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POLYSEMANICS AND FILTER IN SEMANTIC TAGGING SYSTEM

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Obscure is now more often used in its figurative sense (denoting something the true meaning of which is not understandable) than in its literal sense. The strange object looked obscure through the deep water.

The league lexeme Vague (vague, obscure, incomprehensible) expresses the idea of the blurred appearance of things that do not have a clear, obvious form. Vague in its physical application denotes smth. Which is lacking in distinct outlines. The vague shape of a building or a tree in the distance.

**Conclusion.** In conclusion, adjective lexemes express different connotative meanings based on certain speech conditions, the contractual relationship between the speaker and the listener. Connotative meaning is based on analogy, vowel extension, and the use of a lexeme in a figurative sense. Connotative meaning is a verbal meaning based on lexical meaning and is understood in relation to different speech situations. The context in which the connotative meaning is understood is complex. adjective e lexemes that express connotative meaning are complex in content, even if they are simple in structure. Content complexity arises on the basis of a variety of speech phenomena.

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**UDC: 81′1:81′37[=512.133]**

**POLYSEMANTICS AND FILTER IN SEMANTIC TAGGING SYSTEM**

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**Abstract:**

**Background.** Semantic markup is an issue that has been thoroughly studied by experts. If the first generation of language corpora was a collection of electronic texts, then a tool with a query-responsive interface was later formed into literal corporations with linguistic and extralinguistic markings. Linguistically marked corpuses were initially only morphological, then morphology-syntactic, and in recent years the perfect form of linguistic marking - the corpus with morphological, syntactic and semantic markings - has undergone a stage of development. The introduction of semantic markup into the case was initially based on theory, while semantic marking problems were explored. Yu.D. Apresyan, I.M. Boguslavskiy, B.L. Iomdin, E.V. Biryaltsev, A.M. Elizarov, N.G. Jiltsov, V.V. Ivanov, O.A. Nevzorova, V.D. Solovev, I.S. Kononenko, E.A. Sidorova, The research of E.I. Yakovchuk, E.V. Rakhilina, G.I. Kustova, O.N. Lyashevska, T.I. Reznikova, O.Yu. Shemanaeva, A.A. Kretov can be included in such works.
**Methods.** The article describes in detail the necessary tools for corpus semantic tagging, additional software tools, a filter that can distinguish poly semantics and homonymy. Also, in the process of semantic tagging are shown ways to develop specific principles of morphological and lexical homonymy, universal vocabulary, words that do not exist in dictionaries, fragmentation, letter-symbolic constructions. The methods of classification, description, comparison, modeling were used to cover the topic of the article.

**Results.** We did not come across any work on the principles of semantic marking of Uzbek language corpus. Lexical-semantic comment system in the corpus interface; there is a system of basic semantic categories used by the user that forms the basis of the search. These categories are the most important element of the corpus because the survey is done on that basis. The corpus's response to a user's request is linked by these characters. The Uzbek semantic markup can be used to create a set of tags and a corpus semantic search interface.

**Conclusion.** In conclusion, it is crystal-clear that they are based on the features of the Russian language, but we have concluded that on the basis of this experience it is possible to create a system of semantic tags specific to the Uzbek language.

**Keywords:** corpus linguistics, tagging, markup, semantic tag, national corpus, algorithm, taxonomy, dictionary, modeling, classification, nominative units, derivational characteristics, morphological tag, syntactic tag, semantic filter, universal vocabulary.

**Introduction.** Semantic tag - a set of comments, a special meaning, indicating that a word or phrase in the language corpus belongs to a particular semantic category or smaller semantic group (LSG, semantic field and gang). The semantic tags of the corpus include the specifics of the meaning of the word (s), the formation of a set of explanations related to the homonymy, synonymy of the word, categorization of the word, its thematic group, LSG, semantic field, derivational characteristics.

