization of a human like psychological system and in its participation in production of newformations, at the expense of which selforganization is carried out.

The notion “system” in science methodology including psychological has old traditions and history. System approach, which has assimilated the notion *system*, has rather short, but very effective history. In native science an intensive development of different aspects of system and system approach took place in 70-80s years. At this period the basic methodological works of R.Akkoff, F. Emer [1], L. Bertalanf [2], N.V. Blauberg, E.G. Judin [6], A.A. Bogdanov [7], V.P. Kusmin [15], V.N. Sadovskiy [27] and of other scientists were formed and published. The notion system rather firmly occupies the place in notion device of the science and is used in methodological, theoretical researches as well as in applied researches of various sciences.

At the same time logics of scientific knowledge development has led to the discovery of new laws and to the development of the next coil of the system approach, which greatly influenced on the change of “methodological orientation, formed during the study of balanced isolated systems” [9]. The changes of system methodology are connected with the publications of basic views of representatives of synergetics as a new metascience, directed on the study of dynamics of systems starting [2, 8, 10, 13, 25 etc.].

The widespread well-shaped and popular theory of selforganization was illustrated by natural-science material (mainly from physics, chemistry, mathematics). Its theses have equally turned out to be applied to both social and psychological systems.

Further development of this conception, on the one hand, corresponds the modern course of time, when there is a change of paradigm in the science, and systems are becoming the subject of its research, it’s proved by new scientific discipline such as synergetics – a science of system development. On the other hand, it’s very important to determine the opportunities of synergetics and selforganization theory appliance in psychology, in which the question of psychological systems hasn’t practically solved. Thus there is a problem of ways of systems development in connection with “the overripening paradigm of potential number of possible ways of development” [22, p. 19] in psychology. Since synergetics is a science of systems development, the question of what to consider as systems is one of basic in psychology.

Various attempts of systems emphasizing and system approach realization were used in psychology. B.F. Lomov considered that psychological phenomena are system by their nature and the basic task of psychology is the investigation of formation and function laws of psychic systems [18]. K.K. Platonov marked out the system of psychology, taking the principle of reflection as the base [24]; A.N. Leontjev considered that activity is “the system that has a structure, its initial conversions and transformations, its development” [16, p. 141]. Such great number of point of views on systems and bringing together of many phenomena of psyche to psychological systems made difficulties in subject understanding of psychological science and in system understanding as well.

Thus there is a problem of psychological system marking out, theoretical and methodological substantiation of their existence, peculiarities and specific of their development. L.S.Vigotskiy was among the first who tried to understand and to formulate in a new way the subject of psychological science, and was able to mark out one of the most essential regularities of systems development, which the modern science has recently discovered. The question is about peculiarities of systems functional development, according to which L.S. Vigotskiy wrote: “... all the matter is not in changes only inside the functions, but in changes of connections and in infinitely variety of movement forms, arising from there, and in that, that new syntheses, new central functions, new forms of connection between them appear on the known stage of development, and we must be interested in systems and their fates” [30, p. 13].

However it is difficult to follow the history of psychological systems because psychology during the times of L.S. Vigotskiy, as well as the general methodology of science, didn't have system knowledge. According to his metaphorical expression “now psychology is the psychology before “The Capital” [30, p. 422]. In the work “About psychological systems” the scientist says about it directly: “I'm lacking of theoretical force to unite all this” [ibid., p. 131]. It was connected first of all with the fact that the development of psychological knowledge didn't reach that level, when subject of the science is represented systematically and ideas about psychological systems are formed in it. But this knowledge is wanted; in it - there is a necessity and possibility to plan the ways of science

development, and L.S. Vigotskiy writes about it in his last phrase of the article: “systems and their fates – alpha and omega of our nearest work must consist in these two words” [ibid., p. 131].

And the second essential moment is the ways of synergetic knowledge using under analysis of psychological systems. In 1927 L.S. Vigotskiy wrote about the possibility of using the system method of K. Marx in psychology: “Beforehand we can look for not the solving of the question, even not the working hypothesis (because they are created on the grounds of the given science) of Marxism teachers’, but the method of its construction. I don’t want to learn gratis, cutting out a couple of quotations, what psyche is, I want to learn how the science is built, how to come nearer to psyche investigation on the base of the whole Marx’s method” [ibid., p. 421].

We consider the given notion is actual today in using synergetics. Facts and new categories, borrowed from other fields and applied to the psychological investigations, are not necessary for development of psychology. Rephrasing of L.S. Vigotskiy, we can say that psychology needs its own synergetics, which supposes the opportunity “to reveal the essence of the present field of phenomena, laws of their changes, the qualitative and quantitative characteristics, their causality, to create categories and notions, peculiar to them” [ibid., p. 420], and it means not simple mechanical application of synergetic notions (bifurcation, dissipative structure, parameters of order and etc.) to the psychological phenomena. The use of synergetic methods supposes the elaboration of its psychological notions, which reflect the specifics of dynamics of psychological systems development. In this fact we see the opportunities of synergetics development in psychology.

