Linguosemiotic Correlation of Categorial Domains of Professional Metaphor in Individual Signification Practice

Nina Pavlovna Soboleva, Anastasia Viktorovna Fakhrutdinova & Olga Stanislavovna Zubkova

Abstract
The study discusses multi-aspect correlations of the categorial domains of professional metaphor and aims at determining the factors that influence individual signification practice in medical colloquial speech. Within the framework of the research a natural experiment was conducted. The nomothetic technique was used to study groups in two private clinics in Boston and New York, two private clinics in Paris and Lyon and two in-patient medical institutions in Kursk. The given method was applied under the conditions of “a double-blind experiment”. Having analyzed the resulting scripts and texts, professional metaphors were identified that produce a new meaning in the spoken speech of medical workers. Professional metaphors that function in spoken medical communication implement meanings created on the basis of dynamic interpretants in individual signification practice. The result of the identifying reference within the framework of the individual signification practice is the formation of a dynamic interpretant speaker / observer as a kind of illusion of clarity of meaning, on the basis of which communicative interaction is then constructed and manifold linguosemiotic correlations of professional metaphor are manifested. The individual signification practice is influenced by the characteristics of the subject-in-process of creating and restructuring the sign form of the object from material obtained from external influences or produced by the speaker himself.

Keywords: Language, Speech, Professional speech, Speaker, Linguistics, Metaphor, Semiotics.

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1 Please cite this paper as follows:

2 Kazan Federal University; NPSoboleva@kpfu.ru

3 Kazan Federal University

4 Kursk State University
1. Introduction

The view of metaphor as an integral part of language is gradually becoming a dominating one within the linguistic paradigm. In this respect, metaphors are regarded as being crucial for nominative, cognitive, and communicative goals. When considering the communicative activity of an individual, special attention is paid to the spoken component of professional speech. The latter manifests a certain set of symbols and knowledge, common for all members of the professional community, that are viewed in terms of individual, cultural and professional cognitive-semiotic spaces.

The paper discusses multi-aspect correlations of the categorial domains of professional metaphor and aims at determining the factors that influence individual signification practice in medical colloquial speech. There are a number of spoken communication parameters that affect the language behavior of an individual. Among such parameters we distinguish: space (the place where communication takes place directly), situational topics (“Discussion of treatment options”, “Discharge of a patient”, “Patient admission to hospital”, etc.), temporality (time when communication takes place: during work or leisure time, etc.) (Makhmutova & Lutfullina, 2017), communicative partnership (communicative roles of interlocutors: Speaker/Listener, Speaker/Observer, communication objectives of the addressee and the addressee, professional roles, the nature of their correlation in the career structure, etc.) (Sánchez & Valenzuela, 2018).

Within the framework of the research we conducted a natural experiment using the nomothetic technique (Zubkova, 2011, 2013) in two private clinics in Boston and New York, two private clinics in Paris and Lyon and two in-patient medical institutions in Kursk. Our experimental group consisted of 230 subjects aged 34 to 56 years.

2. Methods

A developed and tested method was applied under the conditions of “a double-blind experiment”: being unaware of the purpose of the experiment, the assistant received a task from the experimenter to register (record on a voice recorder) those communicative situations of medical workers (and/or patients) that seemed to be the most interesting to him.

Under the conditions of the carried out experiment, the use of the proposed nomothetic technique excluded the dominant of subjects’ positive self-representation and leveled the importance of their adaptive behavior, in general. Meanwhile, when using the nomothetic technique, the experimenter was deprived of the freedom to display a certain tactical flexibility and change the direction of the experiment in accordance with the data found in its course. In other words, there was no continuous
recording of live speech (as in the traditional version) followed by the experimenter’s sampling of contexts that are satisfactory for the objectives of the research.

Record-keeping was also significantly different from the generally accepted one (Olsman et al., 2019). At first, groups of subjects were conditionally designated (medical specialties were specified). Then the experimenter’s assistant recorded all the features of the speech behavior of subjects, available at the most for detailed observation. In our experiment, a “participant” observation was used; i.e. the assistant himself was a member of the group whose verbal behavior he recorded in the protocols (Abishov et al, 2018).

A proper maintenance of the study protocol allows to subsequently draw generalizations by analyzing the obtained empirical data. All the comments of the subject were recorded in the protocols during the experiment. Research protocols were conducted on separate sheets. At the beginning of the protocol the date was recorded, the department was designated, the age and position of the medical worker as well as the type of communicative situation were indicated. Protocols were stored in chronological order. The accounts and conversations of the subjects were recorded verbatim, with the fixation of pauses and intonations. In such cases, psychologists usually resort to a transcript (in the given case, under the conditions of operative treatment) – to a hidden tape recorder or a dictaphone. After receiving the study protocols, a primary analysis of the material was carried out in order to isolate professional metaphors as well as mathematical processing of empirical material.

