TECHNICAL TRANSLATION IN THE SYSTEM OF TRANSLATION THEORY

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Summary

The problems and requirements for technical translation are characterized. The problems of technical translation as a type of special literature translation are quite broad and include difficulties and problems both with the text itself (lexical, grammatical, stylistic) and with the conditions and results of the translator's work. The prospects for the technical translation development are highlighted. The number of technical translations worldwide is expected to continue to grow as it has been growing since the beginning of the industrial revolution. With the increase in the volume of technical literature translations the demand for technical translators will also increase which makes it possible to predict the main prospects for the technical translation development, in particular, the prospects for the specialists training in this sphere. Taking into account the fact that technical translation is currently not sufficiently researched we can also highlight separate perspectives regarding the development of the science of translation in this aspect.

Key words: technology field, basic concepts, terms, processes, special literature translation, perspectives, development, technical literature translator.

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1. Introduction

Translation is considered to be one of the oldest types of human activity and the results volume of which is constantly growing nowadays. The importance of translation activity is increasing in the process od developing globalization because only due to it we can exchange information and provide communication between peoples all over the world. According to statistics, the volume of technical and commercial translation is 78% of all types of texts translated in the world.

Methods of technical literature translation as well as the classification of such translations have been developing for decades and the technical text problems have been studied for a long time. The need for certain technical knowledge for a translator working with a text in a special field became the most important problem faced by the specialists-philologists. At the current stage of the translation theory development there are still many understudied aspects which determine the relevance of our research and stimulate researchers to outline new research perspectives in translation studies.

The purpose of the study is to characterize the place of technical translation in the system of modern translation theory, to suggest its own strategy and recommendations for the effective technical texts translation for the technical translators training as well. In order to reach the abovementioned goals we have to face the main objectives of the study, that is to identify technical literature and technical translation linguistic features and specificities; to describe the issues and requirements for technical translation; to highlight the prospects for the technical translation development; to suggest some recommendations for technical translators training.

Scientific and methodological works of Ukrainian and foreign scientists in the field of applied linguistics, comparative linguistics, theory and practice of translation, technical translation were used as research material.

The following methods are used to solve the identified theoretical tasks: theoretical methods of scientific knowledge analysis (when processing material from the history of translation and supplementing the profession profile of a technical translator), conceptual and terminological methods (when revealing the essence of the translation theory main concepts and categories; when characterizing the scientific and technical literature); generalization (when working out definitions of the concepts of translation theory and researchers' views on translation strategy), systematization of the research problem scientific data.

2. Specificity of technical literature translation

We pay a lot of attention in our work to the translation primarily of technical text so its definition is also necessary. According to V.I. Karaban, when translating technical literature, the understanding of the subject of the translated text comes to the fore. At the same time, knowledge of the appropriate terminology adopted in this field of technology is of great importance. It is especially recommended to use standard terminology - where it is accepted. Before starting the case, it is necessary to thoroughly familiarize yourself with the main points important for understanding materials from this specialty *(Karaban, 2018).* "Technical translation is a translation used in the process of exchanging scientific and technical information. The content of the exchange is what is new that appears in the field of science and technology" *(Skrebkova-Pabat, 2012: 182).*

Scientific texts are more abstract compared to other types of texts. Technical texts are much more specific. They are also written in a somewhat simpler language. Yes, the terms are there, but the writing style itself is easier to understand. For example, from the study of certain purely scientific problems in any field of science, we can understand practically nothing. Instead, one of the requirements for writing the same instruction manual for any device is that it should be so simple that a person without special education can master this device (for example, household appliances). Of course, if we talk about equipment of a more complex nature, for example, about the equipment of a drilling rig, it is already dealt with by specialists in the oil and gas industry who are familiar with its functioning and know how to work with it. And here we can still emphasize that the instructions must be as precise, clear and understandable as possible, because sometimes the smallest mistake can lead to serious accidents, material and, worse, human losses.

The style of modern technical literature is based on the norms of written language with certain specific characteristics, namely:

1) a vocabulary that includes a large number of special terms and words of foreign origin, official (functional) words that often have a very important meaning, words that provide logical connections between individual elements of statements;

2) grammar, which includes complex and complex sentences widely used in technical literature, in which nouns, adjectives and impersonal forms of the verb prevail;

3) stylistic features (method of presentation), which include a logically based presentation of factual material using neutral vocabulary (formal-logical presentation) *(Pohyba, 2011: 110-111).*

According to Skrebkova-Pabat M.A., the technical literature with which translators work includes the following:

- actual scientific and technical literature (monographs, collections, articles devoted to various problems of technical sciences);

- educational literature on technical sciences (textbooks, manuals, reference books, etc.);

- scientific and popular literature from various fields of technology;

- technical (standards, passports, forms, technical descriptions, operation and repair instructions, technical tasks) and shipping (waybills, packing slips, licenses, certificates, customs declarations) documentation;

