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THE ROLE OF THE TERMINOLOGISATION IN THE FORMATION OF A TECHNICAL TERM

The presented article reveals the features of the process of terminology, as a result of which linguistic units transfer into the terminological system. Since the term performs a special function, the author examines it in structural and substantive terms.

Terminology, a fairly independent system in functional and structural terms, is closely related to the literary language in many aspects, and primarily semantically. Emerging on the basis of natural means of communication, the language of science cannot completely free itself from the past and retains traces of the original experience in its deep layers. The polyfunctionality of lexical units, the ability to express several meanings at once with the same word, serves as the determining factor underlying the terminological nomination.

One of the active ways of emergence of terms is the semantic development of a commonly used word, or terminologisation.

The study of the process of terminologisation of commonly used vocabulary, semantic analysis of terms in various sublanguages of technology is relevant, as it makes it possible to establish meaningful differences between a term and a commonly used word.

The object of this analysis is units that function in the English language as commonly used words.

In the process of analysis, the author turned primarily to texts, to the sphere of functioning since it is there that the meaning of linguistic units originates, it is texts that demonstrate the situations with which their use is associated.

The problem of terminologisation of commonly used vocabulary determines the choice of a functional-semantic approach, the use of new techniques and research methods, primarily the analysis of deep processes occurring in the semantic structure of a word. In this case, it is important to take into account a complex of different features since the formation of terminological meaning is a complex process that affects not only semantics but also the systemic connections of a lexical unit, its paradigmatic and syntagmatic properties, and word-formation relations.

The study of the process of terminologisation allows us to identify general intralingual patterns in the formation of terminological meaning, the formation of English terminological systems and opens up prospects for further study of technical terminology.

Key words: terminology, technical term, terminologisation, metaphor, metonymy.

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РОЛЬ ТЕРМІНОЛОГІЗАЦІЇ У ФОРМУВАННІ ТЕХНІЧНОГО ТЕРМІНУ

У поданій статті розкриваються особливості процесу термінологізації, внаслідок якого мовні одиниці переходять у терміносистему. Оскільки термін виконує особливу функцію, автор розглядає їх у структурному та змістовному плані.

Термінологія, система досить самостійна у функціональному та структурному плані, тісно пов'язана з літературною мовою в багатьох аспектах, і в першу чергу семантично. Виникаючи на основі природних засобів комунікації, мова науки не може повністю звільнитися від минулого і зберігає у своїх глибинних шарах сліди початкового досвіду. Поліфункціональність лексичних одиниць, можливість одним і тим самим словом висловити відразу кілька значень служить визначальним фактором, що лежить в основі термінологічної номінації.

Одним із активних шляхів появи термінів є семантичний розвиток загальноживаного слова або термінологізація.

Дослідження процесу термінологізації загальноживаної лексики, семантичний аналіз термінів різних підмов техніки є актуальним, тому що дає можливість встановити змістовні відмінності між терміном і загальноживаним словом.

Об'єктом цього аналізу стали одиниці, що функціонують в англійській мові як загальноживані слова.

У процесі аналізу автор звертався насамперед до текстів, до сфери функціонування, оскільки саме там зароджується значення мовних одиниць, саме тексти демонструють ті ситуації, з якими пов'язане їх вживання.

Проблема термінологізації загальноповсякденної лексики визначає вибір функціонально-семантичного підходу, залучення нових прийомів та методів дослідження, насамперед аналізу глибинних процесів, що відбуваються в семантичній структурі слова. При цьому важливим виявляється облік комплексу різних ознак, оскільки формування термінологічного значення є складним процесом, що зачіпає не тільки семантику, а й системні зв'язки лексичної одиниці, її парадигматичні та синтагматичні властивості, словотвірні відносини.

Дослідження процесу термінологізації дозволяє виявити загальні внутрішньомовні закономірності формування термінологічного значення, становлення англійських термінологічних систем та відкриває перспективи подальшого вивчення технічної термінології.

Ключові слова: термінологія, технічний термін, термінологізація, метафора, метонімія.

Problem statement. The emergence of a special branch of scientific and technical knowledge necessitates the creation of its own terminological apparatus since terminological systems are a set of linguistic units that nominate objects and phenomena of a specific technical field. The basic unit of technical terminologies is the technical term.

