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Mental Structure of Assessment and its Hierarchic Structure

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Abstract

This article describes the conceptual basis of formation of the mental structure of assessment. As it is stated in the ongoing research, the structure consists of obligatory and optional elements which constitute a hierarchy. To prove this fact, special attention is given to the conceptual features of these elements, their content and correlation with the object of reality. Considering the mental structure under study as a structure with transparent borders, we pay particular attention to the possible connection of the concept under study and other mental structures in the situation of assessment. Similarity between the mental structure and a synergetic self-developing system is also pointed out. This is possible due to the equivalent parameters of the concept of assessment and self-organizing non linear, dissipative synergetic system flexible to changes in the process of evolution.

Keywords: Interdisciplinary approach, Dynamic, Assessment, Value, Mental structure, Concept, Synergy.

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Introduction

The global issues for modern linguistics are the problems of the emergence, formation and existence of conceptual categories from the point of view of their role in revealing the cognitive nature of a language. And such questions concern not only language research, but also general scientific spheres. The category of assessment refers to similar phenomena that are often studied. The latter applies to a large number of diverse language units of different levels and from a linguistic point of view are studied in the aspect of pragmatics. At the same time, understanding of the category of assessment is determined by the value orientation of human activity and consciousness. The process of the person's assessment of the world is associated with cognitive activity and in the epistemological plan reflects the act of assessment of the objective reality by the subject. In the opinion of G.V. Kolshanskij, assessment *is the intellectual operation performed by the subject of the utterance (perception, understanding, synthesis, conclusions, and the like) representing the value of in the broadest sense of the word* (Kolshanskij, 1978).

And if we take into account the fact that assessment is of pragmatic and cognitive nature, it is important to make a linguistic research taking into account such an aspect as *models of the world that are kept in the minds of communicants* (Karaban, 1992). In this connection, it is quite appropriate to study the assessment taking into account the provision on the existence of dynamic knowledge structures, one of which is the concept evolved in phylogeny, ontogeny and sociogenesis due to social, economic, political and sociocultural factors (Gizdatov, 1998). However, in this case it is necessary to note the syncretism of semantics and pragmatics, when the meaning of lexemes and the reflection of the speaker's attitude are inseparable. This raises the question of how the fact of the appearance of positive connotations in the semantics of vocabulary can be explored, but also an adequate perception of these meanings. Based on the latest scientific research, we can appeal to the interdisciplinary cognitive-oriented approach, which allows to study the extra linguistic basis for the formation of mental structures of knowledge, the actualization of which determines the storage and processing of information on assesment. Thus, acting in the aspect of the modern approach aimed at studying the features of the projection of the experience perceived by man into the semantics of lexical units, we carry out an analysis of linguistic works and a primary work with authentic linguistic data.

Methods

This article is a descriptive paper the main goal of which is not only to show the epistemic structure of assessment, but also to analyze its hierachic structure of the cognitive level, illustrate the conclusion with the help of the relevant factual material. This it is based on the systemic approach to the term interpretation, analysis of different points of view. We also take into consideration the interdisciplinary approach of modern linguistics which allows us to search objective reasons of our choice.

Discussion

We assume that the mental structure is a concept meant as a quantum of structured knowledge, information, and has a verbal embodiment in the form of lexical units of various semantics. It is the concept that is the most relevant structure of knowledge for obtaining objective results, since such an epistemic structure of knowledge has a number of positive features, including the following:

- the concept is inexhaustible in its essence: all means of its objectification can not fully and absolutely objectify it, which gives the ground for the existence of a large number of similes, synonyms, idiomatic expressions;

- All listed lexemes with their system and / or functional value draw to the concept, meeting the criteria for its identification (objectifying the mandatory conceptual features of the concept);

- According to the completeness and quality of the actualization of the concept, all verbalizers associated with it can be ranked according to the core-periphery principle, and also thematically;

- The concept has a relatively stable invariant nuclear part, which, when objective, provides understanding among the participants of communication, obediently objectifying in the meaning of the lexemes chosen by the communicants;

- In addition to the invariant framework, the concept includes a zone of the peripheral conceptual beginning formed by facultative conceptual features;

- Optional conceptual features are not obligatory for objectification, but their actualization allows to profile the facets of assessment situations when solving a particular communicative task;

- A set of obligatory conceptual features is fixed, for this reason it corresponds to the parameter of identification of lexeme-objectors; the set of optional components varies in composition and quantity, it is unlimited and can be supplemented in unlimited quantities;

- The concept is open to new information due to the possibility to overlap other concepts, to intersect with them and to absorb some information on the peripheral zone;

- Accordingly, the concept is dynamic, inexhaustible in content.

