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# Typology Of Polysemy Of Terms And Its Linguistic Features

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## ABSTRACT

This article analyzes the phenomenon of polysemy in terminology and its typological classification. It is demonstrated that the existence of polysemy in terminology, as a special layer of the lexicon, is a natural linguistic phenomenon. The study identifies and distinguishes various forms of polysemy. According to the author's conclusion, the polysemy of terms is not only a source of ambiguity but also an important indicator of the flexibility and dynamic development of scientific language. Its typological analysis has not only theoretical significance but also considerable practical value — in terminography, translation practice, and educational processes.

**Keywords:** Term, polysemy, conceptual polysemy, functional polysemy, interdisciplinary polysemy, determinologization.

## Introduction

Terminology constitutes a special layer of the lexical system of language and plays a crucial role in ensuring the accuracy and clarity of scientific communication. In classical theories of terminology, univocity of terms was considered a fundamental requirement, since polysemy was believed to undermine the precision of scientific language. However, modern research demonstrates that absolute monosemy is unattainable; on the contrary, polysemy is a widespread phenomenon within scientific language. A term simultaneously functions in both scientific and general language systems, which gives it a distinctive status.

Polysemy is a natural property of language and is also inherent in terminology. For this reason, A. A. Reformatsky figuratively described the term as a “servant of two masters.” According to N. B. Mechkovskaya, terms, while remaining part of the general lexical system, tend to preserve and expand their polysemous nature; moreover, the more frequently a term is used, the greater its semantic variability becomes.

In recent decades, the development of cognitive approaches in linguistics has led to a reassessment of the

phenomenon of terminological polysemy. Processes of conceptualization and semantic derivation that generate new meanings have been shown to possess a systematic character, which has resulted in the recognition of polysemy as a natural and legitimate phenomenon. Furthermore, contemporary scholars have proposed various typological classifications to address the problem of terminological polysemy.

This article, drawing on these theoretical perspectives and typological approaches, is devoted to a systematic analysis of the main types of terminological polysemy—conceptual, functional, interdomain, and polysemy at the intersection with general language. The findings aim to provide a deeper understanding of the semantic evolution of terminological units, to highlight their linguistic and cognitive features, and to reveal their practical applications in terminography.

## METHODOLOGY

Terminology is a distinct layer of the lexicon that ensures the precision and clarity of scientific communication. Classical theories of terminology have demanded the univocity of the term, since it was believed that polysemy

compromises the accuracy of scientific language [4]. However, studies of concrete terminological systems show that absolute monosemy is unattainable: the polysemy of terms is very widespread, and the univocity of a term is more an ideal and a tendency than an obligatory requirement [9]. In contemporary linguistics, a stable view has formed that polysemy is a natural property of language and, to a certain extent, is characteristic of terms as well. A.A. Reformatskiy figuratively called the term “a servant of two masters,” that is, he considered it to serve both the language of science and the general language at the same time [14].

N.B. Mechkovskaya notes that, while remaining part of the general vocabulary, terms “resist regimentation”—they preserve and develop polysemy; moreover, the more frequently a term is used, the more its semantic variability increases [6]. According to Mechkovskaya’s view, terms, like other layers of the general vocabulary, do not submit to strict regimentation. That is, although in theory it might be possible to manage and strictly delimit them on the basis of univocity, in practice they do not fit within those boundaries.

First, the preservation of polysemy in terms is connected with their continual use in both scientific and everyday discourse. A term formed within one field acquires new semantic facets when it transfers to another field. For example, the term “model” expresses different yet interrelated meanings in mathematics, biology, pedagogy, and even the fashion industry.

Second, an increase in frequency of use intensifies the semantic variability of terms. The more a term is used, the more it develops new shades of meaning in different contexts. This process stems from the natural dynamics of language and prevents terms from being strictly regulated.

Third, this feature prompts a reconsideration within terminology theory of the ideal of monosemy as a relative notion. In practice, the polysemy of terms broadens their communicative function and makes scientific discourse more adaptable.

## **RESULTS**

In recent decades, with the development of cognitive approaches, perspectives on terminological polysemy have shifted: it has become clear that the processes of conceptualization and semantic derivation that give rise to

new meanings are systemic in character. Therefore, the polysemy of terms is regarded as a lawful phenomenon that requires careful study. Moreover, the problem of terminological polysemy is recognized as one of the central issues in terminology studies and is directly related to the functional aspects of scientific language [6]. To address it, a number of researchers have proposed typological classifications of the various forms of terminological polysemy [8]. Specifically, in M.V. Zimovaya’s (2010) dissertation, the principal types of polysemy in terms are delineated across an entire spectrum: conceptual, functional, discursal, interdisciplinary, as well as polysemy that arises when a term extends beyond the bounds of a specialized field (i.e., the merger of terminological and general-language meanings) [8][9]. Similar approaches have been developed by S.V. Kiseleva and T.S. Rosyanova, who emphasize the need to take cognitive and functional factors into account in classifying terminological polysemy [9]. We now proceed to examine the main types of polysemy in terms in detail.