Since it is not possible to completely level the subjective assessment of the material obtained, at the stage of interpretation we invited experts (representatives of those specialties that were studied in the course of the experiment, but working in another clinic). Particular attention was paid to the analysis of cases of “incorrect” (according to the experts) understanding of metaphors. Further, professional metaphors were summed up separately, the experts determined the “profiling” of the latter, i.e. established their professional sphere of metaphor functioning.

In contrast to the traditional method, within our method of recording live speech we found it possible to combine two methods to obtain a more complete picture of reality: nomothetical and ideographic. In our study, the idiographic approach based on the fixation of individual cases (in our experiment, cases of using professional metaphors) made it possible to note an indirect or unintended effect on an individual, reflecting the effect of the metaphor’s sign imprinting in the cognitive space. This was expressed at the level of verbal or behavioral reactions when perceiving a professional metaphor. The idiographic approach was complemented by a subjective definition method. This required the experimenter to keep additional observation cards, which were then presented to the experts for assessment. On the basis of the cards the latter identified the “subjective-professional” features of the language reality of the medical worker. In the presented cards the experimenter recorded the “objective” characteristics of the verbal behavior of medical workers,
without being able to influence the object of study directly. It should be noted that
the idiographic method in our study is considered as intermediate, aimed at solving a
specific research problem. It must be noted that this kind of "experimental refinement" is not a part of the internal model of the traditional method of recording
live speech.

3. Results

Analyzing the resulting scripts and texts, we noticed that they contain
lexemes and expressions that are alien to the severity of the medical description. The
aforementioned phenomena within the framework of medical discourse are used
primarily in an “unusual” context, whereas the opposition in them of direct and
figurative meanings is a productive prerequisite for the formation of a metaphor.
Therefore, we considered it possible to qualify them as professional metaphors,
formed as a result of the interaction of two elements, which urgently produce a new
meaning in the spoken speech of medical workers. Professional metaphors reflect
the same meaning in verbal communication as terms that are Greek- and Latin-based
ones and recorded in dictionaries (Bekimbetova & Danilova, 2015).

Professional metaphors that function in spoken medical communication
implement meanings created on the basis of dynamic interpretants in individual
signification practice. On the basis of a dynamic interpretant, a structure of the
meaning of a professional metaphor is built, and it is the interpretant that, as a result
of identifying reference, determines the “angle of view”, highlighting the basis for
construction in the individual signification practice. The operations of the reference
of reality are “recorded” by means of invariants and primitives in the semiotic map,
rearranging the professional semiotic continuum. In this case, the identification of the
hidden distinctive characteristics of an object or phenomenon, familiar to the human
consciousness, makes it possible to transfer them to the field of medicine. For
example: "old-timer's disease" – Alzheimer's disease; "dowager's hump" –
osteoporosis.

In our opinion, metaphorization (coding in the individual semiotic
continuum) is carried out within the framework of situational modeling. Initially, the
identification of the new object takes place, which requires a special designation.
Then – a comparison of this object with others already known; a special role is played
by the reliance on the situation, the structure of knowledge about what and how it is
connected in the outside world. Some feature of an object or a phenomenon of reality
may become the focus of the Speaker’s attention, which might be not so substantial
but, nevertheless, causing the most vivid impression. Since other qualities of the
object remain in the “shadow”, certain conditions are created for the formation of a
metaphorical “flux” that is further inflated due to the specific categorization by the
standard.
Conceptual categorization, implemented in the semiotic map, represents the final result of the process of semiotic structuring of a subject / object. In case of metaphor identification in a semiotic map, the first step is the occurrence of categorization and merging of compared lexemes' features, and then, due to the “pop-up effect”, the automatic “detection” of the target stimulus. At the next stage, the designation of a new object takes place. The linguistic form states the result of the comparison, sums up the thought processes of analysis and synthesis of the features of objects. The speaker creates a dynamic interpretant, filling it with its own semantic content to the maximum, which manifests itself in a complete form within the framework of a communicative act as a final logical interpretant. At the same time, professional metaphor itself is organically embedded in professional discourse and appears as some empirical form by which the subject-in-process reveals their personality. For example:

