CONTEXTUAL APPROACH IN PSYCHOLOGY

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Abstract

The article contains a brief review of the concept «context» which is becoming one of key concepts of modern theoretical and empirical psychology. On the basis of the analysis of the scientific literature the authors allocate two complementary understandings of the context – structural (a fragment of the text as a semantic system) and functional (generation of sense mental mechanism). The authors suggest understanding mentality as a recursive-contextual phenomenon in which each fragment of its maintenance exists in the context of previous fragments and represents the context for fragments of the subsequent. Such understanding can become a basis of the contextual approach in psychology.

Keywords: Context, contextualism, contextual approach, structure and functional approach, recursion

It is known that scientific and philosophical cognition is realized through the instrumentality of categorial apparatus, containing the most general notions, which can’t be reduced to other notions or deduced from them. Enrichment of the science with new methodological categories reflects the process of reconsideration of the subject of investigation, shift in sense connected with it, development of adequate research tools. In the second half of 20th century the notion “context” spread beyond the realm of linguistics and became a term of humanities. It happened due to linguistical philosophy, the philosophical concept of contextualism, semiotics and methodology of post-modernism, which treated the world as a text. Correspondingly this notion can claim the status of a new psychological category, which was introduced by one of the authors of this article at the beginning of 1980-ies (Psikhologiya i pedagogika … , 1981; 20-21). He formulated the definition of the psychological context and understood it as a system of interior and exterior factors and conditions of human behavior and activity, which influence the peculiarities of perception, understanding and transformation of some concrete situation and which determine the meaning and sense of the situation as a whole and the components it comprises. This enabled the
This provided a sound basis for the formation of a scientific school (A.A. Verbitsky, N.A. Bakshaeva, M.D. Iljasova, V.G. Kalashnikov, O.G. Larionova, I.N. Russkasova, V.F. Tenischeva, E.G. Trunova, N.P. Chomyakova, O.I. Scherbakova, N.V. Zhukova, and many others) which laid the foundation for contextual approach in education. A special emphasis should be put on the idea that Russian scholars were pioneers in contextual education: long ago in 1981 A.A. Verbitsky introduced the theory of contextual education and described its considerable potential for the theory and praxis of education (Psikhologiya i pedagogika …, 1981).

Approximately at the same time some works on contextual education appeared in the USA. But American investigators-contextualists found it unnecessary to consider any general regularities and specific contextual methods of teaching. They believed that ideas acquire certain sense for learners only in an individualized context of behavior. In her monograph E. Jonhson, summarizing all the findings in the field of contextual education, writes that the term “contextual teaching and learning” came into extensive use in the USA only in 1990 (Johnson, 2002).

But it should be noted that though contextual education abroad and in Russia share some basic ideas, foreign scholars haven’t succeeded in creation of a consistent theory of contextual education comparable with Russian contextual approach on scientific and methodological grounds. Moreover currently contextual approach has crossed the boundaries of pedagogical psychology and functions as a general psychology methodological project. It is a natural result of evolution of the term “context” in humanities in the 20th century.

In linguistics scientific interest to the term “context” can be traced to the K. Bühler’s works. Being a linguist and a psychologist he supposed that concrete semantic contents of a word and a sentence are determined not only by their linguistic environment, but also by the surrounding objects and situations, the peculiarities of people who send and receive the message (Arnold, 1991; 46-49). The fact that it was a psychologist who initiated studying the context in linguistics and was able to foresee its possible interpretations looks rather prognosticating. Later this trend in science resulted in generation of such concepts as Speech Act Theory, communicative linguistics, discourse analysis, socio- and ethno linguistics and others, which frequently apply the term “context”. The results of these studies unable us to state that in linguistics there exists some pseudo-spatial structural model of the context, which has not only linear, the so-called “horizontal” (“left-hand \ right-hand” fragments of the text), but also “vertical” (extralinguistic, situational-communicative) dimensions.
The context also arrested attention of many Russian linguists (N.D. Arutjunova, V.V. Vinigradov, E.V. Paducheva, O.G. Revzina, Z.I. Chovanskaya, N.A. Enquist), but it was G.V. Kolshanskiy, who devoted one of his works to contextual semantics. He wrote that the context as a semantic phenomenon involves thinking aimed at identifying the exact meanings of lexical units, meanings which are semantically dependent on the context – the text itself as well as the communicative situation (Kolshansky, 2007; 134-135). So, gradually the “naturalistic”, structural understanding of the context as a fragment of some material or semiotic system (text) was transformed into the functional approach, which treats the context as all the conditions of communication (states and processes) taken together.