In semantic tagging, as in other markings, codes consisting of letters, numbers, or numbers only are used, even if they are not a single standard form. The first letter or number represents the general semantic meaning, and the next character represents a small semantic group that further specifies the meaning of the word. A semantic tag combines not only words but also many compounds into semantic groups, in which case compounds that express the same meaning in different combinations are encoded by a single character. Information indicating the number of words in an idiomatic unit (phrase) is also included in the tag. The semantic tag tackles problems such as the specialization of the meaning of the word in the corpus, homonymy, synonymy, division into semantic groups.

M.Y. Zagorulko, I.S. Kononenko, Y.A. Sodorova's article "System of semantic markup of the body of text in the boundary of the subject area" deals with the principles of semantic marking, the architecture of semantic marking of the text, the use of the marked body, filling in the dictionary of terms, analysis of semantic-syntactic hypotheses.

Y.D. Apresyan, I.M. Boguslavskiy, B.L. Iomdin's article "Syntactically and semantically annotated corpus of the Russian language: modern state and perspectives" provides a comparative analysis of existing semantically marked corpuses, showing commonalities and differences.

I.S. Kononenko, Y.A. Sidorova's article "System of semantic markup of the body of text as an instrument of interpretation of expert knowledge (on the material of text by catalysis)" reveals the ways and means of extracting information from semantically marked text, the possibility of the interface.

Y.V. Biryalsev, A.M. Yelizarov, N.G. Jilsov, V.V. Ivanov, O.A. Nevzorova, V.D. Solovyov's article "Model of semantic search in the collection of mathematical documents on the basis of ontology" describes the models of semantic collection, the advantages of modeling based on ontology.

**Materials and methods.** A great context is needed to distinguish poly semantics: the speaker and the listener do not perceive such poly semantics in speech; there is no need to emphasize the meaning. Next task is to "teach" artificial intelligence to "understand" such situations, at least to
create an algorithm for detecting structures with a high frequency of use. In fact, this is also the main function of semantic markup. If such a function is not enabled, the corpus will be no different from a conventional dictionary in electronic form. The corpus markup usually works by defining poly semantics based on how the unit is attached to the word “neighbor”. To create such an algorithm, a set of rules (all typical and rare cases) must be included in the linguistic supply database by the linguist. The following is an example of an ambiguity filtering algorithm. Defining a unit rank in a markup system differs depending on the word's ability to combine with an object / person name: light quality means "not heavy" when combined with an object name. Subsequent discharges of this unit are limited to taxonomies of non-subjects. One of its filters will look like this:

<table>
<thead>
<tr>
<th>Word</th>
<th>Context</th>
<th>The ultimate meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>light</td>
<td>+ common noun</td>
<td>Sem. = discharge “character-feature” taxonomic class: physical feature: weight</td>
</tr>
</tbody>
</table>

The word naked (yalang‘och) has two meanings. Compare:
Yalang‘och 1 - yalang‘och kishi (naked person)
Yalang‘och 2 – yalang‘och daraxt (naked tree)
Each meaning of unity is limited to the association of the subject with the taxonomic class. The semantic markup can take the following forms:

<table>
<thead>
<tr>
<th>Word</th>
<th>Context</th>
<th>The ultimate meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yalang‘och (naked)</td>
<td>+ personal noun</td>
<td>Sem. = discharge “character-feature” taxonomic class: physical state</td>
</tr>
<tr>
<td>Yalang‘och (naked)</td>
<td>+ place noun</td>
<td>Sem. = discharge “character-feature” taxonomic class: appearance</td>
</tr>
<tr>
<td>Yalang‘och (naked)</td>
<td>+ common noun</td>
<td>Sem. = discharge “character-feature” taxonomic class: physical feature</td>
</tr>
</tbody>
</table>

We analyze the word cold (sovuq) to prove our point. This unit has meanings such as cold wind (low temperature), cold color (invisible color), cold gaze (human psychological state). Semantic valence can be observed in the following contexts:

<table>
<thead>
<tr>
<th>Word</th>
<th>Context</th>
<th>The ultimate meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold</td>
<td>+ natural phenomena + time</td>
<td>Sem. = discharge “character-feature” taxonomic class: physical feature: temperature</td>
</tr>
<tr>
<td>Cold</td>
<td>+ color</td>
<td>Sem. = discharge “character-feature” taxonomic class: physical feature: color</td>
</tr>
<tr>
<td>Cold</td>
<td>+ mental sphere + mental sphere + human feature + human action and behavior</td>
<td>Sem. = discharge &quot;character-feature&quot; taxonomic class: human characteristic</td>
</tr>
</tbody>
</table>

As mentioned above, the article of T.I. Reznikova, M.V. Kopotev named “Linguistically Annotated Russian Corpuses (Review of Publicly Available Resources)” is devoted to the analysis of the linguistic tagging of the HANKO corpus, their possibilities and peculiarities. It is known that the level of markup of each corpus is different, as well as the level of semantic markup. Corpus is mainly morphological, if more perfectly developed, it will have a morphological, syntactic tag. Not all existing corpus have morphological, syntactic, and semantic markups. T.I. Reznikova, M.V. Kopotev fully analyze the linguistic markup of the listed corpora. Below we examine the information / analysis of the semantic markup of these corpora.

1. The Tubingen corpus has no semantic information.
2. The corpus of the newspaper has semantic tagging elements. Firstly, some words in the corpus texts are semantically annotated: words denoting person and animal are marked, and 60 semantic groups are separated. Another 10 semantic groups were distinguished, which included speech verbs, action verbs, and adjectives. Secondly, the lexical-semantic relationship between corpus units - synonymy is marked. The user can see the members of a particular synonymous series by context.

3. The semantic markup of HANKO was developed by a group led by A. Mustayoki; a list of semantic groups has been developed; the semantic markup is loaded into the base of the case. This semantic markup is based on morphological and syntactic tagging.

4. The semantic markup of NCRL is done automatically: one / several semantic tags are attached to each lemma and word combination; there is a semantic sign for words belonging to all categories, not limited to the scope of the category. However, it should be noted that a single lemma remains belonging to several semantic groups. All words are included in the semantic dictionary with their own semantic sign; the dictionary automatically responds based on the corpus query. Lexical homonymy is reflected in a single lemma: homonyms (as in the dictionary of homonyms) are not interpreted in a separate lemma.

In the NCRL system of semantic tags, each tag consists of 3 to 7 comments. These tags have their own name and function, depending on the position of the unit as a whole, the semantic field, the lexical-semantic group and the gang, the center, the circle. A.A. Kretov divides tags into constants, operator-classifiers. Let's study the system of semantic markup tags on the basis of an example: Sp t: constr building and structure (house, attic, bridge). In this system of tags, Sp is a constant and t: constr is a classifier.

Numerous studies have been conducted on the structure, characteristics, significance, linguistic corpus and capabilities of the Russian language national corpus. The study of the experience of the Russian National Corpus is based on practical work with it, the study of research. In such studies, the semantic corpus of the corpus is described in detail, showing the advantages and disadvantages. The above-mentioned studies are important in that they provide an overview of the semantic layout of the Russian National Corpus, the Chuvash Corpus, the Kalmyk National Corpus, and the Bashkir Corpus.

**Results and discussions.** In the world experience, three types of semantic markup implementation are distinguished. Semantic markup includes the following tasks:

1) Defining the meanings of a polysemous word. In doing so, the expert relies on a dictionary in which all the meanings of polysemous words are highlighted;

2) attach a tag about the lexeme's affiliation to the semantic group. It relies on generally accepted classification principles;

3) reflect the lexical-semantic relationship between words in the text. In this case, a comment is attached to each lemma, which allows to express the lexical-semantic relationship.