- technical advertising materials (brochures, prospectuses, booklets, company catalogs) *(Skrebkova-Pabat, 2012: 181).*

While considering the peculiarities of technical texts we name the main one of them is an accurate and complete presentation of the material with an almost complete absence of those expressive elements that are used in fiction and that give the language emotional saturation, relying on the logical, not on the emotional and sensual side. The author of the technical text seeks to exclude the possibility of voluntary interpretation of what is written, as a result of which there are almost no means of expression in technical literature, such as metaphors, metonymies and other stylistic figures, which are widely used in artistic works to give the language a lively, figurative character, and the texts themselves seem somewhat "dry" *(Pastukhova, 2011: 148).*

Knowing about the peculiarities of the style of technical texts, the translator must make sure that the text in the source language is written in the same way. It cannot be simplified, unnecessary details added, filled with expressions and idioms of other speech styles. The translation should be written in a neutral, objective language. Technical texts are, first of all, highly specialized, with a specific, industry-specific terminology. Therefore, for all terms, the translator needs to find their corresponding equivalents, especially in the field of science and technology to which this text refers, because, as we know, one term can have many different translation options, which, most often, are used in different fields . In special literature, terms bear the main burden, therefore, a greater amount of the translator's time working on the text in the source language falls on working with terms. At the same time, one should avoid excessive saturation of the language of the text with terms, that is, the so-called "pseudo-scientific" style.

It is also emphasizes that when translating this kind of materials, it is especially important to adhere to the principle of unification of terminology, to avoid differences in the naming of parts and devices, and when working on technical documents, special attention should be paid to the correct and accurate design of the translation, to consistency numbering of pictures, drawings, tables, etc. It is also necessary to strive for the use of standard designations *(Skrebkova-Pabat, 2012).*

Scientific and technical literature is also rich in infinitive and gerundial inflections, as well as some other purely book constructions, which sometimes complicate the understanding of the text and pose additional tasks to the translator. Sometimes the meaning of the entire sentence can change due to the misinterpretation of one phrase, so the translator should be especially careful with expressions and constructions.

The technical aspects of the translator of technical literature include the preparation of the text for translation (segmentation, transfer to text format), consultations with experts and specialists, as well as the introduction of the latest technologies in the translation field. Often the use of this kind of technology becomes mandatory (for example, translators are often required to be able to work with the Trados automated translation system).

Technical translation requires the work of several specialists, because it almost never happens that the translator is already at the same time a specialist in the field to which the text

to be translated belongs. Ideally, first a rough version of the translation is made by the translator, then it is corrected in terms of terms and some other points by a technical specialist, and only then the text is sent for general editing. However, in practice, such cooperation between specialists and translators is not always possible, which explains the insufficiently high quality of translations.

Technical translation already occupies a significant niche in the translation market today. It was researched that the volume of the world translation market is 9-20 billion dollars. The growth rate is 8% per year. The reasons for the growth are the development of world trade, the development of the information technology market, the development of Internet technologies, the transfer of functions of non-core units to specialized firms, globalization.

3. Issues and requirements for technical translation

Scientific and technical literature is of exceptional interest not only in content, but also in form. In addition to the huge number of books on science and technology, millions of journal articles are published worldwide every year. This greatly contributes to the development of the translation of technical literature. As with any type of activity, during the implementation of technical translation, the person engaged in it faces certain problems that become the object of study by researchers. As a result of such studies, it is possible to formulate the basic requirements for technical translation.

Technical translation as a type of translation of special literature throughout the entire period of practicing this kind of activity accumulates techniques and methods used by technical translators, as well as recommendations and requirements for its implementation. In the process of translation, there are also certain difficulties and problems related to technical literature. They certainly need a closer look.

Very often when translating technical literature there is a desire to deal with specialists in this field of technology. It is also noted that in this case the translator-engineer falls into another extreme - he neglects dictionaries, preferring to translate by guesswork. It is characterized by such features that prevent a good translation, such as a subjective attitude to the author and the content of the article and interference in the original text in order to make amendments.

On the other hand, the translator-philologist may have another problem in the translation of technical literature, this is a psycholinguistic barrier on the translator's path. Its essence is as follows: a linguist without an engineering education is not in a position to properly orient himself either in the field of technology (it is difficult to distinguish the new from the well-known, classic), or in the mass of translation tasks of a technical nature. He knows that the meaning of a word is determined primarily by the context, and yet he relies mainly on the dictionary. As a result, the translator-linguist publishes the so-called "dictionary translation" *(Slavova, 2016: 53).*

Vlasenko H.M. names the low quality of translations a separate problem of technical literature translating. He cites the reason for this, first of all, that the customer seeks to get the translation he needs as quick and cheap as possible and the performer who receives money for his translation work is forced to hurry translating quality into quantity. Under such conditions the translator simply does not have enough time to study thoroughly new technical terminology as well as to search for information and corresponding grammatically and etymologically correct equivalents in explanatory dictionaries, encyclopedias and on the Internet *(Vlasenko, 2009).*