### **Conceptual Polysemy of Terms**

Conceptual polysemy is determined by the development of scientific knowledge and the reconsideration of the conceptual content of a term within the same subject field. This type of polysemy arises when the original meaning associated with a term comes into conflict with a new authorial conception or scientific hypothesis [6]. In other words, the scholar does not completely reject the old meaning of the term, but introduces a new one by supplementing or modifying it. It has been noted that conceptual polysemy expresses an attempt to overcome the “rigidity” of previous knowledge not by negating it, but by reinterpreting the conceptual apparatus [11].

When developing the dialogical concept, M.M. Bakhtin endowed the term dialogue with a new meaning in the humanities; this meaning differs significantly from the original philological sense of the term [3]. In the natural sciences, the reinterpretation of the concepts of mass and gravitation in the theory of relativity is noteworthy: A. Einstein enriched these terms with new content, although his interpretation did not entirely reject Newton’s views. In both cases, the semantic evolution of the term occurred within the respective field, leading to the coexistence of old and new meanings. Thus, conceptual polysemy reflects the dynamics of scientific concept development: as new theories emerge or the conceptual apparatus within a field becomes more precise, terms acquire additional,

interrelated meanings.

### Functional Polysemy of Terms

Functional polysemy of terms is determined by the diversity of communicative contexts in which terminological units are used and by the differentiation of functions in scientific discourse. The terminology of a field is not semantically homogeneous: it comprises different registers and contexts of use—for instance, research discourse, educational-pedagogical discourse, popular-science discourse, and so on. Different communicative situations impose varying demands on the precision and depth of terminological meanings [6]. As a result, the same term may acquire different semantic complements depending on the situation, while still remaining within the same subject field.

As M.V. Zimova's research emphasizes, the functional differentiation of scientific language—manifested in concrete acts of professional communication (differences among addressees, communicative aims, discourse conditions)—gives rise to a specific type of polysemy, namely functional polysemy [6]. This type of polysemy is determined by communicative characteristics—for example, the composition of participants (specialist–specialist vs. specialist–non-specialist), communicative goals (acquiring new knowledge vs. transmitting existing knowledge), and others.

An illustrative case can be found in medical terminology across functional contexts. For example, a drug classified as an antiseptic by pharmacologists is referred to as an antibiotic in patient-oriented instructions—that is, a term more familiar to a broader audience is used. In the “doctor–patient” situation, the meaning of antibiotic is somewhat broadened and simplified compared to the narrower, specialized sense used in the “scientist–pharmacologist” context [6]. The difference is determined by the communicative aim: in communication with non-specialists, the term is used in a less strict but more accessible form, whereas in professional communication a precise definition is required. Thus, functional polysemy signifies the existence of relatively stable variants of a term's meaning associated with different communicative functions. Each such variant is tied to a certain “facet” of discourse and fulfills a specific communicative role.

It should also be noted that earlier linguistics distinguished between language (systemic) polysemy and speech

(contextual, occasional) polysemy. In relation to terminology, however, such opposition has proven insufficient, since factors of speech usage directly influence the formation of terminological meanings [6]. In everyday discourse, occasional shifts may occur randomly; in scientific communication, however, if new nuances of meaning are consistently repeated in a given functional discourse, they tend to standardize and become stabilized. Therefore, functional polysemy can be viewed as a specific intermediate phenomenon: additional meanings arise under the influence of pragmatic conditions, but they achieve a certain degree of stability and are recognized by the professional community.

### Interdisciplinary Polysemy of Terms

Interdisciplinary polysemy (sometimes referred to as transterminologization) occurs when a term is used in different fields of knowledge, each time designating a separate phenomenon that is often conceptually related. Frequently, this situation arises from the transfer of a term from one subject field to another—either through direct borrowing or on the basis of metaphorical modeling. In such transfer, the original meaning of the term usually changes and enters a new system of scientific concepts, while retaining a fairly clear link to its initial field.

S.V. Kiseleva and T.S. Rosyanova describe one aspect of this phenomenon as intra-field polysemy—that is, the development of new meanings resulting from the reinterpretation of a term within a single professional field. They distinguish this from the actual interdisciplinary transfer of terms across different sciences [7]. In the narrower sense, interdisciplinary polysemy refers to a term extending beyond the boundaries of its original science and being integrated into the conceptual system of another field.

Examples of interdisciplinary polysemy are widespread in scientific language. Often entire conceptual models, along with their related terms, migrate from one science to another, generating new meanings. A well-known historical episode is the joint seminars of physicist N. Bohr and linguist R.O. Jakobson, which facilitated the exchange of ideas between physics and philology [6]. Specifically, R.O. Jakobson borrowed a number of terms from Claude Shannon's mathematical theory of communication (channel, code, noise, etc.) to describe linguistic processes. Originally pertaining to communication engineering, these terms acquired new meanings within linguistics (e.g., in

semiotics, “communication channel”), and later became firmly established across many fields of the humanities and social sciences. Consequently, the information-theoretical model acquired a multidisciplinary character: today, categories of information theory are employed not only by engineers but also by specialists in computer science, statistics, cognitive science, communication theory, economics, management, and beyond.

