

The professional world and professional activity of a medical university lecturer

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Questions connected to the correlation of such notions as “image of the world” (A. N. Leontiev) and “invariant image of the world” (A. A. Leontiev) are considered. The proposition that professional activity is one of the bases for distinguishing invariant images of the world is substantiated. Based on the analysis of the professional activity of lecturers in medical institute clinical faculties, the notion “professional view of the world,” which reflects professional activity in an invariant image of the world, is introduced. The necessity for specifying the notion “professional view of the world” and introducing the notion “professional world,” describing professional measurement of the living space of medical institute lecturers, is also shown; the structure-forming components of this notion are singled out. It is also shown that the systems of relations by which the professional world is determined are by nature meaning relations (D. A. Leontiev).

Keywords: image of the world, invariant image of the world, professional view of the world, professional world, meaning relations

The psychology of professions is traditionally one of the basic research objects of psychologists: professionograms and classifications of professions are developed, personality features typical of this or that profession are analyzed (see, for example, Artemeva, 1999; Borisova, 1981; Klimov, 1974, 1995; Platonov, 1977; Rostunov, 1982; and others). The extensive interest of researchers in professional activity has many causes. One of the basic motives is the search for the psychological characteristics that promote success in a given profession.

To reveal how a lecturer is perceived by medical students and which of his/her personality characteristics and professional qualities are significant for them, I developed a questionnaire consisting of 122 questions (Khanina, 1986). Processing of the questionnaires revealed 17 scales. Seven scales are the parameters for the perception of a lecturer; ten scales are the criteria for students' estimation of the lecturer. The following scales concern the parameters of perception: (1) general characteristics of the lecturer; (2) preliminary information about the lecturer;

(3) orientation of the students to the lecturer's scientific activity; (4) the lecturer as physician; (5) the lecturer's mood; (6) the lecturer's attitude toward the students; (7) the students' impression of the lecturer.

The estimation criteria are found in the following scales: (1) the influence of the professional activity of the lecturer, as a physician, on the future professional activity of the students; (2) the influence of the students' mood on the lecturer; (3) informal communication between the lecturer and the students; (4) the style of lecturing; (5) the students' interest in the lectures; (6) the students' reaction to negative evaluation of their activity by the lecturer; (7) the students' trust in the lecturer; (8) the students' behavior during lectures; (9) the students' reactions to the lecturer's mistakes; (10) the students' activity during lectures.

In Bazina's (2004) dissertation on "the parameters of perception and the criteria for the estimation of another person," written under my direction, it was established that when the image of the lecturer is positive, the parameters of perception and the criteria for estimation are conditions for the development of the students' future professional activity. When the perception of the lecturer by the students is negative, the criteria of estimation reveal basically the interpersonal relations between the lecturer and the students. It was also established that the perception parameters of the lecturer by the students are stable; the content of the perception parameters is determined by the type of interpersonal relations between them. In particular, when the perception of the lecturer is negative, the perception parameters are the conditions strengthening the development of this image.

The question of why students can have certain interpersonal relations with lecturers arises objectively. Besides purely irrational components, which are frequently difficult to uncover, rational ones, which can be distinguished and described, apparently also exist. To single out these components it is first necessary to define and describe the features of the professional activity of a medical university lecturer.

The problem we are speaking about is significantly wider than describing these features: it is finding the correlation between the categories "image of the world" and "professional activity." The issue of the image of the world was raised for the first time by A.N. Leontiev. In the work "Image of the World," he writes: "The problem of perception should be raised and developed as a problem of the psychology of the image of the world" (1983, p. 252). He emphasizes that the object world of a person not only is four-dimensional — three-dimensional Cartesian space and time — but also is revealed to him/her through a semantic field, a system of meanings. The major characteristics of the image of the world are, first, that the world is amodal in its remoteness from the subject and, second, "the image of the world expresses also that the object is not formed from 'sides'; it acts for us as *single and continuous; discontinuity is just its moment*. The phenomenon of the 'nucleus' of the subject occurs. This phenomenon expresses exactly the *objectivity* of perception. The perception processes submit to this nucleus" (p. 260). "The psychology of image (of perception) is concrete scientific knowledge of how during the activity individuals build an image of the world — the world, in which they live, act, which they change themselves and partially create; it is also knowledge of

how the image of the world functions, mediating their activity in the objectively real world” (p. 254).

