

Specialty 6D020500 – Philology

Synopsis thesis for the degree of Doctor of Philosophy (Ph.D.)

Annotation

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**MULTISTAGE VARIABILITY OF TECHNICAL TERMINOLOGY:
SYSTEMIC-DYNAMIC ANALYSIS AND INTERLANGUAGE CORRELATION
(Based on different structural languages)**

Refereed thesis is devoted to the complex description of the formation, development and current state of electrical engineering terminology in material of German, French and Russian languages. The study was performed within the framework of cognitive-discursive paradigm of knowledge, in which the term is seen primarily as a phenomenon Linguocognitiv (transmitting a certain amount of information from a known set of linguistic resources).

Topicality of research

The rapidly developing international contacts, the latest technology, which allows you to receive and share information, promote the need to involve in the range of research interests of a wide range of professional sublanguages. With the deployment of the processes of globalization and internationalization, causing the widespread development in the Republic of Kazakhstan international professional contacts in the XXI century, the study of various aspects of intercultural professional communication is becoming increasingly important. In addition, in a globalized world, the terminological system is the most dynamic part of the language, which reflects changes in the multilateral social structure, economy, science and other fields of human knowledge.

For purposes of this study the language policy in the ownership of two, three or more languages possesses particular importance especially in the language of professional communication. One of the most important aspects of the study of intercultural professional communication is the study of its effectiveness depending on the degree of mastery of the communicative competence of communication entities. Obviously, intercultural professional communication is effective in the first place with sufficient language proficiency communicants,

which involves not only the possession of a codified, but also non-codified system of professional language.

In this context, the problem of multi-variability of electrical terminology from the perspective of system-dynamic analysis and interlanguage correlations on material of different cultural languages is quite urgent because of the nature of terminological systems, which is the most dynamic part of the language, which reflects multilateral changes in the social structure, economy, science and other fields of human knowledge. This was repeatedly stated by many reputable scientists like R. Lerat, George. Sage, J.N. Marchuk, D.S. Shelov, A.V. Superanskaya, V.A. Tatarinov, Y. Slozhenikina, A.A. Reformed, D.S. Lotte, Sh. Kurmanbayuly, K. Zhubanov, J.S. Beysenova, and others. For example, the E.S. Cubreacov said: "Linguists are now making attempts to characterize the typology is not so much the language as a whole, as it private or subsystem level. First of all, typological description of the language or languages groups assumes typological linguistic description of the individual sub-systems. Terminology is considered as a special subsystem of language.

Actually the terminology of electrical engineering sublanguage has not been the subject of a detailed study on the material given many languages yet.

In terminological scientific practice, there are a number of works, one way or another affecting some aspects of our problem. As part of the scientific papers on the problems of the printing industry [1; 2], problems terms of physics and chemistry of the ratio [3; 4], aviation terms [5; 6], were subjected to analysis of individual cross-sectoral terms, which could be attributed to the sublanguage of interest to us. Globalization of studied sublanguage in today's information society development conditions, intensive introduction of interdisciplinary electrical engineering terminology in all branches of science and industry, demonstrates the relevance and the urgent need for a comprehensive study, systematization, unification and standardization of electrical engineering terms, taking into account different languages.

The theoretical basis for the analysis of formation and functioning of the electrical problems of terminology as a fragment of knowledge were the provisions and principles of cognitive linguistics - scientific field, in which language is seen as a kind of cognitive activity of man.

The undertaken research is more urgent because of current problem, which is relationship of languages, intertwining of electrical engineering terms in different structural languages; results of the last help to ensure a high level of mutual understanding and co-operation in most of the leading spheres of human activity; provide sufficient ownership terminology, which is the main condition for the perception of the scientific and technical text as you would with the documentation

of the corresponding character, and in the course of communication in the narrow professional environment.

Analysis of scientific texts in specialty showed that there are almost no literature that would accurately describe the system of measuring equipment in electrical section with the use of structural language. Hence, as a consequence, the complexities involved in the study of foreign informational literature on the specialty, as a fair number of invariants, the terms are not clearly recorded in the terminological equivalent, for example, Russian and Kazakh languages.