All these parameters allow to supplement the definition of the concept and adapt it to this study. Thus, the concept is a mental epistemic structure of knowledge, identified on the basis of obligatory conceptual elements, and differentiated by countless facultative components, which allow it to be an open, non-linear dynamic self-organizing system and associated with a synergetic in discursive conditions. The latter is possible both at the conceptual level, when only conceptual elements are considered as a structure, and at the level of verbal representation, when lexical means of objectifying the concept are taken into account. The latter will be called the lexico-semantic system of verbalizers of the concept. In this case, we proceed from the proposition that such a bilateral conceptual and objectifying concept system, identical in functional properties to a synergetic self-organizing system, functions under discourse conditions, triggers mechanisms for incrementing valuation meanings to the value of verbalizers. Amorphous properties of such a system allow it to communicate with the external environment and receive information from the surrounding world, adapt to it and evolve in a chronotope (online time).

Let us turn directly to the definition of the conceptual basis for the formation of the conceptual structure of evaluation. So, we can distinguish the following invariant conceptual components of the planned mental structure: *modus*, *object*, *relation*, *subjectivity/objectivity* (*opinion about value, level or meaning of someone/something*). Among the optional components, due to the analysis of linguistic facts, one can name *parameters*, *intensity*, *gender* etc. The list of the latter, as mentioned earlier, is not and can not be absolutely completed on the basis of openness and transparency of the boundaries of the concept as a mental structure of a dynamic nature.

The first conceptual features are interrelated and interdependent. So, for example, the conceptual component *modus* is a positive or negative result of assessment. It is this component which connects the conceptual structure of assessment with the value scale in the consciousness of the individual, expresses the pragmatic side of the situation (qualifies the object as useful/useless, positive/negative for the subject) and explicates the presence of such a component as *attitude*. The latter expresses the reaction of the subject while assessing anything in correlation with the value scale. Such an assessment reaction profiles the conceptual component *subjectivity/objectivity*, and explicates the component *the subject of*

assessment. The situation of assessment, based on the systematization of extralinguistic knowledge, is impossible without the object of assessment, since assessment is the verbalization of an individual's reflection of an object or phenomenon: it is obvious that objects and phenomena that are not lacunae fall into the category of assessment.

The presented interrelation of conceptual features allows to construct the following hierarchy of assessment, or its minimum conditions. So the process of assessment is possible if there is an *object of assessment* (initial impulse), *a subject of assessment* and *a basis of assessment*, representing the position of the subject when the object of evaluation is approved or denounced.

Let us turn to the description of the optional components of the mental structure of the assessment. The conceptual component *parameters* is associated with the objective side of the assessment. This component determines the possible outcome of the process of forming a subjective attitude to the object depending on extra linguistic circumstances. Nevertheless, this component is not ligated, because under the conditions of unconscious assessment or intuition, the factor of parametrization is excluded from the above algorithm.

The gender factor is associated with the component *subjectivity* and determines the dependence of the gender of the subject and his or her attitude to the object of assessment. The identification of such a conceptual attribute is justified, since it has long been established in psychology that women and men perceive the surrounding reality in a somewhat variative way towards each other, which is manifested, as a rule, in the formation of peripheral representations.

The conceptual component *intensity* is associated with the conceptual sign of parametrization, because of parametric features. The existence of such a component is socially conditioned, since the assessment can change its intensity depending on the social environment, the social status of the subject, mental characteristics, education, upbringing. Taking into account the extralinguistic factor, such a component can be graded as weak, medium and intense.

The presented optional conceptual features, as stated earlier, can be identified and supplemented in accordance with their consideration in the authentic literature when analyzing the verbalizers of the concept. They, as follows from their description, profile this or that facet of the assessment in certain communicative situations. Accordingly, the cognitive interpretation of the examples of the factual material containing the lexemes with the certain connotation will allow not only to verify the obligatory conceptual components, supplementing the set of optional features, but also to point to the trajectory of the modification of the semantics at the functional level due to the correlation with the objectified lexemes and mental structure and the analysis of its intersection with the concept of assessment.

