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ANALYSIS OF THE SEMANTIC FIELD OF THE ADJECTIVES COLD – ХОЛОДНЫЙ AND HOT – ГОРЯЧИЙ IN THE ENGLISH AND RUSSIAN LANGUAGES

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Abstract. The article deals with analysis of the semantic field of English adjectives denoting the temperature characteristics "hot" and "cold" and the Russian equivalents "*горячий"* and *"холодный.*" The aim of the article is to determine the interdependence of lexical-semantic variants of adjectives denoting temperature in the English and Russian languages. To achieve this goal, it is necessary to determine the composition and internal structure of the lexical-semantic group of adjectives with nuclear semantic features *"cold – холодный"* and *"hot – горячий".*

Keywords: Semantic Field, nuclear, lexical-semantic variant, temperature.

İNGİLİS VƏ RUS DİLLƏRİNDƏ COLD– ХОЛОДНЫЙ VƏ HOT – ГОРЯЧИЙ SİFƏTLƏRİNİN SEMANTİK SAHƏSİNİN TƏHLİLİ

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Xülasə. Məqalədə ingilis və rus dillərində temperatur bildirən cold- холодный, hot- горячий sifətlərinin semantik sahəsinin təhlilindən bəhs edilir. Məqalənin məqsədi ingilis və rus dillərində temperatur bildirən sifətlərin leksik-semantik variantlarının qarşılıqlı asılılığını müəyyən etməkdir. Bu məqsədə çatmaq üçün cold- холодный, hot- горячий sifətlərinin nüvə, semantik xüsusiyyətlərini və leksik-semantik qrupunun tərkibini və daxili quruluşu araşdırılmıışdır.
Açar sözlər: Semantik sahə, nüvə, leksik-sematik variant, temperatur.

АНАЛИЗ СЕМАНТИЧЕСКОГО ПОЛЯ ПРИЛАГАТЕЛЬНЫХ COLD – ХОЛОДНЫЙ И HOT – ГОРЯЧИЙ В АНГЛИЙСКОМ И РУССКОМ ЯЗЫКАХ

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Резюме. В статье рассматривается анализ семантического поля прилагательных cold – холодный, hot - горячий, обозначающих температуру в английском и русском языках. Целью статьи является выявление взаимосвязи лексико-семантических вариантов прилагательных, обозначающих температуру в английском и русском языках. Для достижения этой цели необходимо определить ядерные, семантические свойства прилагательных cold - холодный, hot - горячий, а также состав и внутреннее строение их лексико – семантической группы.
Ключевые слова: Семантическое поле, ядро, лексико-сематический вариант, температура.

1. Introduction

One of the main directions of modern linguistics is the increased interest in the study of the semantic systems of different languages and the features of the lexical-semantic representation of various fragments of reality as well as in the problem of the involuntary nature of a linguistic sign. In this area, special attention is paid to the study of semantic fields. The

concept of a semantic field was first introduced in 1924 by the German linguist G. Ipsen, who defined it as "a set of words that have a common meaning" [10, p.22]. Another linguist, J. Trier, introduced the concepts of "lexical field" and "conceptual field" and tried to distinguish between them, but he did not take into account the phenomenon of polysemy [10, p.23]. The semantic field has been studied by several foreign researchers from the point of view of the word-formation content of a class of words [3], intersecting groups and words of different parts of speech [5], semantic-syntactic features of individual words and field theory [7].

Furthermore, the study of semantic fields is inextricably linked with the determination of all the features of this aspect of linguistics. A semantic field (SF) is "an ordered set of units with a common meaning", grouped around a nuclear sememe. It is noteworthy that the composition of the SP can be represented by units that belong to different parts of speech.

Such an unstudied set is the lexical and phraseological semantic opposition *cold – hot,* which indicates the importance of the research undertaken and consists of the theoretical understanding and scientific description of this binary linguistic opposition. It is in particular associated with the construction of a semantic field and the identification of various components in it. The research material is lexical and phraseological units with "temperature" semantics *(cold, hot, warm, frosty, torrid, fervour, frost, warmth, heat, warmer, freezing, hot, etc.),* extracted by the method of continuous sampling from explanatory dictionaries of modern literary language as well as lexigraphic sources in the form of lexicographical editions of the Cambridge Dictionary, Collins English Dictionary, Longman Dictionary of Contemporary English, Macmillan Dictionary, and Oxford Learner's Dictionaries.