Thus, the relevance of the thesis is also determined by the significance of total studying components of electrical terms (structure, word formation and semantic characteristics of professionally marked linguistic units), as well as identifying cognitive factors of terminology in comparative study of different languages to solve the general problems of language and linguistic communication society. The study is also **relevant** in view of the fact that today the problem of the relationship of languages is important because of close termsystems interlacing in fields of Russian, German and French; results of the study will help to ensure a high level of mutual understanding and cooperation in most major areas of human activity, as well as provide sufficient ownership of the terminology, which is the main condition for the perception of the scientific and technical text as to extract information and to give adequate communication specialists in the field of professional communication.

The aim of the study is to identify the specificity of the language in different structural languages and corresponding "professional" language picture of the world based on a comparison of structural and semantic characteristics of language and thesaurus options considered professional technical language. Combining professional-marked units thematically, which establishes a connection with the practice of the study group functioning electrical terms, is based on a really existing community of objects and phenomena of objective reality is reflected in the language. Comprehensive study and description of the formation, development and functioning of electrical terms will reveal the specifics of the processes of linguistic and extralinguistic conditionality in these languages.

The purpose of the study determined the need to address the following specific **objectives**:

- 1) to analyze the current trends in technical terminology research, to identify the main trends in the development of terminological variation;
- 2) to identify the specifics of the ways the professional category term systems in electrical engineering in Russian, German and French, by setting the composition and structure of the language variants of electrical language;

- 3) to show multistage of lexical variation and identify the specific development patterns of electrical sub-language Russian, German and French;
- 4) to analyze occupancy and border thematic groups of the options under consideration electrotechnical terms using the prototype theory and taking into account extra-linguistic presuppositions;
- 5) to determine the causes of the similarities and differences in the composition and structure of electrotechnical terms choices in Russian, German and French;

The objects of the study are s Russian, German and French electrical term in a total of 6906 units. Examples in Kazakh language were also mentioned.

Subject of study: the process of lexical variation in structurally-linguistic and semantic characteristics of the thesauruses in different structural languages in the field of electrical engineering terminology.

The material of the study: special lyrics of popular scientific articles; special foreign-language dictionaries. Collection of material used electrical terminology in scientific discourse and in some cases by professionals in an informal setting was performed using the lexicographical sources.

Research methods were selected by taking into account the specifics of the object, language material, goals and work tasks. Complex method of study combines the definitional and contextual analysis, component analysis of the semantic structure of terms, techniques and framing thesaurus modeling, reconstruction of word-formation models of the terms. Method of structural analysis was used on the theory basis of the prototype; method of comparing definitions of terms from different sources; statistical method and quantitative characteristics of interest; diachronic synchronous approach.

The theoretical and methodological base of the research were works of foreign and Kazakh linguists in terms of terminology and theory (L. Drozd, D. Farji-Haguet, J. Humbley, J.C. Sager, R. Temmerman, P. Dury, A. Picton, M.- T. Cabré, I. Desmet, E. Wüster, E. Bárcena, T. Read, N. Sager, R. Kitteredge, J. Lehrberger, V.M. Leychik, Yu. Marchuk, S.V. Grinyov, V.A. Tatarinov, A. Baitursynov, W. Aitbaev, Kurmanbayuly S., et al.), E.I. Golovanov, S. Green Grinevich, T.L. Kandelaki, L.A. Kapanadze, O.A. Alimuradov, K. Atamuratova, D.S. Lotte, V.F. Novodranova, A.V. Superanskaya, V.A. Tatarinov), studying specialized sublanguages (V.P. Danilenko, E.I. Golovanov, O.I. Babin, G. Akpanbekov, J.S. Beisenova, J. Bilyalov, C. Bektas), in the field of theoretical foundations of the study dynamics and structure of a language picture of the world of frame and simulation of its elements (J. Blouet, V.M. Leychik, M.N. Latu, A.N. Baranov, V.P. Danilenko, Kubryakova E.S., S.V. Green Grinevich, L.M. Daurov, G.Z. Zhabagieva, O.A. Alimuradov, Kusainov A. et al.), as well as in the field of

general and computer lexicography (S.D. Shelov, V.D. Tabanakova A.N. Baranov, A.N. Yatsuhin, A.D. Tastenov and etc.)