Earlier it was noted that the mental structure of the assessment exists in correlation with the value system of the individual. The latter is transmitted from one generation of linguoculture to another. This means that such information is broadcast ready-made and can undergo metamorphosis only in certain historical periods. At the same time, the process of assessment, taking into account the conceptual signs of *subjectivity/objectivity*, is a labile, self-adjusting and changing phenomenon. This fact motivates to take into consideration the theory of artificial intelligence, which describes a two-level organization of perception of information. In the work of I.A. Kuprieva such an organization of the intellectual system includes a level of high degree of abstraction (invariant information broadcast by the linguistic cultural community in an unchanged form) and a level of low degree of abstraction (which corresponds to the subjective consciousness or consciousness of a particular person). Taking into account these facts, we note that the value system of linguoculture is at the level of a high degree of abstraction, and the concept of assessment, mainly its optional conceptual features, belongs to the level of low degree of abstraction, that is, to the variational beginning (Kuprieva, 2014).

Note that the presented mental structure of assessment, when considered in the forefront of the study of the conceptual foundations for its formation, is characterized by a sufficiently structured, but nonetheless, variability form. Due to its description and the establishment of its mandatory and optional conceptual features, it will be possible to determine the features of the modification and the trajectory of changing the semantics of tokens in certain discursive conditions in the aspect of the linguosynergetic doctrine, which is made for the perspective of this study.

The latter is also relevant for the study of the concept and primarily its intersection with mental structures of a similar order. This approach is important when considering open systems that are capable of evolution through restructuring. Such a system, from our point of view, is a concept.

The latter is open to new information by crossing with other concepts, then to restructuring at the cognitive level, which in the natural communicative situation is expressed in changing the semantics of the verbalizers of the concept and adding semantics. The direction of changing semantics can be traced through a step-by-step work with the mental structure of the concept and taking into account its modifications from the standpoint of linguosynergetics. The question of restructuring and reflection of this process at the level of natural language will be carried out through contextual, definition analysis, cognitive interpretation at the level of the language and through the methodology of linguosynergetics, taking into account the process of intersection of concepts at the conceptual level. This combination of methods will allow us to identify not only the principal directions of the modification of semantics in the context, but also the mechanism for incrementing this value at a conceptual level that provides an adequate understanding of the meaning.

The work in the direction of linguoaxiology is also a priority direction, because it allows to view the features of the value and appraisal perception of reality. It is taking into account the methodology of linguoaxiology that the principal conceptual components of the desired mental structure were identified, their inalienable characteristics were described.

The synergetic movement towards the evolution of the concept with the increment of additional meanings easily translated into the semantics of lexical units is due to the factors that trigger this mechanism. In other words, in the process of the speech situation, communicants are motivated to use certain lexemes to achieve a full pragmatic effect. The launch of the chaotic state of the self-organizing concept system is carried out at the expense of certain factors. The latter are researched in psychology and psycholinguistics in the actual activity approach to the language, which postulates the impact of goals, operations on the search for lexical means for solving the communicative task.

The study of such factors will make it possible to most objectively introduce the mechanism of the launch and operation of the open self-organizing system of the concept.

The methodology of cognitive science, linguosynergetics, linguoaxiology in combination with traditional methods of private linguistic analysis are aimed at finding common grounds for describing the estimated potential of lexemes. The choice of the research language palette is determined by the need to be as objective as possible in the search for the most common principles of incremental value evaluation, and also the goal of developing general principles relevant to the study of any vocabulary, regardless of thematic, part-time, and linguistic groups.

However, the primary linguistic analysis of lexemes that can verbalize the concept of evaluation at the system and/or functional level shows that not all tokens share the same value. In this connection, there arises the need to streamline the lexico-semantic system of verbalizers of the concept under consideration and conditionally define each lexeme according to the nuclear-peripheral principle. At the same time, we recall that the concept of assessment acts as a universal category with common cognitive bases or invariants

that contribute to understanding in the process of intercultural communication, and variational components that ensure the profiling of one or another facet of the assessment situation.

The process of work in the cognitive direction, taking into account the advanced postulates of domestic and foreign scientists, suggests that the concept of assessment, according to the classification proposed by authoritative linguists, is associated with the abstract universal. However, let us stipulate the fact that the value scale differs from one linguistic culture to another, accordingly, the concept of assessment directly depends on the value system, and besides, it has various means of verbalization.