2. Primary Research and Construction of the Semantic Field *Cold – Hot*

There are various definitions of a semantic field. We take the following definition as our basis: "A semantic field is a vast association of words that are related in meaning, conditioning and predetermining the meanings of each other. The semantic field reflects connections and dependencies between elements of reality – objects, processes, properties – and therefore naturally includes the vocabulary of significant parts of speech such as nouns, adjectives and verbs [9, p.25]. For example: SF *горячий – жаркий, знойный, вспыльчивый, пекло, огонь* / *hot, blazing, boiling, blistering, burning* and so on.

Figure 1 and 2 shows an example of a semantic field, the core of which is the lexeme temperature; the words *hot* and *cold* belong to the centre, while the periphery is a group of synonymous lexemes: *жаркий, огненный, пламенный* / *hot, blistering, burning, etc.*, which is opposed in meaning to the group of lexemes *ледяной, мёрзлый, хладный / icy, frozen, cold, etc.*

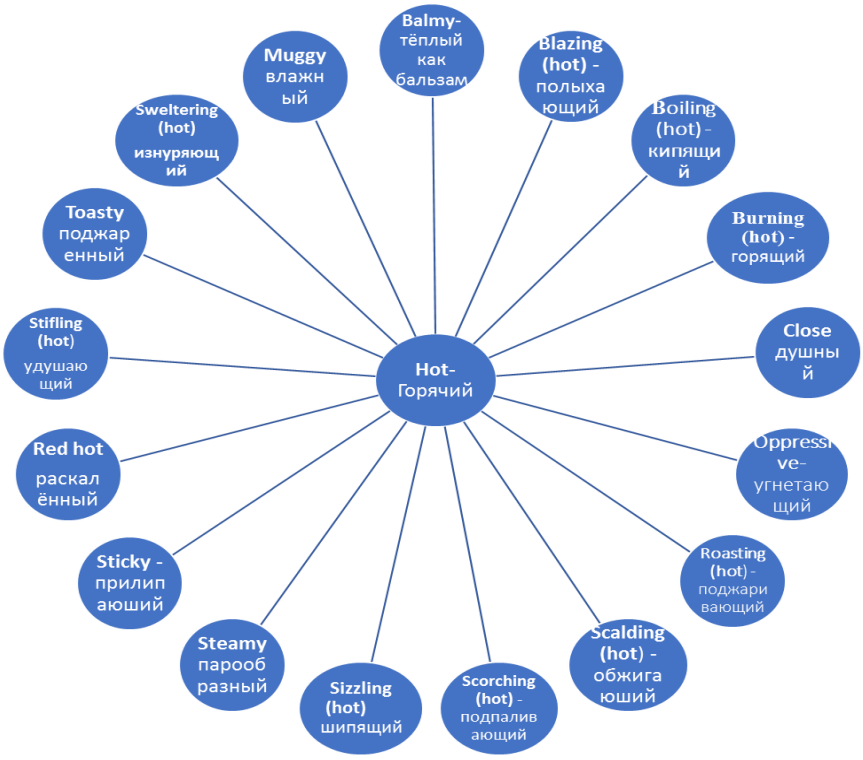

Figure 1. Semantic field of temperature

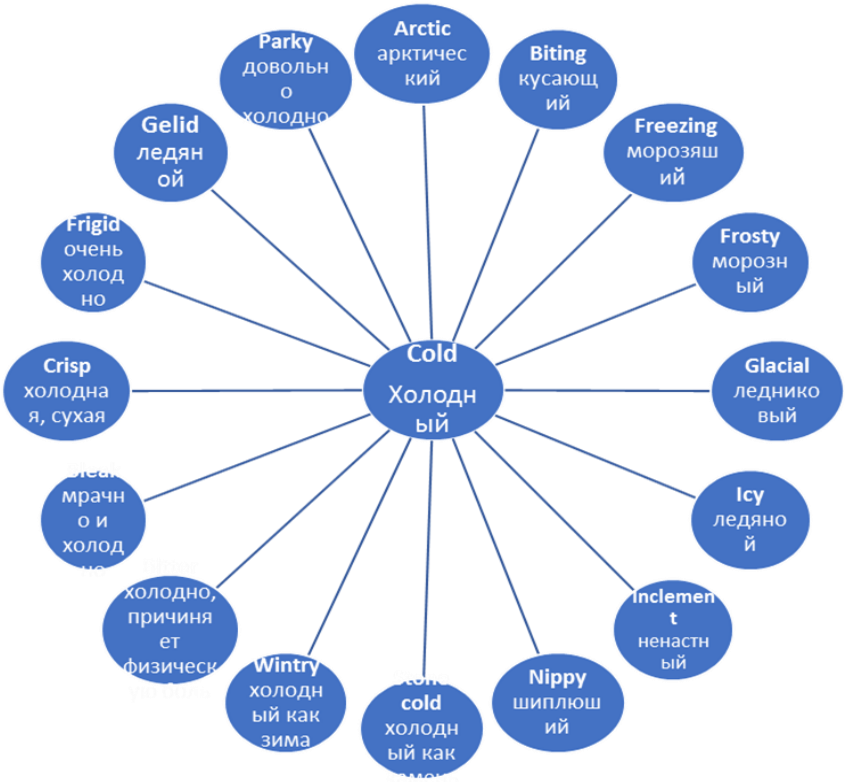

Figure 2. Semantic field of temperature

We are currently defining the field under study, *cold – hot* / *холодный — горячий,* very broadly. Unresolved questions remain regarding the boundaries of the field under study, its content (components, core, periphery) and various dynamic processes that could take place in this semantic set.

The words *cold – холодный* and *hot – горяций* function in speech in different meanings: direct, reflecting temperature characteristics and signs, cf.: *cold water, hot water* / *холодная вода*, *горячая вода* and a number of figurative meanings, which are reflected, for example, in combinations such as *cold heart, hot heart / холодное сердце / горячее сердце.*

The words *cold – hot* / *холодный — горячий* can have either the same or differing compatibility depending on the content of denotations (denoted qualities) and the life of the word in the language.