Another common mechanism is metaphorical borrowing of terms. For example, the biological term virus was metaphorically transferred to the field of computing: a computer virus is understood, by analogy, as a harmful program capable of self-replication. Such cases can be interpreted as interdisciplinary polysemy: the term holds different meanings in two (or more) domains, yet similarities or correspondences are observed among the meanings. Importantly, the same name does not always imply conceptual unity: in some sciences, the term elements may correspond while the concepts themselves differ significantly. Nonetheless, in many cases interdisciplinary “splitting” is based precisely on initial metaphors or models, maintaining a semantic link between the meanings; this allows such cases to be assessed as polysemy rather than homonymy.

### **Extra-Disciplinary Polysemy of Terms**

A phenomenon requiring separate consideration is when a terminological unit functions not only within a strictly scientific domain but also in general literary language or everyday speech. Extra-disciplinary polysemy means that, in addition to (or historically alongside) its narrow specialized sense, the term also possesses a general-language meaning. In essence, this represents an intersection between terminology and the general lexicon, producing a duality in the semantics of the unit: in professional communication the word operates as a precisely defined term, whereas in mass usage it functions as an ordinary polysemous word. As M.V. Zimova notes, one type of terminological polysemy consists precisely in the fact that the various meanings of a terminological unit may belong both to specialized and non-specialized domains of use [7].

The source of this phenomenon is often either the terminologization or determinologization of lexical units. A term may originate from a general-language word (terminologization) and retain its initial meaning in non-scientific contexts. For example, core in the sense of “the

center of something” became the physics term atomic nucleus, yet in non-scientific contexts it is still used metaphorically in phrases such as “the core of a problem” or “the core of society.” Conversely, determinologization occurs when a strictly scientific term enters common usage, acquiring an extended, often metaphorical meaning. For example, the genetics term clone in everyday language refers to any exact copy or a person resembling another very closely; this usage is far removed from its narrow biological sense. As a result, clone functions simultaneously at two levels—as a scientific term (“a genetic copy derived from an organism”) and as a general lexical unit (“a duplicate, imitation”).

Similarly, many technical terms (computer mouse, window of an interface, browser, etc.) have become common words due to widespread use, even though their original meanings derived from narrow professional domains. Thus, the intersection of terminological and general semantics leads a lexical sign to serve simultaneously two semantic domains—specialized and general—producing a specific form of terminological polysemy. The important point is that in professional discourse such words are usually clearly distinguished through context and expert understanding, while in mass usage their meanings may expand and become less precise. Nevertheless, the dual status of such words is accounted for in linguistic and lexicographic practice: dictionaries often indicate terminological meanings with special labels.

### **CONCLUSION**

The typology of polysemy in terms considered here makes it possible to systematically describe the various sources and mechanisms by which more than one meaning arises within a terminological unit. Conceptual, functional, discursal, interdisciplinary polysemy, and polysemy at the “junction” with general language—all reflect the interaction of linguistic and cognitive factors within terminology. The polysemy of terms is determined, on the one hand, by internal cognitive processes in concept development (metaphor, metonymy, scientific reinterpretation), and, on the other, by external factors in the communicative use of terms (differences among addressees, communicative aims, discourse practices, etc.). The dual nature of the term, as an element of both specialized and general language systems, leads to a greater complexity of semantic relations.

Studies show that the class of terminological vocabulary is

characterized by a more complex polysemic relationship than general vocabulary[25]. If, for ordinary words, polysemy is largely a spontaneous by-product of language development, then for terms polysemy often arises deliberately (as a result of scientific inquiry, generalization, transfer of knowledge), and is later either consolidated or restricted by the efforts of the professional community. Thus, the terminological system is subject both to the general laws of semantic evolution and to the specific principles of regulation.

In terminology today, polysemy is no longer viewed merely as a negative phenomenon to be eliminated; on the contrary, it is seen as an indicator of the adaptability and flexibility of scientific language. Developing a typology of term polysemy—as in the works of S.V. Kiseleva and T.S. Rosyanova[7], among others—has not only theoretical but also practical significance. A deep understanding of the nature of polysemy types is crucial for terminographic work (compiling dictionaries that reflect the different meanings of terms), for the translation of scientific and technical literature (the translator must determine the intended meaning of the term)[26], and for educational methodology (accounting for differences in term usage across educational and scientific discourses). In this way, the typology of term polysemy contributes to the systematization of the phenomenon, to the increased efficiency of communication in science and technology, and at the same time does not restrict the natural adaptability and development of terminological vocabulary.

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