Three questions are implicit in this quotation. First, what determines the multidimensionality of the image of the world? Second, what does the activity introduce into the image of the world? Third, how is this activity influenced by other participants in this activity? Concerning the multidimensionality of the image of the world, Leontiev treats it as a derivative of the multidimensionality of the “fifth quasidimension” — the system of meanings. I agree with him but point out that the multidimensionality of the image of the world is determined to a large extent also by the activity. Because it is possible to distinguish the kinds of activity — for example, game, educational, educational-professional, professional — each of them has not only its specificity but also variability within the framework of this specificity. This variability is shown especially clearly in the professional activity of a physician. For example, a therapist can be a cardiologist, endocrinologist, pulmonologist, and so forth. However their objects of activity are essentially different. Therefore, the activity that is carried out by the subject determines the multidimensionality of the image of the world as well.

Concerning the second question, what the activity introduces (besides multidimensionality) into the image of the world, one can say the following. Because the subject can simultaneously be included in various kinds of activity, each of them makes a certain contribution to the development of the subject’s image of the world. In addition, the unit weight of each of these “contributions” is different (Khanina, 2009). “We build really not the World, but the Image, actively ‘draw’ it ... from the objective reality. ... The main thing is ... what results from this process. ... The Image is more adequate or less adequate, more complete or less complete, ... sometimes even false” (Leontiev, 1983, p. 255). The categorical set of the image of the world, specified by the antonyms “complete-incomplete,” “true-false,” forms during the activity (during its various kinds) and through the activity.

Concerning the third question, how the activity carried out by the subject is influenced by other participants in this activity, Serkin (2005), researching the interrelationship of the image of the world and the way of life, emphasizes that “the way of life is the notion introduced to describe the systems of activities (as an integrative characteristic of the activity) that people actually carry out as the subjects of individual activity or that they are “included” in ... during a certain life period, stage, or cycle. The structure of the way of life is determined both by the images of the world and by the plans of real interactions and, in turn, determines the development of the images of the world” (p. 113). The way of life and professional activity are frequently mixed for physicians. Real instances of diagnosing people in the street, in a swimming pool, and so forth, can serve as confirmations of a given fact. There is a concept known as “the syndrome of the third academic year” in medical institutes. During this time, medical students begin to study clinical disciplines and they start thinking that they themselves have the symptoms of studied diseases and syndromes. Veresaev also wrote very clearly about this syndrome: when he started studying clinical disciplines the world began to seem

a huge hospital to him, and it seemed that there were almost no healthy people in it (Veresaev, 1901/1961).

Thus, medical students as well as physicians begin to interpret their environment through the prism of the profession that is reflected in their images of the world. The question arises whether there is any invariance and invariants in these images of the world. The *Dictionary of the Russian Language* defines invariance as permanence, independence, and invariant as permanent (Ozhegov, 1952).

A. A. Leontiev was the first to speak about invariant images of the world (Leontiev, 1993, 2001). Analyzing the concepts of the image of the world by various researchers (Artemeva, 1999; A. N. Leontiev, 1983; Petukhov, 1984; Smirnov, 1985; and others), Leontiev writes, “It is a representation of the objective world in the psyche of a person, mediated by object meanings and relevant cognitive schemes and can be consciously reflected” (2001, p. 115). Then he discusses, how the image of the world functions. We can trace his logic (2001, p. 115):

In our image of the world, or rather in its situational fragment that we at the moment deal with, a separate object is highlighted all the time, and then consciousness switches over to another—and so on endlessly. But this continuous switching of the consciousness from one object to another presupposes simultaneous transition of the object (its signified image) from one level of awareness to another: that which is an object of actual consciousness and that which is at the level of conscious control coexist in my consciousness. . . . But the image of the world cannot be included in perception, but [is] completely reflective. . . . Such an image of the world can be situational, that is fragmentary—for example, . . . in the case of memory or imagination . . . but at the same time with unstable, individual characteristics. . . . Individual meaningful formations have also some cultural “core,” common for the whole social group or community, which is fixed right in the notion of meaning as opposed to personal meaning. In other words, along with individual variants one can speak about a system of invariant “images of the world,” or, more exactly, the abstract models describing the common features in the view of the world of various people.