For example, you can say *cold reception* / *холодный приём* and *hot reception* / *горячий приём,* while for example a *calculation* can only be *cold* and never *hot* or *warm.* If we turn to negative temperatures in a figurative sense, then the *calculation* can be neither *glacial – студёным*, nor *cold – прохладным*, nor *ледяным – icy.*

In this article, we consider only a fragment of this field, which consists of groups of words included in opposite semantic blocks with a direct nominative meaning. These groups of words are associated with the designation of various temperature characteristics (phenomena).

The definitions from the "Dictionary of the Russian Language" edited by A. P. Evgenieva presented below are the basic lexical-semantic variants of the words being studied [8]. Based on the basic variants, various figurative meanings are developed (the relation to temperature semantics is marked with underlining):

Cold- холодный

Having a low temperature, with low or relatively low temperature (air, water, etc.). With strong, persistent cold weather. Does not emit heat or provides little heat. About light, shine, etc.

Hot - горячий

Having a high temperature; *сильно нагретый* – very heated. *Жаркий, знойный* – hot, sultry.

These words form an antonymic pair, which is characterised by semantic contrastive distribution in which the elements are found in identical environments (for example, *горячий чай, холодный чай – hot tea, ice tea*). When interchanged, these words act as distinguishers of meaning.

Temperature as a physical quantity characterises the degree of heating of something and represents a scale of variation in the temperature characteristic from cold to hot. The designation of temperature using language is somewhat subjective since a person gives a thermal

assessment of an object based on their personal characteristics of perception. Based on the semantic analysis of the LSV of adjectives, we compiled a scale of gradualness of the temperature feature, designated by the LSV of the units we studied. This graduality is defined as the degree of explication of any attribute or quality. The scale of graduality of a temperature characteristic represents the arrangement of LSV adjectives in a certain order, which corresponds to the increase in the thermal quality they denote.