- Kollega, prostate, no ya ne soglasen. Prezhde vsego, nerealizovannaya agressiya mozhet so vremenem privesti k depressivnomu sostoyaniyu. Napomnyu, impul'sivnyye tendentsii provotsiruyut destrukтивnyye psikhitcheskiye deystviya, nepriyemnye otlichayut lyuboye mnennoe ot svoego; a agressivnyye i autoagressivnyye (typy lichnosti), predvosproizvodnym razrushitel'nym zaboletviyam. Zdes' vozmozhnye trudnosti otnosheniya s roditelem ili tyazhelye rodovye sobytiya. Poetomu govorit' o shizotipicheskom rasstroystve, po-moyemu, nel'zya. Tut zhe yavnuy napryazhenny afekt! Ya znayu o chem govoryu. Nasmotrel'sya v stastionare. Da i vashe ponimaniye maskirovannoy depressii, myagko govorya, otlichayetsya ot opisannogo v klassicheskikh uchebnikakh. (“Dear colleague, I'm sorry, but I do not agree. First of all, unrealized aggression can eventually lead to a depressive state. Let me remind you that impulsive tendencies provoke destructive mental actions that are unacceptable and devalue any opinion that is different from its own; and aggressive and auto-aggressive (personality types) are predisposed to destructive diseases. There may be difficult relationships with parents or difficult birth events. Therefore, in my opinion, it is impossible to talk about schizotypal disorder. Immediately obvious intense affect! I know what I'm talking about. I saw enough in the hospital. Yes, and your understanding of the masked depression, to put it mildly, differs from that described in classical textbooks.”)

At the same time, the perception of a professional metaphor leads to actualization of awareness of a certain, related to this word “sensory group” at different levels (Sechenov, 1943) which includes the image of a word based on the knowledge of the properties and attitudes of the objective world by people. E.g. “crock” – a patient who often complains; “soufflé” – a patient who jumped or fell from a height, “parasite palustrique” – a patient with malaria.

Our experimental material shows that the phenomenon under study depends on the influence of various factors on the experience of someone else's comparison,
which leads to the construction of various scenarios of the semantic field in the mind (subconscious) of a person – specifically colored subjective definitions. In our experimental material, this was manifested through the variability of interpretation of the original units – professional metaphors. For example, in response to our request to clarify what is meant by “ambulatory automatism,” group gave the following subjective definitions: “epilepticheskii avtomatizm. Zhal' na nikh smotret’», «U epileptikov. Forma epilepticheskogo avtomatizma. V podobnom sostoyanii bol'nyye sklonny k peremene mest: ukhodyat, inogda dazhe puteshestvuyut, predstavlyayete! Pridya v sebya, oni okazyvayutsya inoy raz ochen' daleko, v kakom-nibud' sovershенно neznakomom meste, sokhranyaya lish' smutnoye vospominaniye o proisshedshem na urovne neponyatnykh oshchushcheniy. U menya v otdelenii pochti vse takie. Glaz da glaz...” (“epileptic automatism. It is a pity to look at them “,” “At epileptics. A form of epileptic automatism. In such a state, patients are prone to changing places: they leave, sometimes even travel, imagine! Having come to their senses, they sometimes find themselves very far away, in some completely unfamiliar place, retaining only a vague memory of what happened at the level of incomprehensible sensations. In my office, almost all of these. One should keep an eye...”)

Professional metaphors and their use in a language game, reflecting the creative ability of the individual, combined with the emotional assessment of the object or the object of the surrounding reality are of particular interest. For example: "gasser" (gasman) – an anesthesiologist; “knife-happy” (happy to wave a knife) – a surgeon who often operates; "molar masher" (masher, crusher for fruit) – a dentist. The purpose of using such units is not only to attract attention with the help of a sonorous form, but also to fill this form with information about a process, a phenomenon. For example: "hole in one" – a gunshot wound in the mouth or other physical opening; “deep fry” (well done) – cobalt radiation therapy.

Such phrases are defined as a result of both individual and professional signification practices, which “concretize” the meaning of a word within the framework of a specific professional context of use – medical discourse. In addition, it is significant for us that these professional metaphors express individual knowledge and a special type of perception of professionally significant realities. For example: “doc-in-the-box” (doctor in a box) – a medical facility in a mall or a “vegetable garden” – an intensive care unit, a ward for patients in a coma.

