By the question about the tendencies of technical terminology development in the modern German language (the material of electric and technical terms in German, French and Russian)

Gulshat Beissembayeva*

L.N. Gumilyov Eurasian National University, 2 Mirzoyan street, Astana 01008, Kazakhstan

Abstract

Nowadays the crucial issues concerning standardization, unification, normalization, creation of terminological dictionaries which could satisfy completely the needs of experts working in various areas of science or technology are very important. The development of ways of term formation and terminology contributes to the active participation of experts in solving actual issues of modern science and technology, thereby increasing their informational awareness.

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1. Introduction

Nowadays the crucial issues concerning standardization, unification, normalization, creation of terminological dictionaries which could satisfy completely the needs of experts working in various areas of science or technology are very important. The development of ways of term formation and terminology contributes to the active participation of experts in solving actual issues of modern science and technology, thereby increasing their informational awareness.

Clarification, definition, revision of the meanings of terms and analysis of their thematic dictionaries cognitive meanings are among the most acute problems determining the progress of scientific studies. Actually,

* Corresponding name: Gulshat Beissembayeva. Tel.: +7-702-428-8172
E-mail address: ashenova_gulshat@rambler.ru
translational practice shows that without a special terminological dictionary correct translation of scientific and technical literature and documentation is impossible. Modern texts abound in new scientific and technical terms. Practically, every author of scientific and technical publication uses new terms or well-known terms in new specified special thematic dictionaries meaning. That is why research in terminological lexicography with practical important for scientific and technical translation. According to J.N. Marchuk [1,75], one special dictionary is published every day in the world. «The necessity of publishing the latter special dictionaries is essential and justified since the quantitative rise in terminology outruns the rise in special dictionary issues». According to S.V.Grinev, for instance, at the beginning of the 20-th century all scientific and technical terminology in German included about 3,5 million terms. Nowadays, there are more than 4 million terms in the terminological system of electrotechnics in the German language thematic dictionaries [2].

It should be noted that it would be more reasonable to concentrate on the issue of special and thematic dictionaries, which could reflect more completely a terminological flow in well-established and new thematic spheres that are the results of scientific and technical progress. Many authoritative dictionaries define “Lexicography” not as a science, but as the theory [3,345; 4,181; 5,382] and practice of dictionary compiling. According to the formation of theoretical Lexicography, the peak of Lexicography in Western Europe was at the end of 80s and of the beginning of 90s of the 20th century. At that period, alongside with the publication of different specialized dictionaries there were well-known lexicographical associations, societies, seminars such as: INTERLEX (DRC) – International Lexicography Course (Great Britain – University of Exeter); that published newsletters about international lexicographical studies on a regular basis.

At present time, international lexicographical symposiums were held at the University of Copenhagen, training courses at the University of Birmingham, international school-seminars at the Ivanov State University. The European Association of Lexicography has been very active as well. It now units not only European lexicographers, but also scientists from the USA, Japan, Australia. The Organization holds publishes an international congresses, issues on annual International Lexicography Journal with articles about historical, educational, scientific and technical lexicography.

2. Results and Discussion

The historical investigation of terminology under our study shows that considerable efforts were made to organize electro – technical terminology at the end of 19th century, when thousands of new terms and concepts appeared. Besides, at that period there were already incidents of confusion in use of terms, since, according to the session bulletins of International electrotechnical commission, different terms were used to express the same notion [5,26]. For instance, according to the same source at the beginning of the work of International electrotechnical commission in 1880, fifteen different terms were used to name electrical resistance.