The provisions for the defense:

1. Variability is objective and inevitable consequence of the development of language, which diversifies, animates a new form, makes it flexible, smooth and not as noticeable. Causes of variability are de-automatization of perception, the desire for simplification, the elimination of functionally loaded forms and redundancy. The definition of terms in the cognitive approach allows to a deeper understanding of the linguistic nature of the term, to relate his existence as a static terminological systems with its functioning dynamic element in the communicative activity specialists. Interaction of special and vernacular language: the transition unit category from one system to another is revealed as a gradual phenomenon, which has several stages, defining the specific character of the change of semantics and conceptual content of terminological units due to reduction of the structures behind them knowledge

2. Lexical variation and its concrete manifestations - substitution is the most common type in the field of terminological units. Associative variability is based on associative knowledge due to the involvement of context information. Morphological variation as a manifestation of structural and semantic and syntactic variability is associated with syntactic synonymy, polysemy, homonymy, abbreviation, internationalization are a natural phenomenon in the language for specific purposes (hereinafter -ESP) caused a interlinguistic and extralinguistic factors.

3. Extralinguistic conditions cause the formation of electrical engineering terminology and legitimacy selection of six main stages in its development. EXTRALINGUISTIC factor will largely contribute to the appearance differences, while proper linguistic factor will act to create similarities in composition, structure and semantics of the language under consideration of electrical terms. A characteristic feature of the linguistic terms of electrical engineering is a cross-sectoral and intra-synonymy, polysemy and homonymy; a close relationship with the terms of the science sub-language related sciences. The international character of the terms of the sub-language explains the globalization of modern society.

5. Multistageness of electrical variability of terms manifests itself in synonymous variation in the terminology of the studied sub-language development due to extralinguistic factor terminological systems electrical engineering as a whole, therefore it is inevitable and necessary fact of unification and standardization. From the point of view of the structural organization of electrical engineering terms, the most productive ways of their formation are morphological, syntactic

and method of abbreviation defined deviations in either direction, depending on the history of science.

6. The specifics of the laws of electrical sub-language development in the field of terminology specifics, term creation in the field of electrical engineering is that it contains all the methods of education, existing both in Russian and in German, but the prevailing morphological and syntactic method, and the method of abbreviation. The most productive way of creating terms in Russian language are challenging combination of availability terminology. In German, the most productive way of creating terms are complex terms.

Comparative benchmarking study of electrical engineering terminology in different structural languages shows:

- In Russian and Kazakh terminology: the prevalence of complex terms (further - CT) of the terminological combinations (hereinafter - TC), multicomponent terminological combinations (hereinafter - MCTC), phrasal terminological combinations (hereinafter - PTC), in simple terms (hereinafter - SP) and reductions;
- In the German terminology: the predominance of two- and three-term combinations (hereinafter - TC) and multi-term combinations (hereinafter - MTC) over simple terminological units and abbreviations;
- The German language as well as Russian and French, has all the morphological types of abbreviation in Russian and Kazakh languages prevails an initial abbreviation.

Frame model of terminological systems in electrical engineering at structural languages are characterized by the similarity at the kernel level, structured the same number of frames, and subframes. The difference between the same frame model is shown on peripheral levels: at the level of slots and subslot that proves the difference of perception of mental subject term spheres electrical structural native languages.

The practical significance of the research is that the results of the study can be used in the practice of teaching a course on the theory and practice of translation students both language and non-language universities in the specialty "Translator in professional communications", in the preparation of textbooks and dictionaries in systematization, unification and standardization of terminology. Pragmatic focus of the work is determined by the ability to use the research results in order to systematize the vocabulary of structural language in lexicographical practice, courses and special courses on lexicology, sociolinguistics, in the practice of teaching foreign languages. Also presented as an annex to the thesis Dictionaries can be used in the practice of teaching intercultural communication.