As it is shown by our experimental material, the metaphor acts as a mediator, as a means of addressing a specific situation. Information caused by a word is always perceived by someone, and at a certain moment in individual signification practice there is a distinction between one’s own and another’s vision of the situation, some fragments of the situation are “concealed”, and some – on the contrary, appear particularly bright. This is confirmed by our experimental data. For example: “ward
X” – morgue; "Aztec two-step" – diarrhea, acquired in Latin America; “Delhi belly” is an upset stomach acquired abroad.

Most often in the study protocols the determinant of the image of metaphor appears. Perceptual activity of the study group in the process of finding "similarities" is associated with the "attraction" of the invariant traces of past experience, fixing and recreating it in the current context. Operating on previous life experience, medical workers provide the correct (according to experts) interpretation of the phenomenon under discussion. In these cases, the correlation between generic and specific characters is effective (the first are the generic, and the second is the specific signs). However, along with the “correct” solutions, “erroneous” solutions are found, often by formal similarity. In these cases, as has been revealed, professional metaphors arise, which are used in the form of abbreviations. For example: "TSSH - too sick to send home"; "JON - God only knows" ("the preliminary diagnosis is unclear); "HBD - has been drinking". Such professional metaphors provide the physician with the opportunity to put forward certain hypotheses, less limited by given conditions, less predetermined by the already available visual information. There is a certain synthesis of the situation on the reference dominants, the inclusion of itself in the situation. At the same time, doctors emphasize the details. For example: "HHH - high, hot and hell of a lot (enema)” - (consequences after an enema).

This confirms our assumption about the presence in the signifying activity of an individual of an active, constructive beginning, “provided” by the interpretant, objectifying the results of the procedural dualism of the sign. On the one hand, due to the formation of the latter, the individual generates any semantic configurations within the framework of individual reference. On the other hand, the context in which he expands his constructive activity, because of the language convention, does not allow the design to be completely arbitrary, that is, it imposes its limitations.

4. Discussion

Thus, the inner property of the sign (to be interpretable), which underlies the correlation between the signifier and the signified-in-process, realizes the activity of the nominating subject-in-process and ultimately determines the reasons for motivation (the correspondence of the given language form to its content). “Aktivnost' nominiruyushchego sub"yekta privodit k obratnomu protsessu – ot konventcializatsii k pragmatizatsii simvolicheskogo znaka”¹ (Kustova, 2010).

We believe that the decoding of metaphors in the professional semiotic continuum is carried out through the filter of the sender theme and the receiver theme, and the newly formed metaphor acquires its integrity due to this double dominance.

¹ “The activity of the nominating subject leads to the reverse process – from conventionalization to pragmatization of a symbolic sign”.
The metaphor carries the trace of this process, since it reflects the semasiological perspective, which marks a unidirectional interpretation of the signs, and onomasiological, which distinguishes the production of signs. Understanding of new values depends on the development of other values included in the semiotic field, allocated as a result of categorization. Linguistic demonstration and mental representation of an object freely mix and form an infinite number of options for perceiving an object. Since language as a multidimensional and self-regulating system is a part of a single and indivisible semiotic continuum, the Observer associatively extracts relevant metaphorical information based on the situational context.

Within the framework of semantic reference, only what is allowed by its own potencies is actualized by attributing the formed image of metaphor in the language of characteristics and relations of subject content disclosed in the image into the logical fabric of the language. Thus, the synthesis of the internal base and external substantiations of the metaphorizable object is carried out in the individual signifying practice.

5. Summary

The intensional potential of the sign acquires special significance, since it specifies the sign of metaphor through relations to other signs, which is the basis of the subsequent logical definition of its own interpreters and the clarification of the meaning in the language field. Consequently, within the framework of individual reference, the updated (as opposed to chaotic semiosis) meanings that constitute the resulting constructive images of the sign object correspond, which, as a result of reflection, are explicated as a new content of the metaphor sign. At the same time, the surrounding reality, reflected in the cognitive space of the subject-in-process, is refracted and structured into an isomorphic "illusory" image of reality (Gurevich, 2010). The result of the identifying reference within the framework of the individual signification practice is the formation of a dynamic interpretant speaker / observer as a kind of illusion of clarity of meaning, on the basis of which communicative interaction is then constructed and manifold linguosemiotic correlations of professional metaphor are manifested.

6. Conclusions

Thus, individual signification practice is influenced by the characteristics of the subject-in-process of creating and restructuring the sign form of the object (as the basis of the interpretational choice) from material obtained from external influences or produced by the Speaker himself, dynamic processes of semiosis in the cultural continuum and language practice specific linguocultural community. In the process of forming an individual reference, the extensional definitions of the sign are
narrowed down, taking into account the main subject referents from among the subjects within the scope of the sign.

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