Leontiev (2001) considers the features of national culture and of national psychology as invariant images of the world because the view of the world by one people cannot be transferred to the language of the culture of another people by simple “recoding.” At the same time he emphasizes that there can be an infinite number of invariant images of the world.

We can suppose that professional activity, at least some kinds of it, can be included in the “abstract models describing the common features in the view of the world of various people” — that is, in the invariant image of the world that Leontiev speaks about. Therefore, I won’t introduce a special category of the invariant image of the world.

What, indeed, is professional activity? Professional activity, being the basic form of a subject’s activity, has a special place among the diverse kinds of activity of a person. The participation of people in an activity that has essential common characteristics should result in the development of similar personality traits caused by the similarity of professional requirements in regard to the psychological and

psychophysiological features of the person (Borisova, 1981, pp. 159–177). However, any profession as an occupation, any specialty as a kind of activity, makes certain requirements on the personality of a person, leaves its mark on the whole way of life of the worker and on the whole of his/her appearance. Therefore, “objects and phenomena that are perceived by a person in various kinds of work and that he influences, in turn influence him, forming in this person not only professional concepts but also a certain professional way of thinking” (Platonov, 1977, p. 96). As already mentioned, physicians and medical students start to perceive the world through the prism of the profession. I carried out an interesting empirical research with medical students (Khanina, 1986). A psychologist who did not suffer from any endocrinological diseases was presented to the fifth-year students of I. M. Sechenov First Moscow State Medical University under the guise of a patient. Work with patients is a usual training practice in medical institutes. The students diagnosed this pseudo-patient as having all the diseases mentioned in the course on endocrinology that they had just taken. Only after the lecturer’s intervention did they learn that this pseudo-patient had no endocrinological diseases. One of the students claimed that they had got used to the fact that only ill people came to them during practical studies, and they had studied the norm only through textbooks. For students to take healthy people for patients (and to find diseases in themselves that they don’t have) is a perception of the world through the prism of the profession.

In order to answer the question about what professional activity is for the subject, we should consider various classifications of professions from the viewpoint of the general psychological positions. Eight groups were distinguished by Roe (as cited in Borisova, 1981, pp. 159–177) on the basis of their requiring similar kinds of activity:

- (1) service (consumer-service workers, waiters, etc.)
- (2) business contacts (businessmen, agents of various companies, etc.)
- (3) organizers (managers etc.)
- (4) professions demanding outdoor work (forest wardens, agriculture workers, etc.)
- (5) technical professions
- (6) science
- (7) general culture professions
- (8) artistic professions

Then the author distinguishes the interests peculiar to each of the groups and the specific personality traits typical for each group. It is not clear which group of professions physicians and lecturers belong to.

Klimov (1995) approached the classification of professions from an essentially different position: specialists’ ways of interacting with the objects of the world are the basis of the classification. The author divides all the known professions into five groups, which he calls *types*.

First type: bionomic, conditionally designated as the “person–nature” type

Second type: technonomic, conditionally designated as the “person-machinery” type

Third type: socionomic, conditionally designated as the “person-person” type

Fourth type: signonomic, conditionally designated as the “person-sign system” type

Fifth type: artonomic, conditionally designated as the “person-image” type
(Klimov, 1974)

Besides very precise distinguishing of interactions with the objects of the world, the author provides a description of the features and personality characteristics for each type of profession.

Thus, one can see clearly an attempt by the researchers to reveal the parts of professional activity determined by the profession and those determined by the personality. Actually these classifications are a professional component of perception of the world. When these classifications and others were developed, the category of the image of the world had not been yet introduced into psychological science by A. N. Leontiev.