A technical term is a unit of a special nomination that is part of a terminological array that serves a specific area of scientific and technical knowledge.

For a long time, the task of determining the place of a term in the language system remained one of the pressing problems of modern terminology. Studies of the linguistic status of the term determine its dual systemicity as one of its main features. The technical term in question belongs primarily to the general English language system, but it is also an element of the terminological system. Therefore, we can say that in the process of its formation and improvement, the terminology system relies on the linguistic resources of its own language. Being part of the general language system, any technical terminology is formed and developed according to the principles and rules adopted in the general language, that is, terminological nomination is carried out in the main ways that are characteristic of general language vocabulary.

In this study, terminology acts as a type of semantic method of education, as a process of rethinking the meaning of a lexical unit of a common language when moving into the terminological sphere, carried out through metaphorical and metonymic transfer.

Within the framework of this study, the focus is on regular metonymy, while speech metonymy, considered primarily by stylistics, is beyond the scope of this work.

Analysis of recent research and publications. The interaction of special and common vocabulary has become the subject of study in the works of many linguists such as M. Hilpert, A. Hornby, L. Bilozerska, O. Hloba, V. Karaban, G. Vasuchenko, M. Gaiduk. However, this problem still remains relevant and requires further study.

The purpose of the article is to study the role of terminologisation in the formation of technical terminology.

Presenting main material. Scientific and technical terminology is largely formed by terms created on the basis of modifications of the semantic structure of lexical units of the common language. This process is defined as terminologisation or semantic development of a commonly used word.

Terminologisation is understood in two ways. In a broad sense, it covers all processes of formation of new terminological units as a result of rethinking the meaning of a commonly used lexical unit. During the terminologisation of commonly used vocabulary, processes of narrowing or expanding the semantics of a lexical unit, various types of transfer are realized, i.e. processes that ultimately lead to the transition of a lexical unit to the terminology system. In a narrow sense, terminologisation refers to individual changes in the semantic structure of a lexical unit in the process of its transition to the category of a term (Bilozerska, 2010: p. 8).

The terminological metaphor has a stable character and does not evoke additional images or emotionally charged associations in the reader, since it is erased during use in everyday speech, loses its individual character and imagery becoming part of the semantics of the language (Karaban, 2002: p. 3).

In the field of technical terminology, metaphor is a means of forming a new unit of nomination (i.e., a technical term), for which purpose a ready-made unit existing in the common language is used. However, as in a common language, a term appears only if there are associative connections based on the similarity of form, appearance, impression, and function. With such a transfer, similar figurative associations arise, which at the time of the transfer are considered the most important. The motivating features underlying metaphorical transfer contribute to a deeper understanding of the processes of using metaphor to nominate new objects and phenomena, and a metaphor created on the basis of associations helps to explain what is not obvious, imperceptible to the reader's eyes, that is, it contributes to a deeper study of objects and phenomena (Gaiduk, 2009: p. 18).

The process of metaphorization in terminology occurs in several stages: at the first stage, special-

ists select a suitable lexical unit that can function as a future term, which is separated from the word; the second stage includes the process of forming the concept of an object under the influence of the semantic structure of a commonly used word; at the third stage, the selected unit is assigned to a new special concept. As a result of this process, a unit of a common language acquires its special meaning in a more or less narrow field of knowledge and becomes a term (Karaban, 2002: p. 41–42).

The following conceptual areas can act as the main sources of metaphorization: the human body, animals (this area is recognized as one of the most productive, since the names of the animals themselves, as well as parts of their bodies, are involved in the process of metaphorization); plants; buildings and structures; mechanisms and tools, etc. For example, the lexical unit «arm» denotes a part of the human body and has the basic meaning of «each of the two upper limbs of the human body from the shoulder to the hand» (Hornby et al., 2005: p. 13). Metaphorical transfer of meaning contributed to the formation of a new term in the field of welding, for example, «electrode arm» with the meaning «a device used in electric furnaces to transfer electrical energy to the arc or charge» (the symbol of transfer, i.e., the feature on the basis of which the meaning was rethought, was the function of objects). The word «skirt» with the meaning «a garment fastened around the waist and hanging down around the legs, worn typically by women and girls» (Hornby et al., 2005: p. 1503) served as the basis for the creation of a variety of terms such as «skirt supports» with the meaning «cylindrical shell sections welded to the outside of a vessel shell to provide structural support», «piston skirt» with the meaning «bottom of piston», «skirt» with the meaning «any part that extends downward to cover or protect the wheels or underside of the vehicle».

