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## THE PROBLEM OF DERIVATIONAL NORMATIVITY IN TERMINOLOGY: THEORETICAL FOUNDATIONS OF UKRAINIAN TERMINOLOGY

# ПРОБЛЕМА ДЕРИВАЦІЙНОЇ НОРМАТИВНОСТІ У ТЕРМІНОЛОГІЇ: ТЕОРЕТИЧНІ ЗАСАДИ УКРАЇНСЬКОГО ТЕРМІНОЗНАВСТВА

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The article deals with the need to standardize terminology as an effective means of regulating and codifying the language of Science, which contributes to the development of a system of conceptual tools, codification of scientifically based Ukrainian terminology, and clarification of existing concepts. In addition, it is determined that the relevance of the scientific paper is due to several factors, primarily the need to analyze linguistic processes caused by technological progress; intensive development of scientific and technical information and integration of Sciences. Presented linguistic definition of a derivational professional terminological norm. The article analyzes the productivity of resources of the termforming potential of the Ukrainian language. It reveals possible ways to improve scientific and technical terminology from a linguistic point of view. The main reasons that determine variation in the field of terminology are described. Each term is noted to have its own definition expressed with the language signs of a certain form. Thus, the task of terminological derivation is to create a material shell reflecting the content of the concept. Any language sign somehow correlates its meaning with some concept, because correlation with a concept is the basis of a semantic content of a language sign. It is noted that the semantics of the form is implemented in a formant, as each formant has a certain degree of generalization, expresses a specific sema in the definition of a term. Violation of unambiguity in the ratio of a content plan and an expression plan, causing the possible implementation of the same meaning by two or more modified forms, is a manifestation of the asymmetry of a language sign. It is emphasized that as a term should accurately denote a special concept, one of the problems of modern linguistics is the study of the process of nominating the realities of reality, interiorized in thinking, and the conceptual sphere as a system of concepts. The prospects for further research are outlined. That vision is seen in the standardization of texts of normative legal acts, normative documents, legal, scientific, educational, technical, reference, professional and other literature in accordance with the Ukrainian-language way of thinking.

Key words: prescriptive norm, derivational normality, word-forming norm, word-forming affixes, term.

У статті йдеться про необхідність стандартизації термінології як ефективного засобу регулювання та кодифікації мови науки, що сприяє розробленню системи поняттєвих засобів, кодифікації науково-обґрунтованої української термінології, уточненню наявних понять. Окрім того, визначено, що актуальність наукової студії зумовлена кількома чинниками, передовсім необхідністю аналізу лінгвістичних процесів, спричинених технічним прогресом; інтенсивним розвитком науково-технічної інформації та інтеграції наук. Сформульоване лінгвістичне визначення дериваційної професійно-термінологічної норми. У статті здійснено аналіз продуктивності ресурсів термінотворчого потенціалу української мови, розкрито можливі шляхи вдосконалення науково-технічної термінології з мовознавчого погляду. Схарактеризовано основні причини, що визначають варіантність у галузі термінології. Зауважено, що кожен термін має свою дефініцію, яка виражається за допомогою мовних знаків певної форми, тому завданням термінологічної деривації є створення такої матеріальної оболонки, яка відбивала б зміст поняття. Будь-який мовний знак так чи інакше співвідноситься своїм значенням із якимось поняттям, бо співвіднесеність із поняттям – це основа семантичного змісту мовного знака. Зазначено, що семантика форми реалізується у форманті, оскільки кожен формант має певний ступінь узагальнення, виражає конкретну сему в дефініції терміна. Порушення однозначності в співвідношенні плану змісту та плану вираження, спричиняючи можливу реалізацію того самого значення двома чи більше модифікованими формами, є виявом асиметрії мовного знака. Акцентовано на тому, що, оскільки термін має точно позначати спеціальне поняття, однією з проблем сучасної лінгвістики є дослідження процесу номінації реалій дійсності, інтеріоризованих у мисленні, та поняттєвої сфери як системи концептів. Окреслені перспективи

подальших розвідок, які вбачаються у стандартизації текстів нормативно-правових актів, нормативних документів, правничої, наукової, навчальної, технічної, довідкової, фахової та іншої літератури відповідно до українськомовного способу мислення.