According to Klimov’s classification, lecturer and physician are “person-person” type of professions. Describing this type, Klimov emphasizes that their peculiarity is that they seem to have a dual object. On the one hand, the object is interaction among people. On the other hand, professions of this type demand from a person special knowledge, abilities, skills in some production sphere, science, engineering, and so forth. Therefore, dual preparation — “human nature studies” and also some “special” studies (Klimov, 1974) — is required. From these positions medical university lecturers should have dual preparation consisting of skill in interacting with students and medical skill. However, the dual character of the work is typical of medical university lecturers in other ways. It is possible to divide all the specialty disciplines into two blocks: clinical and fundamental (basic). In turn, clinical disciplines are subdivided into the therapeutic and surgical type. It is also typical that lecturers in the fundamental disciplines are generally graduates of medical institutes. Therefore, almost all lecturers in medical institutes have certain behavioral and cognitive characteristics necessary for the professional activity of a physician. The dual character of the work is influenced by the discipline that is being taught as well. However, lecturers in clinical faculties have one more feature: they not only teach a concrete academic discipline but are also real physicians. Lecturers in medical institutes have to some extent a unified approach to the pedagogical process, one of the interactions with the objects of the world that Klimov speaks about, in this case with students. This approach becomes apparent in the fact that certain rules of lecturing on clinical and fundamental subjects are strictly observed in medical institutes.

Interaction with other objects of the world, as patients are referred to, essentially differs for surgeons and therapists. So, surgeons not only operate on patients but also manage them during the whole postoperative period. In addition, surgeons

trace and estimate the results of the operative intervention. Thus, for clinical lecturers, it is possible to speak about the triple character of their work: interaction with students, teaching, and professional activity as physicians. All these roles should be reflected in their invariant image of the world. Arguments mentioned above give us the basis to suppose that it is possible to attribute differences in the invariant image of the world, which lecturers have, to a rational component, which can influence interpersonal relations in the dyad lecturer-student.

For physicians, the invariant image of the world, which professional activity reflects in, will often be supranational. A physician can know neither the national traditions nor the language of a colleague, but, having met at a congress or a conference and using only medical terminology, they can understand each other. Not by chance, therefore, medicine has its own “Esperanto” language: Greco-Latin terminology. There will be invariants in this invariant image of the world—namely the records of the management of patients with a specific disease. The changes in these invariants will depend on many circumstances, in particular on the further development of a subject domain of medicine.

It is not by chance that after A. N. Leontiev introduced the concept “image of the world,” researchers engaged in the problem of professions (from general psychological positions and from positions of labor psychology) began to search for the categories that to some extent reflect professional activity in the image of the world.

The problem of the image of the world in different types of professions has been raised in Klimov’s researches since 1995. The author emphasizes that “representations by the professional of the environment and himself constitute an area of the existence of the major conditions of regulation and self-regulation of his activity” (Klimov, 1995, p. 4). Speaking about the image of the world in different professions, Klimov writes (p. 15):

Profession, work in each case represents a complex world, in particular, of invisible objects of experiences, knowledge of certain professional integrities — “gestalts.” ... For the beginner the appropriate system organizations of characters of objects seem not to exist — he does not see them. Here we have mentioned only “leavings” of those special inner worlds that are open to professionals and are closed to the uninitiated. We should say that at times a detached onlooker just doesn’t have words-names for all the things that exist for professionals; in other words, a detached onlooker frequently sees no more than “vacuousness” where rich and various worlds of impressions, materials for reflection, and practical action exist for the professional.

The construct “the world of the profession,” introduced by Artemèva (1999), is a reflection of professional activity in the image of the world. “The world of the profession is a system of accents of the reflection of the world typical of the given profession: the primary choice of the substitutional reality is a semantic characteristic of the world of the profession” (p. 311). Artemèva emphasizes that “comparison of semantic typologies with a professional ... will give an essential insight into understanding the problem of the suitability of a person for a profession, of the

depth of the acceptance of a profession, of the development of the system of activities promoting the acceptance of a profession” (p. 243). Researching some professions in her own conceptual model of the image of the world, Artemèva obtained some interesting results that revealed the existence of semantic vectors characteristic of each of these professions. But semantic vectors are still not structure-forming components, with the help of which it would be possible to study different kinds of professional activity. From my point of view, it would be more exact to speak about an invariant image of the world instead of about an image of the world as such. In A. N. Leontiev’s concept the image of the world is an integrating notion.