The verbalization is drawn to the prototypical, that is, to the so-called best examples of the category. And according to them as a basic cognitive basis, they can be ranked according to the nuclear-peripheral principle (Beljaevskaja, 1992; Rosch, 1975).

The prototype is a kind of conventionally better model of the category that creates favorable conditions for identifying and establishing the place of the remaining samples of the category (Rosch, 1975; Givón, 1984; Geeraerts, 1983; Taylor, 1995; Boldyrev, 2003).

In this case, the properties of the prototype are simultaneously inherent in all elements of the category (Lakoff, 1987). Such prototypical scenes act as the basis of man's knowledge of the world (Fillmore, 1988; Demjankov, 2003), subsequently they allow to organize the knowledge of the individual no matter where and when they first met.

As a prototype, a lexeme associated with a whole prototype scene carrying actual information and is not associated with any additional information appears (Dejk, 1989).

Taking into account the fact that the assessment itself is a polar phenomenon, and also relying on extralinguistic data and associating it with the scale of the value system, we believe that the prototypic lexemes are *хороший/плохой*.

Let's illustrate the said using the example of the Russian language in correlation with the mental structure of assessment. Let's look at the vocabulary definitions of lexemes *хороший* and *плохой* in online dictionaries. The adjective *хороший* is defined as follows:

1. Обладающий положительными качествами или свойствами, вполне удовлетворительный, такой, как следует; ант. дурной, плохой.

2. только кратк. То же, употр. для выражения иронического отношения к кому-чему-нибудь, пренебрежительно - неодобрительной оценки кого-чего-нибудь (разг.).

3. Вполне достойный, приличный (см. приличный в 1 знач.).

4. Значительный, вполне достаточный.

5. Близкий, искренний, исполненный дружбы, дружеских отношений.

6. только кратк., со словом «собою» или без него. Красивый, очаровательный по внешности (Slovari…, 2014).

And the adjective *плохой* has the following characteristics:

1. Лишенный положительных качеств или свойств, вызывающий отрицательную оценку; противоп. хороший.

2. Дурной в моральном отношении, вызывающий моральное осуждение, нехороший (разг.).

3. Неприятный, гнетущий, дурной, безрадостный.

4. Недостаточный для какой–н. цели, непригодный, слабый (разг.).

5. только кратк. формы, в знач. сказуемого. Слаб, не подает надежд на выздоровление (о больном).

6. в знач. сказуемого пло́хо, кому–чему (разг.). О плохом физическом самочувствии, о крайне болезненном состоянии (Slovari…, 2014).

As it follows from the presented vocabulary definitions, the polar lexemes *хороший/плохой* verbalize all the obligatory conceptual elements *modus*, *object*, *attitude*, *subjectivity/objectivity*.

Conceptual features *modus* and *attitude* are explicated in such a part of the definition as *devoid of positive qualities or properties that cause a negative evaluation* and *having positive qualities or properties are completely satisfactory*. The fact that each of the items in the dictionary article explicates the existence of a positive or negative characteristic of the phenomenon allows us to speak about the explication and actualization of the component *object*. Concerning the actualization of the component *subjectivity/objectivity*, in this case the question concerns the actualization of the conceptual criterion of objectivity, since the dichotomy *хороший-плохой* is for the most part relatively objective category.

The definition of adjective tokens *хороший/плохой* and their equivalents in other languages as prototypical ones is also explained by their ability to treat lexical units of a nuclear series, etc., for example:

великолепный - 2. Очень хороший, отличный (разг.). Великолепный работник. Великолепное вино. Он великолепно (нареч.) рисует. Великолепно (нареч.) выспался. Великолепно! (восклицание, выражающее радость, одобрение) (Slovari…, 2014).

ужасный - 2. Очень плохой (разг.). Ужасная погода. Ужасно (нареч.) себя чувствую (Slovari…, 2014).

As stated above, the prototypical tokens are the best examples of the category that are attractors for the nuclear and peripheral lexemes. The first are selected in the three groups of languages also based on the ability to verbalize all the marked required conceptual elements, as well as one or more conceptual features, among which we can name *parameters, intensity, gender* etc. We describe the procedure for determining nuclear representatives.