However this problematic was absent for a long time in actual field of psychological science, which chose other problems and categories as top-priority tasks. And rather recently on the crest of a new wave of interest to the system researches, which have coincided with the development of paradigm shift in psychology, a new trend, which is called *the theory of psychological systems*, or *psycosynergetics*, has been appearing [12]. This trend is among the others, which have gone out of the limits of the principle of reflection. In the frames of a new paradigm a human is understood as the psychological system, including him himself and the part of the world that corresponds to him. The theory of psychological systems allows

seeing the source of human selforganization, which is understood as an open system, not in acts of reflection that have interaction (a subject with an object, a human with the world, “alive” in general with its “environment”) as their nearest cause; but in that, that lies much deeper and determines an opportunity of the interaction itself, that is its cause. In Klochko’s opinion [ibid.], this is a correspondence of interacted sides. The correspondence is understood as an objectively existing relation between an open system (complication of any level) and elements of the environment that surrounds it, without which its stable existing is impossible. In the course of human interaction with the world a new system quality arises, which doesn’t come to any reality, but bearing a new ontology – “many-sided world of a human”, and it “allows us to imagine a human like a complex selforganized psychological system, producing newformations of the pointed out “combine” nature and which uses them in its selfmoving, selfdetermination” [12, p. 12].

We’ll have to reveal the role of these newformations in the movement and selforganization of psychological systems but not “within” separate psychological system that characterizes, according to G. Haken [10], a micro level of perception, but coming from another, more complex system-mesolevel, in which the psychological system of an individual human represents only one of the constituencies of combine systems [4]. Thus, we can confirm that mesolevel is a level, which is adequate to functioning of combine psychological systems, including two persons as minimum. However, for determining the notion “*combine psychological system*”, introduced as early as by L.S. Vigotskiy, but till now not gained a concrete psychological status, it is necessary to go to the level of a new methodology, deeper than classic, that is based on the principle of reflection. In our point of view just the support on the principle of reflection has become the reason of that the notion “*combine psychological system*” didn’t take a suitable place in the categorical apparatus of the science.

We can stop on two basic principles of the theory of psychological systems, more important for the solving of common methodological tasks of psychological science development at the present moment.

1. *The first principle of interaction limiting* [11], confirming that the interaction is possible only between corresponding to each other phenomena. On the base of this principle the mechanism of combine psychological system origin is becoming clear. They appear in the result of people correspondence to each other towards the activity, the successful realization of which depends not on one person, but on many, for only the totality of people has the necessary energetic, material, informational, intellectual, etc. resource for effective realization of the activity. People correspondence is the base for their interaction inside the combine psychological system, which only in this “combine” appearance is able to interact effectively with an objective reality, making it the subject of reorganization or knowledge. Each of participants admits consciously or unconsciously in other that he is lack of.

In his individual activity a human appears as a polyfunctional system. He has to generate ideas and himself to be like an appreciator of their ethic unobjectiveness, intellectual and other work expenses, needed for its realization. He assumes functions of a doer and simultaneously of a controller for doing. He has a function of a motivational maintenance of the activity, sense safety, etc. All these functions turn out to be distributed in combine psychological systems; therefore it is the main characteristics of combine psychological systems.

2. *The second principle of causing interaction effect* [ibid.] organically emerges from the principle of interaction limiting and is one of the main in the theory of psychological systems. According to this principle it is confirmed that if an interaction has happened not only reflection is taking place, but production of a new – as the result of their interpenetration. For example, in this intertransference the “objective world” gains subjective dimensions, and a human, orienting on them, turns out to be able to distinguish that corresponds to him “here and now”.

Applying this principle to the functioning of combine psychological systems, we can consolidate that psychological newformations, originating as a result of people interaction in combine psychological systems, are just joint distributed (interpsychic) functions. L.S. Vigotskiy pointed out on the primary of interpsychic functions towards individual psychic functions, which are

formed in the result of their interiorization. This just happens in ontogenesis. Combine psychological systems realize autonomic persons, who have the formed individual psychic functions, but now they have to turn them into combine, existed “between” people and distributed between them. However, this is not that genetically primary combine psychological system “mother-child”, which was examined by L.S. Vigotskiy, but it is quality different.

