

THE ROLE OF LEXICAL NETWORKS IN THE STUDYING FOREIGN  
LANGUAGE WITH COMPUTER LINGUISTICS

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Ruziqulov Fazliddin

*Scientific director:*

Botirova Gulsanam

*student of Samarkand State Institute of Foreign Languages.*

**Abstract:** *Learning a foreign language is a difficult and important process. It is not always possible to build the correct phrase or sentence, from the point of view of lexical compatibility. Therefore, the article is devoted to the consideration of one of the main problems of lexical networks which is the compatibility of lexemes in a particular system. The study of this issue will bring us closer to understanding what great importance lexical networks have on the methods of teaching a foreign language and computational linguistics.*

**Keywords:** *linguistics, vocabulary, semantics, word, lexical network, teaching, English, association, compatibility, corpus linguistics*

Before proceeding to the subject of this scientific article - lexical networks that are built from a chain of lexemes, it is important to remember about dictionaries. Two types of dictionaries can be distinguished: those that reveal the lexical meaning of a word, its connotations; and those that help us express our thoughts in a foreign language. At the present stage of development of linguistics, the study of dictionaries of the second group becomes in demand. But the creation of such dictionaries requires huge resources: intellectual, temporary, financial. The creation of such large-scale platforms should be supported by the state, which should be interested in promoting the language and culture of its country. To use a dictionary of this type in learning a foreign language, it must contain all the functional connections of the lexeme and complete information about it, which will allow you to turn your thoughts into a complete and coherent statement.

For example, in a dictionary entry for the lexical unit "to work", in addition to the definition, it is necessary to indicate the connections that this word enters into with other lexemes: who works, where, how much, why. There should be a connection with the nouns "employee" and "employer", as well as "place of work", "money", etc. This is nothing but a lexical network.

This phenomenon can be called the "associative series" of a lexical unit. This phenomenon vividly shows how the words of a particular language are interconnected in our head. From bilingual, monolingual, explanatory, electronic dictionaries, we cannot get a complete picture of the compatibility of lexical units. Therefore, in foreign language



lessons, students are used to translating word by word in the hope of getting the correct meaning of the sentence.

As for ordinary dictionaries, they often provide meager and far from complete information about the compatibility of lexical units. Therefore, there is a great temptation for people who study languages to simply translate word by word and hope that the result will be the same thought that he has projected in his mind. But it doesn't work that way, everything is much more complicated.

There is a phenomenon of lexical compatibility - collocations, which cannot be translated literally from one language to another. What is a collocation? Let us turn to the definition of A.N. Baranova and D.O. Dobrovolsky. They wrote that "collocation is weakly idiomatic phraseological units mainly with the structure of a phrase, in which the semantically main component (base) is used in its direct meaning, and compatibility with an auxiliary component (collocator) can be specified in terms of a semantic class, but the choice of a specific word is predetermined. [2, p. 73].

In Muller's English-Russian Dictionary, the adjective "heavy" is revealed in 22 meanings [4, p. 382]. It will be very difficult for a person who is at the initial stage of learning a foreign language to understand which translation of a word into Russian should be used in this context, because the explanation of the links between collocations is minimized. As for school dictionaries, as a rule, they usually give only one definition, based on which we cannot get a complete picture of the lexical meaning. This is where the main problem in translation comes from – polysemy. This problem is especially pronounced in English, where one word can include a dozen or more shades of meaning. Proceeding from this, it is important to competently and tightly build the study of word compatibility and its semantic field, therefore, the creation of a single thesaurus dictionary, where all functional relationships between words will be described in detail and clearly, will facilitate and expand work with the vocabulary of a foreign language.

Synonyms and antonyms are the simplest lexical functions. They characterize both paradigmatic and syntagmatic connections. Paradigmatic relations reflect the semantic choice available at a certain stage of sentence construction. For example, I will have a glass of: beer, wine, water, lemonade. As a rule, paradigmatic relations include words belonging to the same lexico-semantic group, for example: We bought some (knives, forks, spoons). The dominant of this LSG will be the word "cutlery".

Let's take a closer look at syntagmatic connections. Syntagmatic connections are relationships in which units of speech occur sequentially or in parallel, interacting with each other, creating the meaning of the statement, which must be conveyed in the process of communication [2, p. 230].

Consistency and compatibility are the main components of syntagmatic relations. Moreover, syntagmatic relationships are often governed by strict rules such as spelling and grammar.

So, for example, letters in a word have a syntagmatic relationship with each other, just like words in a sentence or objects in a picture. Therefore, in order to understand and speak a foreign language, it is important to correctly build the process of forming

syntagmatic relations. In the modern world, more and more people are talking about artificial intelligence. There are a huge number of resources: information search, online translators, voice search. But they are built on paradigmatic relationships. When a platform is developed that will describe all the lexical functions necessary to correctly convey the meaning of the statement, then we will be able to create an artificial intelligence that will be able to communicate at the human level. In addition, we will come closer to understanding exactly how words are stored in our subconscious.

According to Saussure, syntagmatic relations are the most important type of connection between units in a sign system, because they build up linearly. In oral or written speech, words follow one after another. Since the language is linear, it forms a chain by which one unit is connected to the next [5, p. 35-37]. An example of this is the fact that in English word order determines meaning, because the position of the word in the chain of meanings is conducive to correct understanding. English word order has a special structure: subject-verb-object.

Combinations or relationships formed by a position in a chain, such as when a word is in a sentence, are called syntagmas. Examples of syntagmas can be any phrases or sentences that enter into a linear relationship between two or more units: It is too small to fit into this box. Words within a syntagma acquire meaning only because they are opposed to what was before and after them.

Syntagmatic relations are most important in written and spoken language, in discourse where the ideas of time, linearity and syntactic meaning are important. There are other types of relations that exist outside of discourse [1, p. 176].

The idea of associative groups and connections suggests that words in our memory are connected in exactly the same way as lexical networks in the field of computational linguistics. Therefore, it is important to increase research in the field of studying lexical networks and their application in the development of artificial intelligence and foreign language teaching methods. Just when a person understands exactly how the lexical web is built in his subconscious, he will be able to teach to think and think a machine that, at the moment, is only capable of performing a given algorithm of actions.

Associative relations are found only in the head and not in the structure of the language itself, while syntagmatic relations are a product of the language structure. Syntagmatic relations are important because they structure and order the semantic system of the language. Associative relations are important because they violate the patterns established in strictly grammatical, linear - syntagmatic - relations, and allow metaphorical expressions.

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