It is obvious that metaphor terms have advantages, which include brevity, accuracy, clarity, i.e. precisely those qualities that long book terms often lack. Moreover, they are not difficult to understand, since they are motivated and thus convenient for professional communication.

The disadvantages of the metaphor terms are the obscuring and distortion of the classification connections that exist between the corresponding concepts; such terms are often included in the terminology system of another technical discipline or branch of technology and represent homonyms for commonly used words (Vasuchenko, 2011: p. 65).

In contrast to metaphor, the universality and specificity of which lies in the fact that, in comparison with other types of semantic derivation, it operates

with figurative and associative similarity, metonymic transfer, also related to the processes of semantic derivation, is carried out from one denotation to another not on the basis of external or internal similarity of things, but on the basis of contiguity, i.e. the contact of things in space or time.

Metonymic transformations are based on an implicational connection. These are real connections between things, between a part and the whole, between a thing and a feature. The most obvious examples of implicational connections are spatial and temporal connections, relationships between parts and the whole, cause-and-effect.

The peculiarity of metonymic formation in the field of terminology is that a term formed in this way cannot be accidental; it is fixed as a stable formation common to all carriers of the term system.

A feature of metonymic transfer is its regularity. Metonymic transfer, in contrast to metaphorical transfer, which shows its illogicality, on the contrary, reveals a certain regularity, which manifests itself in the unmistakable prediction of the development of semantics in a certain direction (Hilbert, 2006).

An analysis of terms in the field of technical terminology shows that in this field of knowledge, metonymic transfer is carried out on the basis of the contiguity of various categories and objects of reality: actions, phenomena, objects and persons, materials and properties, etc. As a result, the main most productive models of metonymic transfer were identified that underlie the formation of terminological units of the industry under study. For example:

Action as the result of «channeling» is «channel formation», and «channeling» as a phenomenon is «the process that constrains the path of a charged particle in a crystalline solid».

Conduction 1) the act of conveying and 2) the process by which heat or electricity goes through a substance.

Reflectance 1) the fraction of the total radiant flux incident upon a surface that is reflected and that varies according to the wavelength distribution of the incident radiation and 2) reflection coefficient.

– Copper 1) material and 2) an item made of this material (copper coating).

Iron 1) material and 2) electromagnet core.

The name of the author is the name of the item he created: «galvanic cell, galvanic battery» (named in honor of L. Galvani) (Hornby et al., 2005).

Terms formed on the basis of metonymic transfer are characterized by various cases of transformation of vocabulary. The most common process in term formation is the transition of abstract vocabulary to concrete vocabulary. The following terminological units

can serve as examples: «pawl coupling», «hydraulic clutch», «timing control». In addition, the following types of transformations are possible: abstract – abstract (for example, «current conduction»), concrete–concrete (for example, «semiconductor», «iron»).

Conclusions. To summarize, we can conclude that the development of new meanings for lexical units is carried out according to standard models (shifts and transfers of meaning), the most productive of which are recognized as metaphorical and metonymic transfers, which are stable mechanisms for the formation of new lexical units, and not a stylistic trope associated with the poetic function of language.

The productivity of these types of semantic transformation is largely explained by the unique feature of human thinking, which is the ability to perceive similarities or contiguity between elements of physically perceived reality, as well as various kinds of abstract concepts in the process of people's cognitive activity. Additionally, meaning transfer (i.e. metaphor

and metonymy) as opposed to shift meaning (i.e. narrowing and expanding) is carried out consciously, consolidation of the result in the language occurs only under the condition that the basis for the transfer is recognized by the majority of native speakers, i.e. stable collective associations are formed.

The types of transfers discussed above (metaphorical and metonymic) are carried out according to models common to general linguistic and terminological formation. The models by which metaphorical transfer occurs are less diverse compared to metonymic ones.

In conclusion, it should be noted that when studying the role of terminologisation in the formation of technical terminology, it seems especially important to distinguish between linguistic changes in the meaning of a word and speech techniques, since the former lead to the emergence of permanent names and are fixed in the language, while the latter contribute to enhancing the imagery of the text, increasing the degree of its expressiveness and emotionality.

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