A similar evolutionary process occurred in culturology. The founder of the London linguistic circle J Firth, while developing American anthropologist B. Malinowski’s ideas, introduced the term “the context of the situation” and worked out contextual theory of meaning (“contextualism”), revealing its dependence on culture, traditions and concrete conditions of the communication. Such understanding of the context has much in common with linguistic and philosophical interpretations of this phenomenon.

American philosopher John Dewey’s demonstrated that there is no direct correspondence between theories and real life, the way objects are perceived is determined by the context they are given in (Lebedev, 2004). This idea gave birth to a new philosophy – “contextualism” (P. Unger, J. Lewis, P.J. Cohen and others). In these and other similar concepts, oriented to pragmatism (D. Davidson, W. Quine, G. von Wright, T. Hogan and others), the analysis of an utterance truth conditions is done by synthesizing the utterance context (time and location), characteristics of the speaker and the contents of the utterance. Hans Reichenbach introduced the contextual approach into epistemology and methodology of science; he coined the term “discovery context” to designate a dynamic situation of new scientific law discovery and theory formation. He also suggested the term “validation context” to describe the process of proving and verification of knowledge (Lebedev, 2004; 108-109).

In Russian philosophy the domain of individual consciousness is treated by N.A. Nikiforov as a unique semantic context, in which an individual includes natural and cultural phenomena and understands and interprets them this way (Nikiforov, 1991). Not so long ago I.T. Kasavin suggested developing contextualism as a methodological programme of scientific investigation. The author understands the context in its broad meaning as conditions of cultural phenomenon interpretation and suggests that certain cognitive problems can be solved on this basis (Kasavin, 2008). Thereby I.T. Kasavin accentuates functional-semantic nature of the context.
Along with the interpretations mentioned above, there is also a twofold understanding of the context in philosophy: structural and procedural. According to K. Wilber philosophical contextualism means representing of the world as an infinite hierarchy of systems, where upper systemic levels exist as contexts for lower levels (Wilber, 2004). On the other hand, S.C. Pepper regarded a historical event implying a current operation as the context. E.K. Morris also asserts that contextualism uses this term in the form “context-as-history”, but not “context-as-location” (From: (Kasavin, 2008; 185-186)).

In psychology the notion context initially appeared in the studies of the text and the speech. It is highly probable that the term “psychological context” entered psychological discourse due to Russian scholars. We guess that V.N. Voloshinov was the first who mentioned it in his work in 1929: “… inner sign must become free from its psychological context absorption …” (Voloshinov, 1929; 51). Here the author describes a sign being merged into a living matter of the human psyche, which is understood as semantic context, which enriches the sign by linking it with different mental content.

L.S. Vygotsky, having used F. Polan’s concept, formulated “Meaning Dynamics Law”, which describes sense generation as a process of enriching the word with the meaning, which it absorbs from the whole context (Vygotsky, 1999; 322-323). S.L. Rubinstein distinguished between contextual and situational speech: any meaningful speech (any abstract content within the limits of the present situation) is coherent, which means here contextual. Situational speech is relied upon a current situation, using the latter as the context (Rubinstein, 1989a; 469). Moreover, the psyche itself is defined by S.L. Rubinstein with the help of the term “context”, since he considers human activity to serve the context for the mental content (Rubinstein, 1989b; 33). Correspondingly, the context interpreted this way is not merely “surroundings” of some object (be it a material object or some mental content), the context is a system of activity-related links of the object, with the help of which the person “takes out” versatile semantic content of the object (S.L. Rubinstein, V.N. Myasishchev).

But the cognitive approach to the context as a condition of meaning formation was more profoundly developed. In particular, S.M. Morosov revealed the “meaning-generative” function of the psychological context. He considered the meaning as a fragment of sense invariable towards psychological meaning-generating contexts, under which mental content is understood. Later carrying out a special procedure of analysis D.A. Leontief also came to the conclusion that the sense of a phenomenon is determined by a wider context, than the meaning, and that the both phenomena have contextual nature (Leontyev, 1999).
The significance of the context is also revealed in cognitive psychology studies (A. Anderson, R. Atkinson, J. Bruner, R. Klatski, P. Lindsey, D. Normann, U. Neisser, E.M. Hofmann and others). In particular in studies of priming – a memory effect in which exposure to a stimulus influences to a response to a later stimulus (D.E. Meyer, R.W. Schvaneveldt and others), in the concept of field independence – dependence (H.A. Witkin, J. Palmer, L. Palmer and others), and in the concept of contextual identification (E.E. Bechtel, A.E. Bechtel).