The theoretical significance of the work lies in the fact that revealed the study regularities in the formation and functioning of the considered terminology will make a definite contribution to the further development of terminology and terminography, the general theory of the term, in the solution of actual common language problems associated with the analysis of the impact of professional activities on the part and structure professional sublanguage; systematization and generalization of existing approaches to the theory of variation in modern linguistics. The thesis clarifies the procedure of structural and semantic modeling professional sublanguage deepen existing in modern linguistics and views on the essential functional features of electrotechnical terms. Work contributes to the solution of the problem of differentiation between the language for specific purposes (LSP), a special language and sub-language.

Scientific novelty of research. In this paper, electrical terminology first exposed to complex research in a comparative perspective with the aim of building a cognitive framing and thesaurus model the represented them special knowledge, but also in terms of identifying the structural and semantic and lexicographical characteristics of this sub-language. At considerable volume of material for the first time systematically numbered main word-formation models of electrotechnical terms, consistently analyze their semantic structure based on the construction of the opposition ranks, developed a classification body eponymous electrical terminology areas proposed principles and criteria for the standardization of the term system. For the first time taken diachronic description of the process of its formation, development, proposed periodization of occurrence of terms in connection with the development of the relevant field of science and technology.

Thesis, composite **structure** which is predetermined by the purpose, objectives and methods consists of an introduction, three chapters, conclusion, list of literature. We present a list of illustrative and lexicographical sources and vocabulary, which are included in the thesaurus electrical terms.

Testing of work

Key provisions of the thesis presented in 31 publications, including 1 monograph, 2 dictionaries, 28 articles, including 3 articles in journals included in the database THOMSON REUTERS, 3 articles included in the SCOPUS database, 8 articles in journals recommended Committee on control of Ministry of education of education and science and were pedstavleny 18 international and national scientific conferences near and far abroad: "Problems and prospects of continuing professional education in Kazakhstan" (Astana, 2009); «Philology: yesterday, today and tomorrow. VIII Sedelnikovskiy reading. " (Pavlodar, 2009); "Problems and prospects of continuing professional education in Kazakhstan" (2009); "Multi-purpose tracked and wheeled vehicles: the development, production,

modernization and operation" (Omsk, 2006); "Modern social and liberal arts education: Realities, Problems and Prospects" (Astana 2010); «Modern directions of theoretical and applied researches - 2011" (Odessa 2011); "Zhalpy til bilimi zhane Turki tilderiniñ özektı Maseleleri» - «To the issue of systematization of German technical terminology» (Astana 2011); Akdeniz Language Studies Conference 2013 (Antalya, Turkey, 2013); "Philological science in the modern world" (Almaty, 2013); "Foreign language education in Kazakhstan and the Modern World" (2013); «3rd Cyprus International Conference on Educational Research» (Cyprus, Lefkosa, 2014); "The cultural relationship: language, literature, translation and journalism" (Almaty - Kaskelen 2014); «14th International Conference on Education and Social Sciences» (Turkey, Istanbul, 2014); International Conference of Economics and Social Sciences (Paris, France, 2014); "New Paradigms and New Solutions in Cognitive Linguistics" (g Bishkek, Kyrgyzstan, 2014.);

«Engineering Technology Engineering Education and Engineering Management» (London, UK, 2015); «The Seventh European Conference on Languages, Literature and Linguistics (Vienna, Austria, in 2015); "Innovation in education and science." (Almaty, Kaskelen, 2016).