In logics of the theory of psychological systems the process of psychological newformations production, such as senses, values, orientations, emotional and verbal estimates, motives, aims and etc, is understood as the mechanism of selforganization, and the formations – as its result and display. Not an object is transferred into a subject (image), but forming psychological newformations, mainly senses and values, are obliged, in their appearance, to the shift of subjective into objective, in which their co-existence goes on. It just makes up the mechanism of a multi-measured reality formation of a human – his space, in which he can act, realizing sense and value of his own actions, that is to live [4, 12, 14].

Towards combine psychological systems it can be said, that people in acts of interactions produce a special multi-measured space. In the base of this production there is their ability to transmit, deliver and receive, to personify values and senses of another. As a result value-sensible fields of each participant of combine psychological systems are transformed, and that’s why they become closer, become relatively identical.

This mechanism lies in the base of any interaction forms of social practice including training practice. In the course of training there is a becoming of combine psychological systems, in which a teacher is both one of its components and a mediator, who joins students to the world of culture. Students build actively their life world but with the help of a teacher and other grown-ups in different activities that are in the base of their life. In different activities in cooperation with grown-ups, in communication, in the course of which grown-ups through themselves and by means of themselves transmit the world of culture to students, their life world is formed. Training comes out as a joint activity of a teacher and students, in the course of which with the mediation of a teacher students build, forms their life world and the world image [3, 4, 19, 21, 26, 28]. In the

course of training true combine psychological systems are formed and realized, the psychological science will have to understand their sources and regularities.

At the same time the creation and functioning of combine psychological systems, various forms of joint activity requires to solve a number of problems, the central among them are the problems of sensetransference [4] and entering of information into the world image and the life world of another person. In other words, transmitting of knowledge in the process of teaching agrees with the question of this knowledge “introduction” in the forming world image of students and with the question of coming information influence on the forming life world of a man. An educator, communicating with students, makes a step forward to the creation of combine psychological system; one of its activity directions is the search and discovery of new, unknown, contradicted. In the limits of combine psychological systems functioning there is a personal development of each participant, connected with the process of *personalization* – the transmitting of one’s values to partners, and *personification* – the assimilation of transmitting values, and this fact comes out as the base of increase of participants’ self-realization potential [ibid.].

Thus, interaction of corresponding, identical opposites is necessary for interaction with the world (including other people). It means that the interaction is possible, when participants’ senses correlate to each other. In this case people start to interact in one sense space, where senses are partially crossed, coincide, forming a *common psychological situation* like a common part of combine sectors of the life world. Just for the forming of this *combine sense space*, or *common psychological situation*, which are the product and the base for interaction and development of joint activity, sensetransference is necessary, directed to the transmitting of its individual senses to partners. So the formation of common senses, and in this connection the realization of sensetransference function, is extremely important for communicating, interacting people.

Position of a teacher in this connection is exclusive in its saturation with sensetransference on the professional level. A teacher locks the world of culture, sociocultural experience and a developing human during the training process through himself, and he is a special mediator between the world of human values and culture and the

forming world of a child. He has a function of a mediator, at the same time being “an ideal form” for students [9, 30, 31], through the personification of which students adopt a valuable content of culture in their world image. But for supporting of this connection between a developing person and the world of culture a teacher creates a *combine sense space* with students, which has similar, common qualities of objects of the surrounding world. In these *combine sense spaces* only an interaction is possible, that is it’s supposed, that a teacher’s values, senses are grasped by students, correspond to their senses only in a common sense space, that is possible, if a teacher tries to transmit the significance of the experience, adopted by students for themselves, reaching to the active, saturate *sensetransference*.

By means of feelings and realization of actual information significance, a person transmits his sensation of its importance and value to another. The opposite process of transmitting senses and values adopting is also realized by emotional means, in estimates of significance and value of information, and verbally, too, in meanings and arguments, due to this fact other participants take up senses adequately. Thus, the knowledge, transmitted by a teacher, does not simply join to the present students’ knowledge, but promotes their active formation, selection and construction. In the given case there is a kind of two flows that must correspond to each other: the first flow, going from a student, supposes the selection of information, adequate to his senses, meanings and values. The second flow – from a teacher and other participants of a training process – is extremely important in the plan of a human and his education formation, because a new knowledge for students can be brought to them by means of mediators, educators, who transmit information transmitting only its value, sense and meaning for themselves. Thus, a teacher is a principal channel of *sensetransference*, through his value-sensible peculiarities of conscious and psychological situations a developing person joins to the world of culture.

In other words, to transmit the importance of the matter, to initiate students’ senses and an interest to knowledge are possible only if a teacher himself has an interest, feels the significance of the matter and realizes the function of *sensetransference* through his feelings and senses transmission. We consider that it is one of the principal ways of getting knowledge, culture by students to the field of clear conscious,

and it is possible when the world of culture in a person widens, changing a person, educating him.

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