**Ключові слова:** прескриптивна норма, дериваційна нормативність, словотвірна норма, словотворчі афікси, термін.

**Problem statement.** The development of science and technology, and ensuring conditions for effective professional communication determine the need to streamline the relevant term systems, and to introduce terminological standards in various branches of human activity. Science and technology have developed term systems, periodically updated and supplemented. Ordering and systematization of terminology is an important component of the development of scientific and practical activities in any field.

**Research analysis.** The analysis of scientific research confirms that theoretical and practical aspects of term formation constantly attract the attention of linguists (O. Dyakov, T. Kiyak, A. Kryzhanovskaya, N. Nepiyvoda, T. Panko, O. Petrina, L. Simonenko, etc.). The structure of a term, its semantics in the context of specific branch term systems was the subject of study by such Ukrainian linguists as N. Articutsa, L. Veklinets, M. Godovana, M. Zubkov, L. Kozak, V. Marchenko, V. Morgunyuk, I. Rebeznyuk O. Serbenskaya, L. Simonenko, O. Kocherga, I. Kochan and others.

The topicality of the scientific research is determined by several factors, primarily the need to analyze linguistic processes caused by technological progress; intensive development of scientific and technical information and integration of sciences.

**The goal** of the paper is to investigate logical and linguistic problems of the process of forming technical terminology and to formulate a linguistic definition of the derivational professional and terminological norm.

The novelty is caused by a multidimensional integrated approach to the consideration of derivational normativity in terminology. The article analyzes the productivity of resources of the term-forming potential of the Ukrainian language. Possible ways to improve scientific and technical terminology from a linguistic point of view are revealed. The main reasons determining the variation in the field of terminology are described. The definition of a derivational professional and terminological norm is proved.

**Research methods.** The main research method is analytical. It allows us to find out the scientific validity and expediency of a specific language unit (including lexemes and a term, in particular). It also covers a set of the other methods, such as: methods of semantic, logical-conceptual, component analysis, the method of hypotheses, the method of grammatical analogy, the method of priority functioning, etc.

Presentation of the main data. In connection with the revival of national terminology and the development of the domestic terminological apparatus, the issue of rationing scientific and technical terminology, which has long developed under the influence of the Russian language, is becoming increasingly relevant. Therefore, one of the central issues of linguistic studios was the language norm studying, the main trends in term formation and the development of scientific recommendations for making new terminological units. The study used a systematic approach that allows us to interpret a term system as a complex, integral, self-organized, dynamic, structured system of terminological units that are interconnected, interact and develop according to the laws of language and under the influence of extra-linguistic factors.

Ukrainian linguists [2; 3; 10; 11; 12] analyze terminological security, and the ability to convey complex scientific abstractions, to designate phenomena and processes related to the development of technology and production. They develop scientific recommendations for the creation of new terms and the development of a terminological system. They also underline the problems that accompany these processes. There are three main directions in the methodology of terminology studying: lexicological, applied lexicographic, and theoretical lexicographic.

We highlight the problem of a norm in terminology in the second half of the 20-th century considering the logical and linguistic problems of technical terminology. Nowadays, this problem is becoming increasingly important for the development of modern national terminology, because the scientific style is characterized by the opposition: the general language norm is the style norm.

Linguistic accuracy of a term formation is an integral part of the normative aspect of the scientific style of terminology, as conscious term formation, according to T. Panko, defines the normativity of terminological systems [13, p. 16]. It is T. Kiyak [7, p. 65] who thoroughly examines the norm in the terminology. He reveals different views on the understanding of the norm in terminology, and general processes of ordering scientific and technical terminology. He analyzes the internal form and motivation of a term, and considers the compliance with its rules and norms of a certain language to be one of the requirements for a term [7, p. 8]. In the monograph A. Dyakov, T. Kiyak, 3. Kudelko analyze linguistic and extra-linguistic

factors that influence the construction and standardization of terms, study language interference as a sociolinguistic factor in the formation of term-systems, provide recommendations for the formation of the external form of new terminological units in the Ukrainian language [4].