For example, an adjective lexeme *потрясающий* has the following vocabulary interpretation: *1. прич. действ. наст. вр. от потрясать. 2. Очень сильный, крайне волнующий. Потрясающее впечатление. Потрясающий эффект. Потрясающий успех. Потрясающие события* (Slovari…, 2014). From this definition it obviously follows that the obligatory conceptual signs modus and *subjectivity/objectivity* (*крайне волнующий*), *object* (*успех, события, эффект*) are updated already at the system level. In addition, it is completely undeniable that the lexeme in question, with its dictionary meaning, explicates the conceptual component *intensity* (*очень сильный, крайне волнующий*) Addressing the contextual/functional level of the token *потрясающий* allows also to talk about the potential to actualize other optional conceptual components. Let us illustrate what was said by an example of factual material:

Она оценивает людей так: либо — «потрясающий человек», либо — «негодяй» (Slovari…, 2014).

The primary interpretation of the proposal presented above, the contextual use of the lexeme *потрясающий* in the evaluation situation explicitly explores the optional conceptual component *gender*.

Thus, lexical units of the nuclear series were analyzed, which became, recall, lexemes capable of actualizing obligatory and any optional conceptual signs at the system level. Are there any lexemes in the peripheral zone not actualizing obligatory conceptual signs at the system level, but in certain contextual conditions manifesting such an ability and occasional profiling some or other side of the evaluation of the phenomenon.

Let us illustrate this with an example. So, during the initial verification of data and linguistic analysis it became known that terminology and ethnographic nominations have no appreciable value, however, they were placed in the tables of the evaluation vocabulary database on the basis of the ability to occasionally participate in the explication of the assessment situation. For example, the adjective lexeme *финский* in dictionaries has the following interpretation: *финская, финское. прил. к финн (см. финны). Финский язык. Финская литература. Финский нож - короткий нож с толстым клинком, носимый в ножнах* (Slovari ..., 2014).

In the contextual use of the lexeme *финский* clearly has an estimated value in the sentence:

Оказалось, что этот парнишка неделю назад средь бела дня в отсутствие хозяев влез в форточку на первом этаже дома, похватал в квартире все, что было поценнее - шубу, шапку норковую, песцовые воротники, финские сапоги, даже часы со стенки, - завернул все в хозяйское покрывало с кровати и преспокойненько вышел с узлом из квартиры (Словари…, 2014).

Collocation *финские сапоги* actualizes of the conceptual component *parameters*, which profiles the pragmatic value of the object for the subject. This literally means that *финские сапоги* are high-quality and expensive boots, especially valuable for certain times. Thus, the considered lexemes, systematically unable to actualize the required conceptual features, can occasionally act as a peripheral series of actualizers of the mental structure of assessment.

All the lexemes chosen as elements of the research corpus were ranked identically. Working in this direction and observing the vocabulary of the thesaurus made it possible to draw an important conclusion that some of the lexemes of the peripheral zone translate at the functional level the occasionality into systematicity, that is, at an uncommon value, they are encountered more often, which allows some of them to reflect this feature in the lexicographic source. This circumstance is supposed to be explained by means of correlating the verbalizers of the mental structure of assessment with the synergetic evolving system and describing the specifics of its functioning, which is planned to be implemented in the future.

Conclusion

To sum it up, we can define the mental structure of assessment as a concept which consists of obligatory and optional components, possessing conceptual content relevant to the real extralinguistic situation. These components of the mental structure form a certain hierarchy. On the outer border, the optional elements are not limited in number and this fact allows the structure to be transparent to adding new information from the outside. The parameters make the system very similar to a living dynamic organism, properly functioning system. Being open, self-organizing, flexible to changes in the process of evolution, non linear and dissipative this system resembles the synergetic self-organizing one. This is the characteristic of the system on the conceptual level. In means of verbalization, this system can be seen as a hierarchy of tokens representing its obligatory components to name the whole situation of assessment and some of the optional components to show some specific aspects of meaning. The quantity of such tokens is predetermined by the ability of lexemes to verbalize all the obligatory components of the concept of assessment. And their classification is based on their ability to verbalize all the obligatory components of the mental structure of assessment on the systemic and/or functional level and some of its optional components.

Such approach to the study of the connotation nature of tokens allows to receive objective results and in some points to explain the reasons why this or that lexeme changes its connotation in the certain context. The principles shown in this article can be transmitted to the study other different groups of tokens and opens many perspectives to the further cognitive and conceptual studies.

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