The articles reflect the conceptual positions of research, published in the journals recommended KKSON MES: Bulletin of ENU named after LN ENU (2009); EAGI Bulletin (2009); Bulletin of ENU. LN ENU (2014); Bulletin of KSU. Ualikhanov (2016); EAGI Bulletin (2016); Bulletin of ENU named after LN ENU (2016); PSU Bulletin (2016); Science and life of Kazakhstan (2016) and presented in the «Thomson Reuters» international publications and databases «Scopus»: Lefkosa, North Cyprus 2014 Available online at www.sciencedirect.com; 14th International Conference on Education and Social Sciences. - Istanbul: 2014. URL: <http://www.ocerint.org/index.php/digital-library>; «Engineering Technology Engineering Education and Engineering Management», London, 2015; «International Journal of Environmental and Science Education», Turkei, 2016. <http://www.ijese.net/makale/1529>.

MAIN CONTENT OF WORK

In the introduction the choice of topic, its relevance, scientific novelty, defined purpose and objectives, subject of study, formulation of position for the defense, the theoretical and practical significance of the work, characterized by the sources and methods.

The first section of the thesis "Theoretical and methodological foundations for the study of technical terminology" describes the theoretical principles of research.

In section 1.1 "Terminology as an independent scientific discipline" set out the main principles of formation term introduction as an independent scientific discipline, highlighted the main directions of the terminology of science in general. Thus, foreign Terminology highlights, within this terminological science, 3 different but not mutually exclusive directions:

1. Terminology - an autonomous discipline, which has an interdisciplinary character, serves the scientific and technical disciplines;
2. Terminology-oriented philosophy, interested mainly logical classification system of concepts and knowledge of the organization;
3. Focuses on linguistics, terminology is regarded as a component of the lexical language system and special, professional language, as a subsystem of a common language.

This section contains the views of both Russian and Kazakh researchers about the nature of the term. D.S. Lotte and E.K. Dresen, V.V. Vinogradov, A.A. Reformed, A.I. Moses, G.O. Distiller; terminovedy: R.G. Piotrowski, V.P. Danilenko, S.D. Shelov, V.M. Leychik, S.V. Grinyov, Y.N. Marchuk, E.K. Voishvillo and other logic hold the position that the term - a word or phrase of a natural language. The views of scholars differ on the recognition of a greater or lesser specificity of content, formal and functional structure of the term.

Kazakh researchers also do not have a clear relationship to the problem of the term. For example, T. Januzakov believes that the term - the words or phrases denoting concepts that are used in various fields of science and technology, M.M. Nurtaeva takes a special term for the word or phrase, taken in the professional activity and are used in special circumstances.

The term, according to Z.S. Beisenova, a fixed member of a certain terminology. [85, p.18].

Given section deals with the problems of terminology integrity. In addition to the integrity of its basic properties of the system are also its hierarchical structure, the presence of the structure, which is a diagram of connections between elements of the system.

Learning the language of state for special purposes without reference to the diachronic aspect, according to the leading foreign linguists (R. Temmerman, Pascaline Dury, Aurélie Picton, Marie-Thérèse Cabré, I. Desmet et al.) makes it impossible to accurately detect reliably as trends, and the history of the development of specific language concepts of a particular industry. This diachronic aspect of the study allows us to trace the history of terminological increments, as well as synonymous variability.

The cognitive approach to the study of electrical terminology, carried out in the framework of this dissertation research, allows us to follow the laws of mental processes described terminological systems in cognitive terms. For the study of electrical terminology in the complex technique used, including modeling of terminology and the construction of alternative models, followed by their semantic-cognitive and semantic frame analysis.

In section 1.2. "Sublanguage terms of electrical engineering as a lexical subsystem" sublanguage treated as a subsystem, a substructure that can function as a language of communication in a certain area. Electronics is the first branch of the art created by the practical application of the discovery of "pure" science, as "Electrical engineering - a field of science and technology associated with the use of electric and magnetic phenomena for energy conversion, acquisition and changes in the chemical composition of substances, etc."

Established periodization of the development of our terminology studied against the background of the history and development of appropriate science and technology industry:

Stage I (VI century BC -1600) - The period of origin of electrical engineering, which is characterized by the emergence of single-word terms.

Stage II (1600-1733) - the period of the study of natural power of nature;

Stage III (1745-1800) - During the active study of the properties of electricity when there is a formation as an independent branch of electrical engineering.