Extremely low temperature is actualised by LSV adjectives, in the semantics of which the nuclear semantic feature *cold* is combined with the following semantic features that actualize the high intensity of a particular property: *very, extremely, so, completely*. This group includes LSV adjectives *arctic, biting, bitter, freezing, frigid, frosty, gelid, glacial, ice-cold, icy, perished, perishing, raw, stone-cold,* meaning *"very cold" (очень холодный).* Note that membership in this group is determined by the presence of semantic features, at least in the dictionary interpretations of the LSV of one word, objectifying the high intensity of temperature:

- *"очень – very", "чрезвычайно – extremely"* – in the semantics of LSV adjectives *arctic, freezing, frigid, frosty, ice-cold, icy, perished, perishing*;

- *"очень", "чрезвычайно," "так" – "very", "extremely", "so"* – in the semantics of the LSV adjective *biting*;

- *"чрезвычайно"* – in the semantics of the LSV adjective *ожесточенно – fircly;*

- *Очень* in the semantics of the LSV adjective *студенистый, ледяной, сырой; gelid, glacial, raw*;

- *"очень", "совсем" – "very", "completely"* in the semantics of the LSV adjective *холодный, как камень* (*stone-cold).*

The semantic feature *"cold"* objectifies the property of *"холодный"* and unites the LSV *bleak, chill(y), crisp, dank, draughty, fresh, inclement, nippy, parky, wintry*.

The LSV of adjectives with the nuclear semantic sign "cold" form a three-step scale of gradation, which demonstrates an increase in temperature:

"less cold" – "менее холодный"
(*mild*)
↑
"Cold" – "холодный"
(*Bleak, chill(y), crisp, dank, draughty, fresh, inclement, nippy, parky, wintry*)
↑
"Very cold" – "очень холодный"
(*Arctic, biting, bitter, freezing, frigid, frosty, gelid, glacial, ice-cold, icy, perished, perishing, raw, stone-cold*)

LSV of adjectives with the meanings *"warm" / "hot" – "теплый" / "горячий"* form a four-stage gradualism scale, where the temperature attribute of which increases according to the scheme: "слегка теплый" → "теплый" → "горячий" → "очень горячий" – "slightly warm" → "warm" → "hot" → "very hot".

The high intensity of the temperature feature *"hot" – "горячий"* is updated by the combination of the nuclear semantic feature *"hot" – "горячий"* with the semantic features *"very", "extremely", "intensely", "so", "too" – "очень", "чрезвычайно", "интенсивно", "так", "слишком"* in the semantics of LSV language units *blazing (hot), blistering, boiling (hot), burning (hot), piping hot, red-hot, roasting (hot), scalding (hot), scorching (hot), sizzling (hot), stifling (hot), sweltering (hot), torrid, tropical, white-hot.*

Semantic features "*warm" – "тёплый"* and *"hot" – "горячий"* objectify different degrees of warmth, as evidenced by the heterogeneous composition of semantic features present in the LSV meaning of the adjectives considered. The following diagram demonstrates the gradation scale of changes in the amount of heat indicated by LSV:

'very hot' / 'очень горячий'
(*blazing (hot), blistering, boiling (hot), burning (hot), piping hot, red-hot, roasting (hot), scalding (hot), scorching (hot), sizzling (hot), stifling (hot), sweltering (hot), torrid, tropical, white-hot*)
↑
"hot" – "горячий"
(*oppressive, steamy, sticky, sultry*)
↑
"warm" – "тёплый"
(*balmy, close, cosy, fuggy, muggy, snug, toasty*)
↑
"slightly warm" – "слегка тёплый"
(*lukewarm, tepid*)

3. Lexical-semantic field of adjectives with semantic features warm / hot

Temperature as a meteorological phenomenon is an integral characteristic of air. The temperature characteristics of air are denoted by the following LSV adjectives: *balmy, blazing (hot), blistering, boiling (hot), close, muggy, oppressive, roasting (hot), scorching (hot), sizzling (hot), steamy, sticky, stifling (hot), sultry, sweltering (hot), torrid, tropical.* The study of the features of the representation of the studied feature by LSV data allows us to conclude that the temperature feature has a multidimensional structure. The component composition of the interpretations of the considered LSVs indicates the ambiguity of the expression of the concept of a temperature characteristic as a meteorological phenomenon due to the fact that,

in addition to indicating nuclear semantic features, the definitions of LSV adjectives contain interpretation components that are correlated with other semantic features. Relevant features present in the mental representations of speakers and reflected in the semantics of LSV are the degree of manifestation of the temperature characteristic, its association with signs of another sensory modality and the evaluative attitude of the recipient to the temperature characteristic.