L. Kazak points out the importance of standardization of terminology as an effective means of regulating and codifying the language of science. It's because standardization..." promotes:

a) development of a system of conceptual tools,

b) clarifying existing concepts,

c) codification of scientifically based Ukrainian terminology''' [9, p.14].

Due to the fact that a term like any other language sign reflects realities of various nature, M. Zaritsky notes the necessity to take into account the nature of realities that determine the features of creating a terminological unit and its standardization [5, p. 20].

So, the problem of standardization of terminological units is mainly reduced to the linguistic justification of the choice of such language forms for the designation of scientific and technical concepts that would correspond to the descriptive and prescriptive norm.

In considering the issues of unification and standardization of terminology, T. Kiyak suggests creating structural and semantic standards that can be used to form and normalize terms [8, p. 36]. In our opinion, it will contribute to the definition of a prescriptive norm.

While studying the scientific style of the Ukrainian language in diachronic and synchronous terms, it is necessary to realize that Ukrainian terminology should be developed and normalized taking into account its national and international functions. Analyzing semantic and word-forming phenomena and processes that reflect the extra-linguistic influence of the achievements of the scientific and technological revolution, F. Nikitina defines the characteristic word-forming features of newly formed terms. He indicates the influence of mass media in the field of normalization, unification and standardization of certain elements of terminological vocabulary [12, p. 24]. As T. Panko underlines term formation to be the conscious process, and therefore the internal form of a term is related to its motivation due to its definitive function. Defining the issues of motivation of derivational nature as the most important task in the study of terminological lexics, the researcher notes that the motivation of any terminological unit is primarily associated with the understanding of its semantic structure, with the awareness of the connections between the components of its systems [13, p. 12].

As a term is sure to denote a special concept, one of the problems of modern linguistics is the study of the process of nominating the realities of reality, interiorized in thinking, and the conceptual sphere as a system of concepts. Members of the Prague linguistic school noted that the necessity to talk about some problems of practical life accurately and systematically makes us create words-concepts ... for logical abstractions, as well as for a more accurate definition of logical categories by linguistic means of expression [15, p. 131].

Each term has its own definition expressed with the language signs of a certain form. Thus, the task of terminological derivation is to create such a material shell that could reflect the content of the concept. Any language sign somehow correlates its meaning with some concept, because correlation with a concept is the basis of a semantic content of a language sign. It is noted that the semantics of the form is implemented in a formant, as each formant has a certain degree of generalization, and expresses a specific sema in the definition of a term. Violation of unambiguity in the ratio of a content plan and an expression plan, causing the possible implementation of the same meaning by two or more modified forms, is a manifestation of the asymmetry of a language sign. Developing the thesis of language asymmetry of a sign, S. Kartsevsky notes that any linguistic sign is a homonym and synonym at the same time. He underlines that the same language sign can transmit different meanings, and therefore, the same meaning can be represented by different signs [6, p. 87]. A language sign, due to S. Kartsevsky, has two opposite centers of semiological functions: formal and semantic. The exact semantic meaning of a word can only be determined depending on the specific situation. Although synonymy is a natural manifestation of the laws of speech development, it is undesirable in terminology, because a term must be symmetrical in terms of the ratio of sign and meaning. "Only the meaning of scientific terms is fixed once due to the fact that they are included in the system of ideas" [6, p. 88]. And it is the asymmetry of a language sign that is the reason for the variation in terminology: "...the coexistence of single-root derivatives with the same word-forming meanings, but with structurally different types of derivational forms, is caused by the asymmetry of form and content in word formation" [1, p. 150].