Stage IV (1820-1914) - A period of fundamental discoveries. During this period there is a rise in the number of terms in connection with the growth of new branches of knowledge caused by the industrial revolution, namely a number of discoveries in the study area.

Stage V (1914-1956) - Period electrolamp radio. It is characterized by powerful replenishment study terminosistemy due to resources of major European languages (German, French, English). For example: Faraday-Effekt m - Faraday effect - кѳбылысы Faraday - Faraday effect; Radiolampe f - vacuum tube - radio sham - radio tube;

Stage VI consists of two separate periods:

a) 1958-1969 . - Intensive use of semiconductor devices;

b) 1969 early. XXI Century - the period of development of microelectronic electrical engineering.

Terminological electrical engineering is considered as a complex hierarchical education, which highlighted the different levels and different types of relationships between these levels. Formation of a sub-language involves fixing the scope and sphere of operation terms.

A strong rationale for fixing a lexicographical experience of European terminology, to develop the whole housing industry terms. In particular, the Loic Depekker in his work «Entre signe et concept», says that «Les questions de méthodologie que posèrent inévitablement le traitement et la mise en forme du matériau terminologique ont conduit à soulever des problèmes d'ordre linguistique, notamment sur l'unité terminologique, les phénomènes de création et d'évolution des termes, la synonymie, la définition ont provoqué de constituer d'ensembles dictionnaires »-« Methodological issues, insisting on the imminent processing and application of terminological material, led to a consideration of the problems of language order, such as the emergence and development of the terms of the definition of questions, synonyms, entering into various spheres of information, leading to the need for automated specialized dictionaries ".

Variation is one of the most pressing problems in modern linguistics. This is a fundamental property of language, which is found at all levels.

The concept of "variability" is universal in linguistics, the reflective properties of a linguistic system to represent the differences between successive stages of historical development, by historical variation on the one hand, and the use of scientific terms depending on the geographical location, social, or institutional use situation on the other side.

The term "variant" in linguistics is a multi-valued and represents as special cases of variation, expressed in the form of tokens change in its identity and the existence of different versions of the national languages. Under the "invariant" means the quantity that remains unchanged under certain transformations of the object or frame of reference, which describes the object.

Variability in modern conventional interpretation of this concept is understood as the operation of two or more variations of one basic language unit, whether the phoneme, morpheme, token, or a certain semantic structure.

The second section "Optional models of electrical terminology in German, French and Russian languages: general and specific" explains:

1. Formal semantic variation of electrotechnical terms in German, French and Russian languages;

2. Examines the structural and semantic variation of German, French, Russian electrical engineering sublanguage terms taking into account the characteristics of

cognitive framing systems in electrical engineering. Typologically we have identified group variants electrical terms as morphological; morphological and word formation; word formation; abbreviational; The specificity eponimical terms built-cognitive frame model sublanguage electrical engineering, analysis of the main members of her subframes, slots and subslots and identified general and specific in varying electrotechnical terms in German, French and Russian languages. Examples in Kazakh language. In the thesis the analysis of the study were subjected to the terms, operating in German, French, Russian terminology of electrical engineering at the present stage. Based on the study of theoretical material, sample sublanguage terms of electrical engineering in the amount of 6906 units, the following results were obtained, namely, identified the following types of formal terms:

simple (derivatives): Dispersion f = Streuung f - dispersion - dispersion - dispersion; Pult n- remote - control - console;

complex terminology combinations in which one component can be replaced, but are not SbTs: Vandpassm = Vandpassfieltern - band-polupuskayuschy filter - Filtre passe-bande;

SbTs (available terminological combinations): Ballistische Galwanometerkonstante f - ballistic galvanometer constant - ballistikalyk turakty galvanometer - galvanomètre balistique constante;

SzTs (connected terminological combinations): selbststeuernde Schwingungenpl - self-oscillation - avtoterbelis - auto-oscillation; anisotropisches Mediumn - anisotropic medium - anizotropty ort - non- milieu anisotrope.