In particular in E.E. Bechtel and A.E. Behtel’s concept the context is considered as a memory-cognitive thesaurus of an individual, which provides information for psychological activity by systematizing cognitive material. The authors introduced a special term – “cognitive pill”, which is understood as a contextual structure, enabling a certain psychic construct to interact with any other constructs (Bechtel & Bechtel, 2005; 190). It should be emphasized that this work reveals not only structural but also functional, processual nature of the psychological context. “The context is a system and at the same time systematization of the cognitive material” (ibid; 191) (or any mental content; for example, it is known that there exists a position effect of positive emotion overestimation after an individual has felt fear).

Scholars in psychology and social anthropology, following their predecessors in the field of linguistics and philosophy, formulated their own approach also name it “contextualism”. This approach was aimed at studying ontogenetic development of an individual in a broad socio-cultural context (R.M. Lerner, D. Matsumoto, G.V. Caprara, D. Servon, D. Ford and others), which in its turn enables scholars (M.D. Cole, J.V. Wertsch and others) to look at L.S. Vygotsky’s cultural-historical theory at a different light. A special emphasis on social-cultural context doesn’t mean that an individual’s psyche is entirely determined by it, because there is another essential mechanism of mental development which is called “decontextualization”. V.P. Zinchenko interprets decontextualization as “a historical and ontogenetic process of generalization of meanings and skills (semiotic acts), the process of their transformation into more abstract and independent from the concrete conditions actions” (Sovremenny psikhologichesky slovar, 2006; 92). Due to this process some information may lose touch with the context it was formed in and be taken by an individual into any new contexts.

So, the review presented above shows that the notion “context” has proved its efficiency in a wide range of research areas, including psychology, though in most cases the term was used metaphorically or it performed a function of a supportive tool when scientists tried to solve a concrete scientific problem. But it has never performed the explanatory function or been regarded as the subject of research.
On the basis of the carried out analysis we come to the conclusion that the context regarded from psychological point of view is not a structural fragment of a text, but primarily it is a *psychic mechanism*, generating sense and meaning. This mechanism (the so-called psyche “functional organ” according to A.A. Uhtomsky) is responsible for interaction of psychical functions and processes necessary to solve semiotic problems – generating sense by correlating different mental content (not only images or concepts, but also values, states, etc.). In this case the context as a psychic phenomenon appears as a function, the way of structuring mental content presented chaotically by applying a certain “coordinate frame”. With the help of this frame the meaning and sense of each of the psychic fragments can be identified and the regularities of the fragment interrelations can be discovered. That is why text fragments, communication conditions, social-cultural background knowledge, etc. should be treated not as varieties of context, but rather as the forms of its objectification, revealing various aspects of this psychic semiotic process.

So, in psychology the context is primarily a cognitive mechanism of a human psyche. But it doesn’t rule out a possibility of its “pseudomaterialization” in a structural model for the purpose of comparing various contexts on the basis of different parameters. Let’s consider both structural and processual aspects of the psychological context in a detailed way.

*The structural aspect of psychological context.* Structurally the context is traditionally regarded as a spatial phenomenon (a material text, a situation of communication), but psychologically – as a pseudo-spatial structure (similar to K. Levin’s topological models). Context topology may have two variants of representation: 1) two-dimensional subspace (the coordinates are its size and time); 2) n-dimensional space, where the number of coordinates “n” is given by the number of contexts included into the model. It should be noted that E.E. Bechtel, A.E. Bechtel consider the context to be a multidimensional structure, its dimensions are given by the number of variables used to build it (Bechtel & Bechtel, 2005). Building such a model can be a subject of a special study in the future.