The authors of the article point out that there is no generally accepted semantic classification for corpus tagging as the most basic problem in creating a tagging program: tagging, markup. The Russian morphological analyzer is perfectly designed and can be used equally for all corpora. This analyzer is based on a single source - A. Azaliznyak's grammatical dictionary. It can be said that there is no single such perfectly developed theoretical basis on which syntactic and semantic markup can be based. Just as there are different approaches to interpreting the laws of syntax, there are also different views on the classification of semantic fields and groups. This suggests that it is not possible to develop a corpus markup perfectly, as there are still unresolved problems in linguistics. Hence, a set of tags, a single perfect classification for the development of a tagging linguistic supply - a theoretical basis is needed.

Creating tools for automatic processing of language resources is a very labor-intensive process. Therefore, their automation is greatly facilitated by the fact that the creation of the initial database, and its completion is carried out using annotated (marked) cases. For many languages of the world, semantically framed corpuses have already been created that can serve as the basic support of such tools (e.g., automatic translation software, morphs analysis software). Scientists
note that the introduction of the automation process will help to overcome the obstacles that may arise in the creation of many linguistic resources in the future. It is necessary to emphasize the importance of terminological improvement of special dictionaries and the creation of semantic-syntactic models for extracting the necessary information from the text.

The first line is sufficiently researched, but the compound terms are technologically interpreted. In the second direction, the main ideas are given; principles have been developed, proposals have been put forward.

According to M.Y. Zagorulko, in the process of replenishing the lexical base of the corpus, special attention should be paid to the following:

1. Morphological and lexical homonymy. If the corpus is not morphologically and syntactically marked, all homonyms in the lexical base must be filled with a semantic tag, each of the homonyms must be marked. In this case, each of the homo forms is marked separately, as in the dictionary of homonyms. Only in the case of homonymy, how does the computer "understand" my homonymy?

2. Universal vocabulary, which is a part of compound words (compound terms). Such units are tagged separately as a word in a common word or term: the place of the unit in the language is determined.

3. A word that does not exist in dictionaries. Any text fragment can contain a word that is not present in the dictionary (newly entered or not mastered). What should be the basis for tagging such a unit? The description of its semantic features is not reflected in the dictionary. Such a unit should be specifically studied by the author (e.g., belonging to a group of words, morphological features, etc.) and included in the corpus dictionary database with a comment.

4. Piece fragment. Such a section is treated as a syntactic group, provided with a set of tags based on a similar syntactic template.

5. Literary-symbolic construction. Such units are not a dictionary element, but a term of a particular subject area; enters a set of words and enters into a syntactic and semantic relationship. It is therefore advisable that they are also interpreted with special tags.

V.V. Kukanova answers to the question: “The description of language can be approached from two sides: form to content and from content to form” with the words of S. Gindin in her article “Why do we need semantic markup?” The first approach is to describe as accurately and completely as possible all the existing meanings of a particular language unit, the context in which it is used. The second approach, on the other hand, aims to bring together all the forms that can express the same content into one point: it brings together a set of meanings. Both approaches are equally important for linguistics and language teaching. In addition, grammar and vocabulary require both different approaches as the user / reader learns the native language / foreign language. If an unfamiliar word or construction occurs, a dictionary / grammar is used; if a person has to write or speak about something, then he looks for a word / expression: he knows what he means, he feels it, but he cannot find the right word / grammatical form”. Indeed, semantic markup is crucial for the study of language lexicon: the researcher / user / reader’s ability to combine words opens up a wide range of ways to observe syntactic construction. For example, there are some adjectives that are only associated with certain subjects. Creating such queries in the interface indicates the valence of the word through an array of examples.