Taking into account the needs of the development of the Ukrainian terminological apparatus, the problem of normalization of terminology in the word-forming aspect is topical nowadays. The problem of normalization of technical terminology is related to the question of internal form and lexical meaning, as a newly created terminological unit must denote one of the features and focus on the denotation. The concept is fixed in the language as a meaning, which is indicated by the internal form. The internal form is a mandatory characteristic of any word that fixes the concept. Motivation as a characteristic is always potentially included entirely in the internal form. Analyzing motivation by internal form T. Kiyak distinguishes between morphological and semantic motivations. Morphological motivation, in his opinion, is determined by the word-forming model of a lexical unit, while semantic motivation is characterized by the relationship between word-forming formants and the basis, between a new and a previous meaning. Contrastive analysis of the form and content of a semantic sign (internal form and lexical meaning) will make it possible to determine the presence of motivation of derived units, which acts mainly as a result of a purposeful word-forming process determined by the presence of a non-derived root part and a word-forming formant in the lexeme.

Each terminological unit is included in a certain microsystem of terms. It has a certain place there depending on the designated concept in the entire system of concepts, which affects the structure of terms and its way of creation. The consistency of terminology reflects the consistency of the object under study, that determines the presence of regular derivational chains.

The formation of a new term due to a certain word-forming tool is accompanied by normative labeling of its corresponding morphological characteristics.

The word-forming norm consists in the compatibility of word-forming affixes, that manifests itself in two ways: functionally semantic (internal) and morphological (external). That is, an affix with a certain function tends to be added to the generating basis of a derivative with the corresponding word-forming meaning. The generating basis formally adds morphemes of the corresponding sound composition: word-forming meanings of the same type are expressed using many different formats.

A suffix is known not to express specific values. It only sets a range, indicates the possibility of updating certain semas. At the same time, the postpositional derivative fixes the restrictions that are imposed on the functioning of the word-forming model.

Several works devoted to terminological word formation have been recently supplemented by Ukrainian terminologists. The word-forming structure of terms has attracted the attention of many researchers. O. Pinchuk analizes the structure of simple terms. A. Moskalenko, O. Pinchuk, N. Klimenko examines composite terms in their articles. In the study "Comments on the development of state standards in scientific and technical terminology" [10] V. Morgunyuk briefly defines the ways of naming such core concepts as action, consequence of action, ability to act, state of action, etc. in comparison with the corresponding Russian word-forming types. With the help of self-explanatory word-forming tools, the author clearly distinguishes between these concepts and their varieties, for instance: *transference* (incomplete action) – *transference* (complete action) – *transmission* (consequence of an action); *heating* (incomplete action) – *heating* (complete action) – *heating* (consequence of an action) [10, p.6].

Terminology originated and functions on the basis of the literary language and should develop according to its systemic patterns. Therefore, it is clear that a term should not contradict the requirements of the general literary norm in terms of its formal language structure. To make a term, it is necessary to identify the essential features of a given phenomenon, object, or their features, to separate them from the others, and to select the language tools that most accurately ensure the unambiguity and structural transparency of a term.

The possibility of implementing the same wordforming meaning with several word-forming affixes – formed in the process of formation of the word-forming system of the Ukrainian language – led to the variation of word-forming means. According to K. Gorodenska, variant word-forming means are interchangeable semantic and functionally identical affixes connected by parity relations [2, p. 3]. Depending on the functioning and normativity I. Verbovskaya identifies the following pairs of word-forming synonyms and variants in the Ukrainian language:

- with non-normative concurrency (the normative component varies with the non-normative one);

- with equilibrium parallelism (pairs consist of derivatives that are identical both semantically and functionally);

- with active parallelism (derivational synonyms have different scope and frequency of use, or have approximate word-forming meanings);

- with possible parallelism (multi-valued components that enter into random word-forming relations only in one of the meanings, or one of which is rarely used) [1, p. 78].

