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### РАЗДЕЛ І. МЕТОДОЛОГИЯ СИСТЕМНОГО ИССЛЕДОВАНИЯ ЯЗЫКА

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#### СТРУКТУРЫ ЗНАНИЯ И ИХ РЕПРЕЗЕНТАЦИЯ В ЯЗЫКЕ

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# Аннотация

анная статья посвящена проблеме репрезентации структур знания в языке. В ней авторами предпринимается попытка изучения группы глаголов с общим значением прикосновения с позиций когнитивной лингвистики. С этой целью авторы обращаются к анализу рассматриваемых языковых единиц с точки зрения тех структур знания, которые они репрезентируют.

Знания о ситуации прикосновения фиксирует концепт «ПРИКОСНОВЕНИЕ». Авторы описывают содержание и структуру концепта «ПРИКОСНОВЕНИЕ» для чего он прибегает к рассмотрению слов, которые являются ключевыми в тезаурусном ряду, соотносимом с исследуемым концептом: существительное touch и глагол touch.

Концепт «ПРИКОСНОВЕНИЕ» соотносится с фреймом «ПРИКОСНОВЕНИЕ», который выступает в качестве унифицирующей структуры знания и обусловливает сходство и различие глаголов с общим значением прикосновения и определяет способы их системной категоризации.

Авторы выделяют и описывают компоненты, составляющие структуру фрейма «ПРИКОСНОВЕНИЕ». Облигаторные компоненты фрейма передают минимальные знания о ситуации прикосновения, в то время как факультативные компоненты дополняют общую структуру фрейма «ПРИКОСНОВЕНИЕ» и конкретизируют ситуацию прикосновения.

Фрейм «ПРИКОСНОВЕНИЕ» на языковом уровне может быть репрезентирован как глаголами с системным значением прикосновения, так и глаголами других лексико-семантических групп, приобретающими значение прикосновения на функциональном уровне.

**Глючевые слова**: когнитивная семантика; структуры знания; концепт; фрейм; ре-Кпрезентация знаний; английские глаголы прикосновения.

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# SECTION I. METHODOLOGY OF LINGUISTICS

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### KNOWLEDGE STRUCTURES AND THEIR REPRESENTATION IN THE LANGUAGE

АУЧНЫЙ

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# Abstract

The article deals with the problem of knowledge structures and their representation in the language. The authors of the article analyze the group of "verbs of touch" from the point of view of cognitive linguistics. According to the cognitive approach, the "verbs of touch" are studied with consideration of the structures of knowledge they represent.

The concept "TOUCH" contains knowledge about the situation of touch. The authors describe the content and the structure of the concept "TOUCH". For this purpose they analyse the key words in the thesaurus row, which correlate with the concept under study. These words are: the noun "touch" and the verb "touch".

The concept "TOUCH" correlates to the frame "TOUCH" which is a unifying structure of knowledge and which causes the similarity and difference between the verbs of touch and defines the ways of their system categorization.

The authors define and describe the components which build the structure of the frame "TOUCH". Obligatory components of the frame "TOUCH" contain the minimum knowledge about the situation of touch while the optional components describe the details of the situation of touch.

The frame "TOUCH" can be represented in the language not only by means of the verbs which have the meaning of touch on the system level, but also by the verbs of other lexico-semantic groups which get the meaning of touch on the functional level.

**Key words:** cognitive semantics; structures of knowledge; concept; frame; representation of knowledge; English "verbs of touch".

Modern linguistics has a number of branches; one of them is cognitive semantics. The analysis of the literature on the problem of the research showed that the verbs with general meaning of touch were not distinguished as a separate class and were not exposed to the special analysis from the point of view of the cognitive approach. The separate verbs which name the processes of touching, were already considered either fragmentary or as members of other lexico-semantic groups. The analysis of groups of thematically related lexical units was held mainly from the position of structural linguistics. Despite the fact that there are various approaches to the research of these lexical units, the semantic structure of the meaning of verbs of touch was analyzed in the majority of papers, and the problem of variability and expansion of their meaning remained little-studied. The features of their functioning in speech and individual results which were received in this area are fragmentary. The aforesaid proves the fact the verbs with the general meaning of touch are little-studied and need to be described with the positions of cognitive linguistics.

The analysis of the verbs with the general meaning of touch in the cognitive aspect allows considering them with the point of view of the structures of knowledge they represent [5, 10]. According to the cognitive approach, the categorization of English verbs with the general meaning of touch could be considered at two levels. They are system - paradigmatic and functional levels. The first level of categorization is connected with the representation of a conceptual picture of the world in the language in general, and with language representation of various ways of conceptualization of a situation of touch in particular. To reveal the main principles of the categorization of the verbs under study on the system - paradigmatic level means the consideration of those structures of knowledge which are represented by these units and define them as a semantic group [8]. The categorization at the second level is connected with concrete interpretation of the verb in the statement and is focused on the communicative aspect of the language.