Experts distinguish two types of semantic annotation: facet and tree method. Typically, both methods are used simultaneously in corpus semantic markup. A word can express more than one meaning, so classification by the tree method does not always give the correct result, the facet method is convenient in describing polysemous words. For example, the word satan has the following meanings depending on the context:

ШАЙТОН I [Satan, devil] 1 religion An evil spirit or chief of evil spirits who leads people astray from the path of religion, leading them to sin, crime, depravity; the devil. Эй узуу шох, бу үйлдән кайт, шайтон вавасасыга учна, кейин пушаймон бўлиб ёрмаБолтин бешик”(Golden cradle). Бойна ҳам шайтон үйлданд учран. К. Yashin, “Ҳамз”(Khamza). Ибодат қилмаслик умуман гуноҳ эмас, лекин ибодат қилмаган қиши, шайтоннинг гапиға қириб қилмаган учун,
“Ёруғлик” (heartedness). «Шайтони» қўзғамоқ, жини тутмоқ (To provoke the devil To provoke the “devil”, to demonize).

I. Rakhim (“satanicity”) is fast and resilient; so characteristic.

linguistic supply for stable horses in the computer “understand” the compound units and “answer” the query? Several solutions of semantic meanings, and the third - in the figurative sense there are compound (free and stable) units. Suppose all cases, the set of semantic tags this experience it is possible to create a system of semantic tags specific to the Uzbek language. In search interface. True, they are based on the features of the Russian language, but on the basis of character they belong.

It is obvious that in the explanatory dictionary of the Uzbek language the word satan has three meanings, and the third - in the figurative sense there are compound (free and stable) units. Suppose that the differentiation of polysemous words is done automatically using a filter, but how does the computer “understand” the compound units and “answer” the query? Several solutions of semantic tagging of such units can be proposed. In other words, it is necessary to develop a separate linguistic supply for stable horses in the sense of composition, well-known and related subjects.

If a lexical unit has multiple meanings depending on the context, it is included in the desired group according to its use in the contexts; those tags also belong to the same set and are separated from other tags by semicolons. The first comment is the main, and the comment after the semicolon is the meaning in the context. Marking is done in both word order and alphabetically. The first comment is the main, and the comment after the semicolon is a system of basic semantic categories used by the user that forms the basis of the search. This set of characters can be used to create a set of Uzbek semantic markup tags and a corpus semantic search interface. True, they are based on the features of the Russian language, but on the basis of this experience it is possible to create a system of semantic tags specific to the Uzbek language. In all cases, the set of semantic tags is written in a generally accepted form - in English.

The semantic markup system consists of discharge, lexical-semantic characteristics and derivational description. Lexical-semantic tags are grouped by taxonomy, mereology, topology, causation, evaluation fields. However, in order to implement semantic markup in the corpus, it will need a base on which to base it; these databases will be available in the form of various linguistic
supplies, dictionaries, specially designed systems. The semantic markup system includes several explanations related to word formation, such as morpho-semantic word formation features, which category the construction base belongs to, lexical-semantic (taxonomic) type of word formation, morphological type of word formation.

**Conclusion.** Thus, the necessary tools for the semantic markup of the corpus are a dictionary (1), which reflects the lexicon of a particular language, a semantic dictionary that can fully explain the lexicon of the language (2), a linguistic model for the implementation of semantic tagging - a set of rules (3), semantic tagging system (4), additional software tool: filter (5), etc., which can distinguish poly semantics and homonymy. Morphological and lexical homonymy in the process of semantic tagging; universal vocabulary, which is a part of compound words (compound terms); a word that does not exist in dictionaries; fragment; it is necessary to develop specific principles of marking of literal-symbolic constructions, as these units have a separate character in each language.

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**NATIONAL-SPECIFIC AND UNIVERSAL MEANS OF EXPRESSING THE CONCEPTS "WINTER" AND "SUMMER" IN THE RUSSIAN AND UZBEK LANGUAGE PICTURES OF THE WORLD**

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**Abstract:**

**Background.** In this article, Russian will be the source language, and Uzbek will be the language of comparison. Because, despite the structural differences between the Russian and Uzbek languages, our countries have a historical experience of social, cultural, and of course, linguistic interaction.

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