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The Peculiarities of the Functioning of Terms in a Text

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The typology of texts in which terms are functioning has been developed. This typology includes texts using terms, texts fixing them, and as well as texts in which terms appear for the first time. The characteristics of such texts are enumerated: coherency, communicative address, etc. Two approaches to studying terms are described: 1. from term to the text, 2. from text to the term.
(Author)

1. Introduction

In the collective monograph "Aspects of general and special linguistic theory of texts" (1) it was conclusively shown that a branch of study popularly called "text linguistics" was developed in the 60s - 70s. One should distinguish here between a general theory tending to analyze texts in general and a special one which deals both with features of special texts and with some means of text making[1]. The study of technical texts and the specific features of the functioning of terms in these texts may be considered one of the applications of this special text theory.

In analyzing the problem of a term and a text one must naturally use almost all the concepts of text theory: the concept of the text itself, its coherency, integrity, separability, and expressivity (communicative target). More recently, pithiness and formal features of the text were distinctively brought out with the semantic vagueness both of the text and of its linguistic components being proved and formal means of different levels ensuring the coherence of the text being exposed. The size and the form of the text are likewise being studied. They depend on a number of factors, the first of which is the above-mentioned communicative target. The others are typological (genre and stylistic) applications of the text and paradigmatic characteristics of its components[2]. The study of these factors influenced the development of text theory itself[3] and the variety of approaches and methods used here (pragmatic, functional, generative and so on), the two most general ones of them being: from the whole text to its components, and from the components to the text.

2. From the Term to the Text

The relationship between the concepts 'term' and 'text' has been studied for a relatively short time only. In 1971, V.P.Danilenko developed the fruitful idea that technical and scientific terms exist in two spheres: in the sphere of fixation and the sphere of functioning (6). Terms are usually fixed in terminological standards, dictionaries and so on, where a term is considered to be ideal: not polysemantic, without synonyms and homonyms, depending on no context. At the same time in the special literature and technical documentation, in the speech of scientists and engineers, that is: in the functional realm real terms are used that do not meet the so-called requirements imposed on the ideal term. This fact must be taken into consideration, and one must either admit real terms, as is usually done by linguists in hundreds of books, papers, theses, or one must try to make them ideal, as this is done by numerous terminologists in many countries.

Methods of analysis of the functioning of terms in texts are called upon to solve this antinomy. The point is that terms do function in texts. Here one should note that of six main directions of terminological activity (8) that have been developed by now (dictionary compiling, regulation, standardization, translation of terms, completion of banks of terms, terminological editing) five (all but the last one) try to fix terms. Meanwhile, the sphere of fixation for the terms has by now been proved to be secondary. So there is no doubt that the study of real terms used in texts will help us to find new essential regularities of their creation and usage.

3. The Problems of Style

First of all, one should make up a typology of texts where certain terms are used. First of all, of course, there are texts where these terms used in their direct meaning: to name scientific and technical concepts. All these texts are of the so-called technical style, which can be divided into substyles, while within each substyle the texts belong to different genres. Making the first approach to the problem of scientific and technical style, we divide it into the following substyles: the scientific substyle itself (the genre of monographs, collected articles, papers of research and descriptive type, theses, surveys, descriptions of discoveries), then the technical substyle (draft, design, technological documentation, descriptions of inventions), the technical and economic substyle (systematic, statistical and other types of documentation, classifiers), the scientific and official substyle (organizing, reference, informative, administrative documents), the teaching substyle (text-

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books, encyclopedias, thesauri, reference books, dictionaries: scientific, for students, for standard usage), the scientific and reference substyle (abstracts, summaries, advertizing and trade papers, commercial catalogues), the popular-scientific substyle (popular-scientific essays, newspaper articles, feature-stories and problems of industrial enterprises) and others. However, the latter is regarded by the specialists to be of the journalistic genre where terms are used with non-terminological lexical units, as if disseminated or encrusted in the text; the same thing also happens in science fiction, in fiction[4], in texts of mass media, in other words, in the marginal spheres of the functioning of terms.