I. Verbovskaya is sure that derivational variation of words is primarily associated with a change in the morpheme (just as the synonymy of some derivatives is related to the synonymy of affixes). Derivational formal variants of word terms are terms belonging to the same denotation. But they differ in the semantics of word – forming elements. The main reasons determining the variation in the field of terminology are:

1) changes in the productivity of parallel derivational forms as a result of constant language development;

2) desemantization of affixes and neutralization of their primary values;

3) synonymy of word-forming tools inherent in variant terms;

4) adaptation of foreign language terms to the Ukrainian language system;

5) restoration of organic word-forming types for the Ukrainian language.

The presence of derivational terminological variants determines the principles of their choice: in word formation the preference should be given to those options that reflect the main trends of term formation best of all (regularity, specialization, and nuclear correlative formations of word terms similar in meaning).

The issue of normalization of terminological units is closely related to the choice of options. Normalization of special names is associated with the specific semantics of terms and professional means of expression in general.

Ukrainian terminologists recognize the existence of a professional version of a norm in terminology. Such norm does not contradict the norms of the general literary language. Highlighting the logical, semantic and linguistic levels of normalization of terminology, T. Kiyak considers "professional version of a norm" to be an object of correction on the part of linguistics and the sphere of influence of the language usage [8, p. 36]. In addition to the linguistic and conceptual aspects of a professional version of a norm, the logical aspect also determines the reliability of reflecting the hierarchy of scientific concepts in terminology. K. Gorodenskaya [2, p. 3] emphasizes the fact that in the formation of branch term systems on a national basis it important to preserve the identity of new terms due to the ways of creating words and word-forming types inherent in the Ukrainian language.

While choosing the means and methods of making terminological units, it is necessary to adhere to the principle of analogy, as the main trend in term formation is semantic and pragmatic regularity. A newly created term should be "organically included" in the word-forming set. Besides, terms for designating concepts of the same type should be formed according to the same word-forming model.

The need for a derivational professional and terminological norm arises in connection with the need to implement special names atypical of the literary language. While choosing an appropriate wordforming affix for the formation of a certain terminological unit, it is also necessary to take into account the content of the designated concept. As the representative of a scientific and technical concept is its definition, it is necessary to analyze the definition of the concept while making a new term.

To define the concept of "derivational professional terminological norm", one of the criteria should be the criterion of functional expediency of a terminological unit. It justifies the presence of lexical units that do not meet the norms of the modern Ukrainian literary language, but perform a nominative function in terminology and ensure the classification regularity of terms.

As a normative term is a special name in the field of science or technology that functions in the field of professional communication and is a component of the modern scientific classification system, the consideration of the most important features of a special concept, semantic compatibility of the creative and formant determine the possibility or impossibility of making a terminological unit.

In terminology, there are cases when one unit of the content plan correlates with several units of the expression plan. Thus, the introduction of the concept of "derivational professional terminological norm" will make it possible, in our opinion, to solve the problem of a language norm and a variation. Due to this, the main goal of compliance with the "derivational professional terminological norm" is to eliminate unjustified diversity and variation of linguistic means of expressing special concepts, but, it is undesirable for a scientific style.

The main characteristic for any norm, including a word formational one, is the supposed monotony of certain phenomena in all cases under the same conditions. And the terminological nomination, in contrast to the language one, is a purposeful creative process caused by the interaction of external and internal language factors. Therefore, in terminology, thanks to word-forming analysis, it is possible to reveal the patterns of formation of terms determined by the general theoretical provisions of derivatology. In our opinion, it might allow to determine the prescriptive norm for the term formation.

**Conclusion**. The conducted research allows us to give a linguistic definition of a derivational professional terminological norm. Thus, the derivational professional terminological norm is a set of optimal word-forming tools for expressing special concepts (word-forming models, word-forming affixes) representing the conceptual motivation of terms and ensuring their classification regularity.

The prospects for further exploration are seen in the standardization of texts of normative legal acts, normative documents, legal, scientific, educational, technical, reference, professional and other literature in accordance with the Ukrainianlanguage way of thinking, especially in the ordering of language tools. Such ordering is necessary for intra-lingual coordination of scientific and technical terminology, that will satisfy the unambiguity of the text and will contribute to the polishing of the Ukrainian scientific and technical style of speech.

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