And in this article we are going to analyze the simplest, two-dimensional model of the psychological contexts, which we accept as a basic one. The central object of this model is a random fragment of the psyche. But it should be mentioned that “what is the context” and “what is the central object” depend solely on point of sight chosen by the subject. The volume of the context may be represented by a certain number of coordinate with the central object psychic objects (images, concepts, etc.), forming narrow or broad context, or it may indicate a certain logical level of information perception (according to G. Bateson).
The vertical axis reflects the most significant for psychology division of the context into exterior (object context and social context) and interior (subjective context) context. All these things taken together represent the synchronic aspect of psychological context structural segmentation. The diachronical aspect represented by an arrow, indicates the “stream of psyche”. Here we can single out the preceding context (that precedes the central object) and the successive context (that succeeds the central object). So, the structural model of the psychological context presents some “space” (in this particular case two-dimensional Cartesian space).

Consequently, we come to understanding that from cognitivists’ prospective the psychological context is a multidimensional pseudospatial structure, comprising all the systems of relations of the central object with other objects. As a result the subject has an opportunity to process the information in a number of ways, placing it into various contextual systems. Correspondingly, it can be modeled with the help of a certain matrix of contexts adequate for this particular object as a subject for study. Superposition of the contexts enables the researchers to get a detailed description of the phenomenon under study (the central object), which reflects the systemacy principle in psychological research.

Functional aspect of the psychological context. Procedural, functional understanding of the context means that its interpretation as a relations between the information fragments is a primary one (in psychology the context is a specific mechanism of establishing such relations), while the fragment which is conventionally called the context functions only as an indicator of contextual relations.

Therefore, here we should speak about relational understanding of the context, that is the context functioning as a special mechanism of linking mental content, acting as objects of the same or different levels. Fragments of the perceived information can serve as example of one-level objects, the object and the class it belongs to represent the objects from different levels. All this guarantees a conscious perception of this or that object or phenomenon.

So, we believe that in psychology a certain shift of meaning should take place: naturalistic-structural understanding of the context should be replaced by the understanding the context as a process, a sort of psychic mechanism of semantization.

Without context information can’t be interpreted and understood, but what is more information itself can’t exist without the context, as it exists phenomenologically for the subject in the form of psychic processes and states. In V.I. Stepanskey’s psychoinformation concept the notion “information” is understood as reflection of some impact in the object-recipient, which implies comparison of the previous and following states of
the object (Stepansky, 2006), and, consequently, any kind of information appears only in the context of the preceding psychic state.

According to S.L. Rubinstein (Rubinstein, 2003; 357), V.P. Zinchenko (Zinchenko, 1996; 14) and some other psychologists human activity in its relation to objective reality has a recursive character. Recursive elements are those which are arranged in a self-similar way according to a certain rule (Mikisha, Orlov, 1989; 117-118).

Correspondingly, each element of such a sequence can be perceived and understood only in the context of the logic according to which the previous elements were arranged. A recursive structure represents a paradoxical phenomenon, it unfolds from itself and being a member if itself at the same time (cf: repetition without repetition in N.A. Bernstein’s concept and famous B. Russell's logical paradox). This dialectical recursiveness makes up the essential basis for human existence in the real world, which means for his psyche as well.

As we see, recursive understanding of the psyche helps to overcome the opposition between the organism / psyche and the environment – the tendency which can be traced to the first Russian programme on psycology by I.M. Sechenov. So, any dynamic system can be adequately understood in the context of its past states, that is in the context of “itself in the past”, it’s especially true for the human psyche, which is characterized by conscious “timeconnecting” memory.

This explains the understanding of recursive context nature, vividly demonstrated, for example, in the unfolding of the text (interpreted in postmodernism methodology as discourse or the process of writing). For an individual being a subject and a personality a significant role is played not only the context of the past, but the context of the future as well. The latter can be presented as the process of anticipation or foresight (imagination) and also as the process of sense generation about the past through the future.

Teleological orientation of the human psyche, its determination by the future (“project”), but not the past became a basis for the understanding of human’s personality and subjectness in existential psychology (L. Binswanger, M. Boss, A.H. Maslow, C.R. Rogers, V.E. Frankl, I.D. Yalom, K.T. Jaspers and others).

Interaction of the contexts is another way of describing contextual psychic mechanisms. It exists in two variants. 1. Superposition of the contexts – the contexts overlap or even interpenetrate, but at the same time remain unchanged. The contexts pierce each other “without noticing it”, this process is similar to that one in physics, when a solid body does not present an obstacle for the field. So, various explanatory models which contradict each other may coexist, without “disturbing” each other.
2. Interaction of the contexts is such a combinations of the contexts which leads to their mutual transformation, for example as a result of an attempt to join two models, produced in different contexts (and correspondently two different viewpoints); this operation leads to knowledge transformation, which can be described as the broadening of meaning, that is creation of a new “cognitive horizon” as a result of merging two formerly independent conceptual fields.