Semantic analysis of the lexical-semantic variant under consideration allowed us to identify the following groups of synonyms: 1) *sultry* and *sticky*, 2) *blistering, boiling (hot), scorching (hot)* and *sizzling (hot).* Despite the similarities, these lexico-semantic variants of adjectives differ in their compatibility and characteristics of motivation. Representation of the above-mentioned LSV of the adjectives of the air attribute "high temperature" becomes possible when they are used with certain lexical units. The use of the analysed adjectives in combination with the following groups of words allows us to update the semantic features of "warm" / "hot", characteristic of air as a meteorological phenomenon:

Table 1. *Syntagmatic characteristics of LSV adjectives with values of warm / hot when representing the temperature characteristic of air as a meteorological phenomenon*

Lexical-semantic variant of adjectives:	**Lexical compatibility with lexical units that denote:**
balmy, close, muggy, oppressive, sticky, sultry, steamy, sweltering (hot), tropical	any time intervals
blazing (hot), blistering, boiling (hot), roasting (hot), scorching (hot), sizzling (hot), stifling (hot), torrid	daytime intervals
balmy close, muggy, oppressive, steamy, sultry, sticky, boiling (hot), stifling (hot), sweltering (hot), tropical	weather conditions
balmy, steamy, tropical	climate
balmy, muggy, close, oppressive, steamy, sticky, sultry, torrid, tropical	air
balmy, sticky, sultry, tropical, scorching (hot)	wind
balmy, steamy, sultry, blazing (hot), scorching (hot), sweltering (hot), torrid, tropical	territorial objects (geographical objects, natural landscapes, urban and rural objects)
balmy, oppressive	warmth
balmy, muggy, oppressive, steamy, sticky, sultry, blazing (hot), blistering, boiling (hot), scorching (hot), stifling (hot), sweltering (hot), torrid, tropical	heat
stifling (hot)	humidity
balmy, sultry, blazing (hot), blistering, scorching (hot), sizzling (hot), sweltering (hot), torrid, tropical	the sun and related objects
muggy, oppressive, boiling (hot), scorching (hot), sizzling (hot), sweltering (hot), tropical	temperature

Let us consider the features of the objectification of the temperature characteristic of air as a meteorological phenomenon of the LSV of each group as indicated in Table 2 below.

Use of the lexical-semantic variant of the adjectives *"balmy, close, muggy, oppressive, steamy, sticky, sultry, sweltering (hot), tropical"* in combination with lexical units of the first group (summer, summer time, this time of year, August, June, July, month, weeks, morning, noontide, afternoon, evening, day, night, darkness) allows us to say that the air is characterised by high temperature during a certain time interval. In data semantics, the lexical-semantic variant of the temperature attribute is closely related to such additional characteristics as humidity, difficulty breathing, windlessness and the presence/absence of an emotional-evaluative component:

Table 2. Representation of the temperature characteristic of hot – горячий / cold – холодный in relation to time

LSV	***steamy***	***sticky***	***sultry***	***mild***	***bleak***	***chill***	***chilly***	***crisp***	***dank***	***fresh***	***inclement***	***nippy***	***parky***	***wintry***
Manifestation degree of temp. sign "hot"	*hot – горячий* (high manifestation degree)			*less cold прохладный* (low manifestation degree)	*cold – холодный* (high manifestation degree)									
Example lexical unit for time interval	night, afternoonsummer	day, night, evening, summer, summer time	day, night, morning, afternoon, evening, summer, August	day, morning	day, winter, midwinter	day, morning	day, month	day, morning	day, afternoon	day, night, morning,	night, evening	morning	winter	day, night, morning, afternoon, month
Type of moti	semantic	semantic	–	–	–	–	lexical and stru	–	–	–	lexical and stru	semantic	–	lexical and

vation							ctural				ctural			structural
Internal form (word) type	lively, unlexicalised	lively, unlexicalised	dead	dead	dead	dead	dead	dead	dead	dead	dead	lively, unlexicalised	dead	lively, unlexicalised
Motivational feature	steamy steam hot like steam	sicky sticking hot as if sticking	–	–	–	–	chilly chill cold like cold	–	–	–	incleement incleement cold not soft	nippy nip cold as if pinching/nipping	–	wintry winter cold like winter
Nomination feature	*characterised by high temp.*				*characterised by low temperature*									
Expressed evaluative attitude associated with temp characteristic of object	–	unpleasant	unpleasant	pleasant	unpleasant	unpleasant	unpleasant	pleasant	unpleasant	–	unpleasant	–	–	–
Expressed additional *	wet**	wet***	wet	–	–	–	–	dry, bright	damp	characterised by air movement	damp	****	–	characteristic of winter