FrTS (phrasal terminological combinations): Transformator mit Duftkühlung - transformer Air ohlzhde-niem - auamen salkyndatylatyn transformer - Transformateur refroidi par air;

MKTS (multicomponent terminological mix) - where the number of components is 3-4 components, led to the abbreviation as a new method for terminoobrazovaniya;

abbreviations: Et - Elektrotechnik f - Electrical Engineering - Electrical Engineering - l'ingénierie électrique; ITTI = Informationstechnik, Technische Informatik f - information technology - akparattyk equipment - information equipment.

eponimnye terms, in particular: Joule-Lenz-Gesetz - Act Lentsa- Joule, Kelvin - Gradm - Kelvin, Kennely - Heaviside - Schichtf - layer Kennelly - Heaviside - E layer (ionosphere), Kerr-Zellem- capacitor (cell) Kerr AmpereVolt-Ohm-Metern - avometr - avometr - avometre, which is 2% of the sample; etc.

This section presents simple and derivative terms as a way of morphological term creation. This method of morphological term creation to study electrical

engineering systems German and Russian languages is the most common. Explicit derivatives are presented in German and Russian electrical engineering terminology, terms such as: Treiber - Driver - Driver - driver; Demodulationf - demodulation - demodulation - demodulation; Filter m - Filter - syzgi - filter; Generierungf-generation - the generation - oscillation; Akustikf - Acoustics - Acoustics - acoustics; Dämpfungf - dempfiroanie - tezhe - attenuation;

It should be noted that the analysis of the use of suffixes in electrical term systems German, French and Russian languages revealed the phenomenon of:

- A tendency to repeat with certain suffixes terms of categorical concepts relevant accessories. For example, in the German and French languages, with the suffix - tion, expressed procedural meaning of the term, for example: Übermodulation, Exkavation (nem.yaz.), Modulationf de l'absorption, conductibilité de l'installation f (fr.yaz.). The Russian term systems the same value is expressed by the suffix - ix - Table of, for example, amplification, attenuation; attenuation, windblown, shunting.

Analysis of complex terms (CT) and multicomponent terminological combinations (MTC) in electrical term system German revealed the main trends in the structural organization of the combinations to determine the types of syntactic relations between term elements consistency inherent in this kind of terminological units in the form of core- nesting relationship.

We have allocated 12 regions, the terms of which joined the terminological part sublanguage electrical engineering. This subsection examined in detail the process of abbreviation, which is a consequence of congestion term systems electrical multicomponent of terms.

In the analyzed sample, the abbreviation of the German electrical engineering terms are presented separately in the amount of 295 cuts in term systems in French 194 contractions, term systems in Russian language, 208 cuts, which once again proves the efficiency of this type of derivation for the highly specialized terminology, this method is also productive.

The paper is an excerpt from our dictionary developed cuts term systems Kazakh language. The proposed dictionary is an initial step in the unification of the Kazakh language of acronyms that will strengthen the positions of the national language in the field of specialized knowledge, as well as strengthen the position of the latter in terms of developing their own national electrical term systems.

The terminological variability eponymous German, French and Russian languages the problem of the nomination of new terms and TC resulting from the development of scientific thought, proper names of those scientists that this or that discovery was made. An analysis of terminological electrical engineering in the German, French, Russian, Kazakh languages were identified following types of

eponyms: appellations terms; Onim-term. The terms-Onim referred to as non-special knowledge appellatives, on the contrary, to a special knowledge. As any terminological unit eponymous terms can be classified.

As a result of the analysis of national and international terms of electrical engineering in the German, French, Russian, Kazakh, showed that of 9208 (including the terms of the Kazakh language) become international in 1854, which amounted to 20, 1% of the total number of terms in the selected four languages. Having considered this sample in terms of diachronic, we highlight the tendency to increase the number of international terms.