While researching the dynamics of professional subjective semantics in medical students in relation to different forms of the organization of training communication (Khanina, 1986, 1990), I raised a question: What actually forms in students as the result of their university education? Traditionally we speak about the development of knowledge, abilities, and skills, which undoubtedly form. But, because of the fact that for physicians as well as for medical institute students the world begins to be perceived through the prism of the profession, there is a need for some construct that, first, would describe the dynamics of this perception, and, second, would allow study of it. It would be tempting to call this construct the “professional image of the world.” But the image of the world that was introduced by A. N. Leontiev, which was mentioned above, is an integrating concept that includes all the life activity of a person. Because of these circumstances, it is not correct to introduce various categories of the image of the world. For this reason I have introduced the concept of the “professional view of the world” — a system of relations of the specialist-professional with the objects of the world (Khanina, 1986, 1990). The structure of the professional view of the world is determined by the following formative elements:

- (1) professional semantics
- (2) features of the professional reflection of situations
- (3) features of professional interpersonal perception
- (4) professional aspects of communication

This construct is, on the one hand, both individual and group, and, on the other hand, allows us to “measure” the degree of entrance into the profession. A special question is why, in introducing the construct, we say the view of the world instead of the picture of the world, even though the latter is widely used by psychologists. A. N. Leontiev especially emphasizes that “sensual modalities form the ever-present texture of the image of the world. But the texture of the image is not the equivalent of the image! So in painting the object appears through the dabs of oils. When I look at the portrayed object, I don’t see the dabs, and vice versa! The texture, the material is removed by the image but not obliterated by it. The image, the picture of the world, includes not the portrayal but the portrayed (only the reflection reveals the portrayed, reflected reality, and it is important!)” (1983, p. 261). I introduced the construct “professional view of the world” instead of “professional picture of the world” just in order to avoid a static portrayal that can be dangerous for a num-

ber of professions, such as that of physician. In addition I discussed the construct “professional view of the world” with Klimov. He agreed that for some professions of the “person-person” type—such as, for example, doctor, teacher—the concept “picture” implies a certain static character that representatives of these professions shouldn’t have.

However, further theoretical work on the given construct has shown that the “name” of the concept does not absolutely correspond to its content. The content of the construct is more capacious. The professional view of the world is still largely perceptive processes, but in the content we speak about the system of relations. Naturally relations cannot be built without perceptive processes (direct or mediated). It is not by chance that D. A. Leontiev speaks about the semantic nature of personality relations: “A modified form of meaning relations providing their steady fixing in the personality structure is a meaning disposition. The meaning dispositions represent the form of fixing of the subject’s relation to the objects and to the phenomena of reality, determined by the role and the place of these objects and phenomena in his live activity” (Leontiev, 2007, p. 205). In connection with these circumstances, I have made some changes and have introduced the construct “professional world” (Khanina, 2009). The professional world is a system of relations of the specialist-professional with the objects of the world. Its structure-forming components are:

- (1) a professional view of the world
- (2) professional actions and operations
- (3) professional reflection on situations
- (4) professional aspects of communication

In turn, the professional view of the world includes professional semantics (the language of the profession) and professional interpersonal perception. The “professional world” is included in the invariant image of the world of physicians. To repeat, the invariant image of the world is abstract models describing common features in the view of the world of various people (according to A. A. Leontiev), and they surely must be present in physicians.

We again return to the personality of the medical university lecturer. The “presentation” of the professional worlds of lecturers, through which the development of the professional worlds of students occurs, takes place during the teaching of medical students. The result of this formation is determined largely by the features of the professional worlds of the lecturers, by the dynamics of the development of these professional worlds, and by the parameters influencing them. However, the existence of professional worlds does not mean that they are identical in all the lecturers in medical institutes. Everything will be determined by the personality of a lecturer. But there will be similar traits in each of the structure-forming components.

Further study of the relationship among the constructs “image of the world,” “invariant images of the world,” and “professional world” demands special theoretical and empirical research.

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