The lexical units which constitute one lexical group represent one and the same concept as they have similar mental ideas. The research

shows that the concept "TOUCH" has complex two-level structure. Conceptual signs of the first level reflect various aspects of the act of touch connect with its ontological characteristics, while conceptual signs of the second level are abstractive signs and are in derived relation to the signs of the first level.

To reveal some of the characteristics of the concept "TOUCH", it's expedient to analyze the key words in the thesaurus row, which correlate with the concept under study. The dictionary gives the following definitions of the keywords:

Touch (noun) – act or fact of touching (OALD: 410).

Touch (verb) – be in contact with, bring a part of the body into contact with (OALD: 410).

Touch (noun) - [ACT OF TOUCHING] - what you do when you put your hand or another part of your body on or against something or someone either deliberately or not (LDOCE: 1529).

Touch (verb) - to put your hand or another part of your body on something or someone so that you can feel them; if two things are touching, they reach each other so that there is no space between them (LDOCE: 1528).

Touch (verb) - [of two or more things] - to be so close together that there is no space between; to be in contact (CALD).

The act of touch is defined by the dictionaries through the concepts "action" and "process"; the part of speech which names actions and processes is the verb. Hence, to reveal the basic characteristics of the concept "TOUCH" is possible through the analysis of those verbs, which represent this concept at language level.

Generalizing the dictionary definitions of the verbs with the general meaning of touch, it is possible to state that any act of touch implicates the contact between two adjoining objects and which is impossible without reduction of distance between these objects. It means that one of the objects moves towards another one, or they move towards each other for making the contact. Hence it appears that the touch is connected with the movement. The act of touch is connected with the movement when the touch makes the object to which it is directed move or when one of the objects moves along the surface of another object.

The touch can have both direct and indirect character. When the contact is direct the sub-

6

ject touches the object with its entire surface, or a part of it or a part of the body (on condition that the object is animate). If the contact is indirect the subject of touch uses any tool to touch the object [6, 7, 9]. The forms with the meaning of a tool and the forms denoting a part of the body or a working part of the subject have outward resemblance, but they are internally different. A part of the body is a part of the subject, but the tool is not a part of the subject, it's separable from the subject. The forms denoting a working part of the subject implement the subject valency instead of the tool valency of a word [1, 4]. It's also possible to make the division within the semantic function of a tool. According to his theory tools can be "inalienable" (to hit with a hand), "alienable" (to hit with a knife) and "occasional" (to hit with a stool) [2].

This phenomenon can be observed in the following examples:

She dabbed at her eyes <u>with a</u> lace-trimmed <u>handkerchief</u> [BNC] (an alienable tool).

She kneeled, leaning forward and touching the fresh earth <u>with palms of both hands</u> [BNC] (an inalienable tool).

In our opinion this division into alienable and in alienable tool is of no critical importance for the structure of the frame "TOUCH" though it should be taken into consideration when analyzing the syntagmatic features of the verbs that represent the frame "TOUCH".

On the assumption of the aforesaid, the following objective features of the concept "TOUCH" from the point of view of its anthology can be distinguished: "contact", "moving", «use of a tool» that is proved to be true by the dictionary definitions of the verbs with the general meaning of touch. An act of touch can have such subjective-oriened feature as "evaluation of quality" of a touch which is based on sensual experience of both the subject and the object of touch [9]. It is proved by the proper adjectives and adverbs describing the force of influence on the subject of touch which can be met in the dictionary definitions of the verbs with the meaning of touch:

Grasp - to take and hold something <u>firmly</u> (LDOCE: 621);

Clutch - to hold something or someone t<u>ight-</u>ly, ... (LDOCE: 245);

Dab - to touch something <u>lightly.</u> usually several times (LDOCE: 338).

To reveal additional characteristics of the concept "TOUCH" is possible by means of the analysis of lexical meanings of the verbs which are synonymous to the verb "touch" (to push, to squeeze, to polish, to smooth, etc.). Various characteristics of touch, such as the type of touch, the way of touch, the result of result etc. are fixed in the lexical meanings of these verbs.

Thus, it is possible to specify the following substantial signs of the concept under study:

- direct physical contact between the subject ant the object of touch;

- indirect physical contact (by means of various tools) between the subject and the object of touch;

- the influence on the object of touch with the purpose of its movement;

- the influence on the object of touch with the purpose of its form or size changes.