During the epoch of the Soviet Union, in the country 750 000 terminological standards on various fields of knowledge were in active use. In the National Scientific Research Institute of Technical Terms the databank into which only standardized terms were entered was compiled. The term was given in the initial form, the complete definition of the term with its equivalents in several foreign languages was applied. The terms established by the standard, were obligatory for application in all kinds of documentation, in scientific and technical, educational and reference books. The German standardized terms of electro techniques, that have come to Russian, were given in State Standard (GOST) certification systems of the USSR in the following way: State Standard (GOST) 21415-75. Condensers of thermal capacity. Terms and definitions; GOST 23150-78. Switching of channels and switching of messages. Terms and definitions; GOST 23150-78. Switching of channels and switching of messages. Terms and definitions; GOST 13699-80. Record and information reproduction. Terms and definitions. Equivalents of terms were given at least in four languages, as shown in the table below:

| German   | Russian | English     | French         |
|----------|---------|-------------|----------------|
| Basis    | Baza    | Base region | Région de base |
In the process of unification of German terminology in Russian, international scientific and technical organizations play a significant role, including - the International Union of Telecommunication, the International electrotechnical commission, the International organization of standardization, etc. So, 160 countries of the world – members of the International union of telecommunication accepted the Regulations of radio communication which is the basic document that regulates the use of telecommunication terminology and is obligatory for all members. The first chapter of the mentioned document is devoted to the terminology necessary to adhere to in international cooperation. In total, more than 180 terms are defined, for example:

- nazemnaya radiosvyaz' (any type of radio communication, except space communication or radio astronomy) - Terrestrial Radiocommunication. Any radiocommunication other than space radiocommunication or radio astronomy;

- sudovoi avariynyi peredatchik (ship transmitter, used on the frequency of calamity, connected with disaster or safety) - Ship’s Emergency Transmitter. A ship’s transmitter to be used exclusively on a distress frequency for distress, urgency or safety purposes.

At the present stage of development of science and technology, the problem of scientific and technical terminology, its correct use, understanding and interpretation become more and more important, especially in connection with the penetration of IT technologies into all areas of science and technology. Considerable achievements in microelectronics and microprocessor technology, development of nano-technologies have provoked penetration of a huge number of foreign terms (including German) into corresponding branches in Russian that has as a consequence caused creation of the International Information Service on scientific and technical translations (IIS-Interinformperevod). Concerning the problems of formation of conceptually-terminological apparatus of modern linguistics it would be interesting to state O.Vjustera's opinion. According to the scientist, the problem of streamlining linguistic terminology should be reduced to observance of the following moments:

- studying real linguistic word usage;
- selection of terminology and its description in dictionaries of linguistic terms;
- comparison of national terminological systems in bilingual and multilingual dictionaries.

In other words, it is necessary to find and formulate such descriptors (words or combinations) which could most precisely define the nature of the given phenomenon designated by the given concrete term that as consequence would provide viability of this or that terminological system, its openness.
3. Conclusion

In the light of the above-listed problems, it seems necessary develop to design a thematic electrotechnical terminological databank on electronic carriers with a set of remote inputs in the dictionary, and also design automated dictionaries and systems working in a dialogue mode. Preparation of this sort of systems containing standardized symbols and terms is an important and necessary phase of standardization in and achievement of international coordination that will lead to an increase in a technological level and quality of the product. The given position, in our opinion, becomes especially actual in the light of the ratified customs union between three leading states CIS - Kazakhstan, Russia and Belarus.

Within the limits of the given work we completed the first stage of creation of such a dictionary, namely a dictionary of electro technical terms which have not found reflection in the existing technical and polytechnical German-Russian dictionaries. To study terminological vocabulary, it is necessary to distinguish between term fixation and term functioning [6]. O.Vjuster refers special dictionaries, terminological state standard specifications, collections of recommended terms, etc., where terms are registered in isolation, to the sphere of term fixation. He refers scientific speech, special scientific literature, in a broad sense of this word, to the sphere of term functioning. Further, the scientist stats and confirms the opinion that functioning spheres are primary, and fixation spheres are secondary. Terms are already established and consequently yield to operations of elimination then polysemy reduction, synonymy, «unpronounceableness», "discrepancies" to concept, "longueur", etc. [6; 7-10].

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