4. Differences in Types of Text

Speaking about texts of the scientific and technical style, it is necessary to note that some of them are coherent (monographs, articles, descriptions of inventions, textbooks, and so on), while others are discrete (classifiers, dictionaries, systematic documents), with many texts of the latter group being composed only of terms (some types of dictionaries and classifiers, standards of terms (10)), that is: these texts are elements of the sphere of term fixation. This contradiction (the sphere of fiction is represented by texts) leads us to suggest one more classification of texts that is specific for the study of terms in the text.

According to this proposed classification, texts are divided into three groups: those that use, fix, and generate terms respectively.

The *first* group comprises a large amount of different types of texts in which terms are used that have been consolidated in the vocabulary of the language and are known to the recipient of the text. These are articles of the survey type, various scientific, technical, official, economic documents, registering dictionaries, secondary informative papers, popular-scientific, journalistic literature, fiction, and so on.

The *second* group consists of defining dictionaries of terms, encyclopedias and reference books, thesauri, and many kinds of classifications, some textbooks, standards of terms, and lists of recommended terms, specially designed to evaluate, select, recommend and consolidate in the usage these or those terms and definitions of their concepts. In these texts one can also find terms that existed by the time of composing these texts and are fixed there as normative, recommended or, on the contrary, non-recommended and inadmissible. And the last - the third group is formed of texts whose authors use the terms for the first time in the process of formulation and explanation of a new theory, idea, invention or discovery. In texts of this type, terms are born together with ideas and concepts ("theoretical subjects", as they are called now). All this allows us to conclude that beyond and parallel to the spheres of fiction and functioning there seems to be a third sphere of existence for terms: the sphere of theory where terms are coined[5].

All three spheres relate to different kinds of texts.

5. Characteristic Features of Texts

Now let us compare the characteristic features of texts in which terms are used with the characteristic features of texts as formulated by the general linguistic theory of texts. It is natural that these characteristics behave differently in texts of different groups. So, the feature "coherency" and, related to it, the feature "completeness" can be found in scientific and technical texts which explain a theory, an invention of a discovery (term-producing texts)[6]. Integrity is typical for the text of textbooks as well as of finished popular-scientific and fiction literature.

Term-fixing texts, on the other hand, are not always coherent. So, different types of dictionaries of terms (scientific, for students, according to frequency of descriptors, etc.), classification systems, like the UDC, are discrete texts composed of sections which are very often incomplete utterances. Some of these sections may be taken out of the text without breaking its integrity (for example, when making standards of terms). At the same time there are coherent texts in which terms are used (monographs, essays, summaries), and the degree (density) of coherency in these texts can be measured (13).

As mentioned above, semantic vagueness is typical for texts and their components. But this feature is not typical for texts where terms are used in their full meaning. Moreover, vagueness of semantics is a negative feature of "underfinished" texts, and it results in attempts to make the text perfect by such means as e.g. terminological editing. A high degree of order in the texts with terms is of importance, too. It is reflected in a strict hierarchy of the components of the text. The complicated problem concerning the units of texts, which is not solved yet by the general theory of texts, is also open for discussion in terminological studies. Terms are not units of the texts, but they can be used as cementing material at the lower stages of the hierarchy in term-fixing and term-producing texts (dictionaries, classification systems, thesauri, scientific papers, monographs), often forming complete paragraphs in the former and nuclei in the latter groups of texts.

6. The Communicative Target of Texts

As far as the communicative target of the texts having terms is concerned, it may usually be of a scientific or technical, and in the broader sense of a special nature (according to this these texts are unexpressive, except texts that contain social and political vocabulary and terms of social sciences, because the semantic structure of these lexical elements includes expressivity). The communicative target of the texts under consideration also determines some other characteristic features (composition, ways and means of formation, degree of integrity and amount of information).

Two approaches are used when studying a term in a text: from the term to the text and from the text to the term. Both are relevant with the former, more traditional one being equipped with developed means and methods[7].

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In this approach the term is considered to be a datum (15). That is why here one can usually find a list of recommendations on how to use the term in texts of different types (a term and a definition in scientific texts, a term and an explanation in journalistic texts, and so on). The same applies to the usage of definitions of terms of term concepts (16). Then, using the approach "from the term to the text", the problem of substitution of terms in speech is solved. This problem raises hot discussions. It results from the fact that in addition to the inevitable substitution of a term in a coherent text for a pronoun (stylistic aspect), it can also be substituted for the so-called short variants which are determined by mere contextual conditions (general linguistic theory of texts, theory of texts, general linguistic theory), by the all-language features (World Health Organization, WHO) and by logical and semantic causes (a drilling machine, a machine) (19).