** (i.e., in addition to temp. signs and incl. inter- or intramodal transfer in notes below.*

*** associations with visual perception of steam (intermodal transfer: vision > tactility).*

**** associations with sticky sensation caused by heat (intermodal transfer: tactility > tactility).*

***** associations with tingling sensation (intramodal transfer: tactility > tactility).*

Note that the nominative feature the lexico-semantic variant of the adjectives *balmy* and *muggy* can be defined as "characterised by low temperature". Their compatibility with lexical units denoting any time intervals is determined ontologically since the attribute *тёплый – warm* can be characteristic of air temperature at any time of the day.

The lexical-semantic variant of the adjective *balmy* has a living internal form and semantic motivation. The formation of semantics followed the path of synesthetic transfers: intramodal modes of perception. Derived from the noun *balm*, the lexical-semantic variant inherits the semantic feature "pleasant" from the motivator. The attribute *"pleasantly warm"* is most often used to describe the air temperature during the day. It can be assumed that the air is not very hot, as if it envelops the whole body in warmth, creating the effect of a pleasant balm on the skin (by analogy with the semantics of a cognate noun):

In fact they were on a bridge hanging innocently above two feet of pleasant, placid water, that on this ***balmy summer*** *afternoon looked inviting enough to jump into anyway* [2].

The lexical-semantic variant of the adjective muggy has a dead internal form. In the semantics of the Lexico-semantic variant, there is the feature "wet". Most often, the lexical-semantic variant of the adjective is combined with the lexical unit "night". This fact is due to the peculiarity of the air temperature at night when there is usually high humidity and dew. In general, the features "warm" and "moist", objectified by the lexical-semantic variant of the adjective, are unpleasant for the subject:

A cloudy, but flat calm night, with a steady or rising water temperature is promising too, especially if the ***night is muggy*** [4].

The nominative feature, the lexical-semantic variant of the adjectives *steamy, sticky* and *sultry,* can be defined as "characterised by high temperature." Syntagmatic parameters are presented as follows: the lexical-semantic variant *steamy* is combined with the lexical units "night", "afternoons" and "summer"; Lexico-semantic variant *sticky* – with lexical units "day", "night", "evening", "summer" and "summertime"; the lexical-semantic variant of *sultry* is with the lexical units "day", "afternoon", "summer", "August", "night", "evening" and "morning".

The nominative feature, the lexical-semantic variant of the adjectives *sweltering (hot)* and *tropical,* can be defined as "characterised by a very high temperature". Syntagmatic parameters are presented as follows: the lexical-semantic variant *sweltering (hot)* is combined with the lexical units "day", "afternoon" and "summer" while the lexical-semantic variant of *tropical* is with the lexical unit "evening".

The lexical-semantic variant of the adjective *sweltering (hot)* has a living internal form and lexical motivation. A very high temperature, encoded in the meaning lexico-semantic variant, causes a feeling of discomfort:

We sailed northward up the Minch on a sultry, ***sweltering day*** *over a most unpleasant ground swell* [1].

The lexico-semantic variant of the adjective *tropical* has a living internal form and lexical motivation. The lexical-semantic variant of the adjective is formed from the noun *tropics.* It is known that tropical weather is characterised by high air temperature and high humidity. In the semantics of the derived stem, the lexico-semantic variant of the adjective retains the features inherited from the motivator word *tropics,* i.e., very hot and humid.

Conclusion. The study of contexts above has made it possible to clearly outline the range of objects characterised with the help of the studied LSV adjectives, to determine the semantic groups of partner words described by the lexico-semantic version of the adjectives, i.e., to specify their semantic compatibility. In the course of our research, based on semantic compatibility, basic semantic classes were identified lexical unit of partners of adjectives, according to which subsets of LSV of adjectives, combined with the named semantic classes lexical unit, were determined. In the semantics of the LSV, certain semantic features predetermine the possibility of their use to characterise the temperature characteristic of certain objects.

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