The concept "TOUCH" is represented in the language by the verbs of touch in the meanings of which various signs of the concept are lexicalized. The concept "TOUCH" correlates to the frame "TOUCH". A frame has a flexible structure [5, 11] which can be changed in accordance with the motivating context. The frame "TOUCH" is a unifying structure of knowledge which causes the similarity and difference between the verbs with the general meaning of touch and defines the ways of their system categorization.

The structure of the frame can be described as a set of obligatory and optional components. Obligatory components of the frame "TOUCH" form the cognitive-propositional scheme which is a means of the representation of any situation of touch. Cognitive-propositional scheme [subject + predicate + object] contains the minimum knowledge about the situation of touch. However only some signs of the described event are "highlighted" in the lexical meaning of the verb [3]. When it is important to present a situation in more details, this model can be extended; one or more optional components can be added. Optional components of the frame "TOUCH" are: the way of touch, the purpose of touch, the tool of touch, the trajectory of touch, the place of touch, the frequency of touch, the duration of touch and

the circumstances of touch. Optional components define specific character of the meanings of the verbs which cover the conceptual space. This leads to the fact that the lexical meaning of some verbs of a touch contains the indication to one or more characteristics of touch. It can be the result of the influence on the object, intensity of influence to the object, the indication to the tool of the influence to the object. It can be proved by the dictionary definitions. On this basis we can distinguish some subgroups within the lexico-semantic group of verbs of touch. They are:

1. Depending on the **result of influence on the object** the verbs denoting the process of touch at the system level, can be subdivided into:

- the verbs denoting the touch without the subsequent change of properties of the object (brush, clasp, dab, grab, hold, kiss, lay, pat, slap, touch, etc.);

- the verbs denoting the touch with the subsequent change of properties of object, i.e. the change of the condition of the object, its form, size or surface integrity (brush, rub, scratch, smooth, squeeze, wipe, etc.).

2. Among the verbs denoting the touch connected with **movement** there are the verbs which specify the change of the object position in space (*hold*, *pull*, *push*), and the verbs the meanings of which have the indication on movement of the tool relative to the surface of the object (*brush*, *polish*, *rub* contained, *etc.*).

3. According to the **intensity of influence** the verbs of touch can be subdivided into the verbs which denote the intensive influence (*clasp, clutch, grab, press, push, squeeze, etc.*) and non-intensive influence (*brush, dab, kiss, lean, pat, stroke, etc.*).

4. Such verbs as *finger*, *kick*, *kiss*, *nudge*, *pat*, *palm*, *paw*, *pummel*, *slap*, *etc*. can form a separate subgroup, as they have the indication on the working part of the subject of touch in their meanings.

Some of the above mentioned verbs can be the members of two or more subgroups of the offered classification. This fact is the evidence that these verbs have broad semantic opportunities.

The situation of touch can be described not only by corresponding verb with the meaning of touch, but also by means of verbs of other lexico-semantic groups as the result of a functional categorization of verbs in the utterance.

The changes of the category meaning of the verb leads to the reconsideration and expansion of verbal semantics. The verbs of touch can describe various situations of touch. The way the situation of touch is interpreted is reflected in the categorical meaning of the verb. The categorical meaning of the verb is revealed in the structure of the utterance and determined by the following factors: lexical meaning of the verb, the meaning of grammatical form of the verb, the general structural meaning of the utterance and the nearest context.

On the assumption of the above said, the verbs representing the frame "TOUCH" could be divided into three subgroups:

1. the verbs which have the basic meaning of touch. These verbs have all obligatory signs of the frame "TOUCH" and one or more optional signs in their lexical meaning. These verbs profile one of the optional signs within the frame "TOUCH". This becomes their differential characteristics limits their ability to be combined with additional modifiers of sense. For example:

He <u>kissed</u> her, but briefly, half in anger [BNC].

2. the verbs which have a peripheral meaning of touch in their semantic structure. They represent one or more optional signs of the frame "TOUCH". These optional signs are common for both the frame "TOUCH" and the frames closely-related to it. For example:

He sat down and <u>buried</u> his face in his hands [BNC].

3. the verbs of other lexico-semantic groups which have no meaning of touch on the system level, but they get this meaning on the functional level. For example:

... she <u>wound</u> her fingers around the cup of coffee, ... [BNC].

In consideration of all above said the frame "TOUCH" is a unifying structure of knowledge about the situation of touch, it gives reasons for the similarity of lexical meanings of verbs, which represent the concept "TOUCH". The ability of the frame to restructure provides opportunities to model various situations of touch.



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