It is obvious that all these operations are mental, they take place not in the physical but in psychic reality. That is why the interaction of the contexts mentioned doesn’t provoke any changes in physical reality. Topological model of the interacting context can be presented differently in different projections [6; 193-196]:

1. Concentric inclusions of the contexts as the systems inserted into each other, when a system of a higher systemic logical level becomes the context for its subsystems. Psychologically it corresponds to determination of one mental content by another.

2. Superposition of the contexts, that is their overlapping without interaction; correlation of the contexts is determined by a single universal for them all central object (the “nuclear” of the context system). Psychologically it is correlated with the complex of interdependable points of view about the object, that a subject or a group has.

3. The space of the contexts, determined by a single nuclear (object) and different contexts of its perception, which don’t interact. Semantically-psychologically it means that there exist several ways of interpretation of the information and the subject can choose the way to his / her liking.

So, on the basis of the material presented above we can come to the conclusion, that human psyche has a recursive, and consequently contextual character: each psychic phenomenon exits only in the context of other phenomena in diachronic as well as synchronic aspects, and each subsequent state of the psyche taken as a whole is determined by this contexts.

At the same time psychological context is understood as a twofold structural-functional phenomenon, the so-called functional psychic organ. For the subject it is represented in the form of “projections” of this mechanism on some fragments of the psyche, which are perceived by the subject as “the context” for some concrete mental content.

As it was mentioned, the methodological approach, aimed at using the context as a key notion for modeling and explaining various psychic phenomena and structures is called contextual approach.

It is a method of modeling psyche and any other psychic phenomenon in the form of system of the contexts for this or that phenomenon under consideration. To be in line with general psychology (or even general scientific) methodological basis of studies the context approach
should be supported by a well thought-out and consistent system of principles and typology of the contexts, specific context methods of research. Such kind of work is being carried out, which is reflected in a number of publications (Verbitsky, Kalashnikov, 2009), (Verbitsky, Kalashnikov, 2010), (Dubovitskaya, 2004), (Kalashnikov, 2005).

In particular T.D. Dubovitskaya suggested the following principle of using the context as a tool of psychological research and organization of educational activity: 1) the principle of context broadening – consideration of a psychic phenomenon in the frame of contexts included in each other, which generate multidimensional perception of the phenomenon; 2) the principle of interdependence of the contexts – any phenomenon under consideration is multifaceted, that make it impossible to analyze it in one context only, all its possible contexts appear to be interconnected; 3) the principle of variability of the context – the context is a pattern (gestalt), which structure is changed as soon the sighting point is changed, that is why researchers themselves single out different context of the psyche study (Dubovitskaya, 2004; 99-101).

Some more principles can be added to this list:

4) the principle of context determination – the necessity of psychic phenomenon analysis in systematically considered context of its existence (in psyche) and in studying (in different concepts);

5) the principle of the systemacity – the context is a system with all the attributes typical of it – inclusion into context-supersystem, singling out contexts-subsystems, interconnection between its parts, integrity and relative autonomy, emergence, structural and functional modeling, etc.;

6) the principle of complementarity of the contexts or the principle of heuristic contextuality (according to S.A. Golubev (Golubev, 2002)) – maximally full understanding of a phenomenon is possible only when the information received in different contexts is combined; contradictory concepts are nothing but different projections of one and the same object in different contexts (cf: dimensional ontology according to V.E. Frankl (Frankl, 1990; 48-50)).

The understanding of the context as a psychic recursive mechanism enables the researchers to relate consistently a great deal of scientific data, accumulated by psychological science. The notion context and the suggested principles can serve as a basis for the context approach in humanitarian and cognitive studies. Context approach is aimed at systematization of the discovered data about the nature and regularities of the psychic. A reference to the context of consideration of this or that phenomena guarantees profound reflexive analysis of the data and conclusions obtained by the researcher.
We are deeply convinced that the contextual approach in psychology enables us to make a real breakthrough in conditions of a current crisis in psychological and humanitarian sciences. As this approach gives an opportunity for reconsideration and non-contradictory synthesis of various concepts and empirical data, which will deepen and broaden scientific understanding of the psyche.

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