It is quite clear that further study of the term substitution problem is necessary. Be it noted, by the way, that it is within the theory of texts that many of the debatable questions connected with the variability of a term can be solved.

It has already been admitted by many scholars that a term successfully fulfills its functions of fixation and expression of scientific technical (specific) knowledge, notwithstanding the fact that the real term, having different kinds of variability does not meet the ideal requirements. On the other hand, from the standpoint of this theory, one should also study the aspects of the unsolved problem of independence of the term from the context (this thesis of D.S.Lotte is seriously criticized now, at least as far as the form of the term is concerned) (20).

7. From the Text to the Term

The latter approach (from the text to the term) is only now beginning to be developed. Virtually it gives opportunity to identify the term in the text and single it out from it (sometimes this is done for the first time, when the term "has just been born"). Some success is notable here after statistical methods have been used making it possible to determine the degree of terminological essence of different lexical units of the text. These methods are based on calculations of term frequency and amount of information furnished by terms in the text[8]. It is clear that this method can also be used to single out quasi-terms, and the further use of other - semantic, logic, methodic ways provides subsequently the estimation of these lexical units and the inclusion of singled-out terms into systems of terms. In the process of picking terms out of the text one should also solve the problem of the boundaries between terms. Really, how can we distinguish between a term-combination and a combination of several terms? What are 12-15 word-long "terms" included in some standards? The suggestion to call them terms of speech and consider them "to belong to the sphere of functioning" seems unconvincing (25). At the same time, when using methods of text theory it is possible to estimate the syntactic structure of polyword terms from the point of view of syntactic and idiomatic standards of the language and to recommend ways of making this structure close to perfect.

8. Terminological Editing

Here it becomes necesary to discuss one more application of the theory of texts - terminological editing, which includes, in particular, elaboration and utilization of rules of usage of terms and their definitions in the text and also syntagmatic editing (to achieve optimal semantics and form) of terms and their definitions[10].

Terminological editing presupposes a terminological analysis of the text. It may be asserted that terminological analysis of a text is a new branch in the field of study of scientific and technical, social and political and other texts. It comprises a number of methods and procedures; the singling-out of terms, their usage, the disclosure (in the text) of the term semantics, means of substitution of terms in the text for other terms and non-terms, the recognition of styles and genres of these texts, and so on.

9. Conclusion

This is only a beginning in the formulation process of the problems of the study of the functioning of terms in a text.

The basic concepts of this field of research are now being defined. This research must be called terminological text theory (because its concepts derive from both linguistic text theory and terminology science. New unsolved questions are being exposed, in particular that of the requirements imposed on the terms of a text. One can suppose that intensive work on the analysis of terms could lead to a revision of some principles of term unification. In any case, it has become evident that "the requirements imposed on a term" in the sphere of fixation and in the sphere of functioning are different, as, for example, in standards of terms and in a coherent text of a monograph (28). Hence, a number of theoretical and practical conclusions can be drawn, including the following one: it is wrong to fix terms and terminologies in standards and dictionaries in the period when terms are being "born" in texts describing theories, concepts, new subjects (in term-producing texts). And one can only then write term-fixing documents, the terms of which must wholly meet the normative requirements, when term-using texts have appeared, such as surveys, summaries, business and scientific and technical documents, which reflect the complete theory or concept.

Notes:

1 See (1). V.G. Admoni considers the science dealing with texts themselves to be a separate philological branch, which he calls textology, see (2).

2 For a list of categories (properties) of texts, see (3).

3 In particular, there are linguistic aspects proper and semiotic, philosophical, psychological, psycholinguistic aspects in the theory of texts. See, for example (4) and (5).

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4 About a term inserted into a fiction work see (9).
5 See the examples of term creation in (11).
6 It has been proved that the integrity of a text may be higher or lower. See (12).
7 See the details of the terminological analysis of the text, textual analysis of the term and of the combination of these types of analyses in (14).
8 The most promising, in this case, are the results of R.G.Piotrovskij and his students. For example (21-23). Compare with (24).
9 An idea to single out "terminological segments of speech", part of which are recognized to be terms, seems fruitful. See (26).
10 See (27) and also (8).

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