In subsection 2.1. "Cognitive-frame characteristic of German, French, Russian electrical engineering sublanguage terms" considered "Prototypical variability multi interlanguage changes" (2.2.1), prokognitivno-prototypical analysis is reduced to the description of the corresponding images and diagrams Gestalt images and removal on the basis thereof, cognitive-semantic (semantic) and lexical prototypes. The problem of variability seen with the use of electrical Rosch theory of prototypes. Of particular importance for our research also play a notion of "blurring" and "prototypical" in the language.

Our analysis on the above examples strongly supports the "theory of central importance prototypical" J. Austin identified in the PT study, CT, MTC, we followed Rosch located in the following categorical ranking: systems, devices, events, processes, methods. Thus, with respect to our study, a prototype-term, appears as an invariant cognitive model of human thinking. Frame-based modeling of electrical sub-language is considered as the most appropriate frame analysis method to describe the structures of knowledge, verbalized sublanguage terms of electrical engineering. Dedicated contact frames, verbalized by the terms and term matching make up the so-called concrete "foundation" variable language term systems sublanguage electrical engineering.

The analyzed frame model clearly shows the complexity of the structure of frames and subframes, their relationship. In particular, the frame "Electrical Equipment" provides a frame structure reflected in several groups of subframes. These frames allow you to accurately determine the electrical system scenarios, as a special field of scientific knowledge. The "electrical" basic frame is analyzed as an example.

The practical importance of framing techniques obvious to the unification and standardization of terminology. In lexicographical terms, this approach helps to present a logical system of concepts, focused around key scientific concept.

Polysemy as the prototypical variants in terms of electrical terminology contains analysis of polysemous terms of the German electrical engineering terminology. So, as a result of our study of the German electrical engineering

terminology 2302 terms - 186 were polysemous terms, the term in 1821 (79% of the sample) - monosemantic. From 186 terminological units - 120 terms have two meanings 38 terms have three values, 13 terms exhibit 4 numbers in 7 terms there are five values 2 terms have six values, 3 terms have family values, 2 terms have eight values, and only one term He showed the presence of eleven values.

A natural consequence of the manifestation of the polysemy of terms are metonymy, metaphor as a natural property of any linguistic system, terminological, including.

Variation is seen from the perspective of the use of metaphor, metonymic in professional language, namely the analysis undertaken of the invariants of the prototype. in terms of metaphor. The analysis of more than 350 texts in Russian, German, French.

With regard to our study, a prototype-term, it appears as an invariant cognitive model of human thinking. In other words, the mental perception of objective, subjective realities of the outside world rightfully can be manifested in such embodiments as prototypes subcategory. One or the other prototype-invariant is a certain model of knowledge is already apparent in the primary designation, whether scientific text or a certain discourse situation, the process of knowledge representation, which is objectively due to the already established model of perception of a language picture of the world. The prototype-version is usually identified in the operation, otherwise, the scientific text is placed in the term system. Prototype-invariant, generally located in the dictionary, i.e. fixed in fixing. Scientific texts are the same sphere of operation of the data-prototype versions (as subkategorialnye options).

CONCLUSION

The main purpose of this research was to identify extra - and intralinguistic prerequisites formation of terms in German, French and Russian terminology of electrical systems. The analysis confirmed that the fragments of the scientific picture of the world's languages reflecting electrical knowledge are represented in the language by the scope of electrical engineering terminology that forms the basis of the sub-language area. Presented sublanguage has qualitatively with the specific features of structural and semantic point of view and in need of standardization based on cognitive framing and thesaurus characterization.

To achieve this goal an extensive theoretical material has been analyzed on the main issues of terminology, monographs and textbooks in electrical engineering, polytechnic special literature by foreign authors. The object of the study was to sample German terms of electrical engineering, a total of 6906 terms, compiled by a continuous text viewing and lexicographical sources of Electrical,

German-Russian, Russian-German, Kazakh-Russian, French-Russian, Russian-French polytechnic dictionaries, technical dictionaries, textbooks, completely dedicated to electrical engineering, as well as scientific and popular articles from the Internet. Terminology of electrical engineering German and Russian languages was discussed, formed in the period around the end of XVI - the beginning of XVIII centuries.

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