The translation of technical literature is a complex, painstaking, independent work, the fruit of intense research work in the field of language and specific specialty. To perform such

work, it is desirable that the translator has an exceptionally high qualification: he has a perfect command of the language of technical literature, both the original and the translation. Theoretically, this is possible only within the limits of any one narrow specialty. However, there are practically no such people, and those few of them who meet these requirements are not involved in translations *(Skrebkova-Pabat, 2012).*

The problem of translating technical literature leads to the emergence of requirements that relate to both the finished translated text and the translator who performs this activity, and also forms an idea of how a properly executed translation should look.

The Ukrainian researcher Radec'ka S. emphasizes that more and more often company managers think about the fact that without high-quality technical translation there will be no increase in product sales volumes, without sales there will be no profit, and without profit there will be no development. A good technical translation is an important step towards development. Therefore, the demand for this type of translation is increasing, which, accordingly, affects the supply and, thus, the situation on the labor market. Requirements for translators of technical literature are also growing.

She formulates the main requirements for qualified specialists in the field of technical translation as follows:

1) the ability to understand the essence of the text presented in the original language;

2) the ability to imagine in action this or that device or technological process described in the technical documentation;

3) knowledge in this field in order to preserve the integrity of the structure of the original text by means of the translation language;

4) linguistic intuition – the ability to choose the most successful counterpart from several translation options of a technical term given in a dictionary or reference book;

5) the ability to adequately, succinctly and accessible convey the content of technical documentation;

6) practical experience of translating technical literature *(Bilozers'ka etc., 2010: 31).*

Ten requirements for a translation were formulated: first, the translated text must accurately convey the meaning even if it is contained in the subtext. Second, the translated text should be presented clearly succinctly and, if possible, briefly. Third, in the translated text, all observed cases of unclear and illogical presentation as well as errors of the source document, should be eliminated. Fourth, when presenting the translated text you should use standard verbal formulas used in a specific field of knowledge. Fifth, the translated text should not contain stylistic defects of the text (displacement of logical emphasis, tautology, etc.). Sixth, according to the presentation style the source text should correspond to the genre features of the document. Seventh, the terminology used must comply with state standards and other regulatory documents and, if necessary, be agreed with the customer. Eighth, the unity of terminology must be observed in the translated text. Ninth, omissions, spelling and syntactical errors are not allowed in the translation. And, tenth, the rules of editorial and publishing design must be observed in the translated text *(Antonyuk, 2017: 117-118).*

Thus, the problems of technical translation as a type of translation of special literature are quite broad covering difficulties and problems both with the text itself (lexical, grammatical, stylistic) and with the conditions and results of the translator's work. Based on the problems that translators may face researchers of technical literature translation formulate a number of requirements for both technical translators and the result of their work. Such studies are extremely important especially considering the prospects for the development of technical translation which we will be considered in the next paragraph.

4. Prospects for the technical translation development

Not only translators but also those who are engaged in their training should take into account the prospects for the development of technical translation, the demand for it and specialists in this field. It is necessary to realize that the better prepared the translator is, both theoretically and practically, the better he understands the field of technology in which he will translate the higher the quality of the result of their work which, undoubtedly, is extremely important for their employers. In general, we can state that the training of translators of technical texts is not effective enough. Translators often encounter technical literature translations in practice and there are actually no institutions that teach technical translation. The question immediately arises as to who, in such a case, is engaged in the technical literature translation. In fact, they are performed by people who do not necessarily have any technical education but speak a foreign language well. Sometimes this is also done by people with a basic technical education and often with a little knowledge of a foreign language. The problems of such translations were discussed in more detail in the previous paragraph.

It can be noted that the main specialization of a higher educational institution which also has a "Translation" major affects the kind of translations performed there. For example, there is a greater probability that in an economic university, considerable attention is devoted to the translation of economic literature, in a legal university the deal, accordingly, with legal literature translations. At the same time, the absence of higher educational institutions that would specialize in technical translation which would be the main specialization of the university, and not a separate department, is especially noticeable. Presumably, such institutions would be divided into sections or departments each of which would be engaged in the technical translators training in a certain field of technology. In this way it would be possible to cover the main technology fields the literature in which specialists in this field most often have to translate and the training of technical translators would become much more effective.

It is possible to organize the training of technical literature translators in a slightly different way. For example, the creation of an inter-university association would be effective. Thus, specialists in technical fields could give lectures or courses in their speciality to those who are going to devote themselves to the translation of this kind of technical literature in future. It would also contribute to the technical translations execution level increase.

It is possible to improve the training of technical translators even without creating such associations or specialized educational institutions. It would be recommended to introduce subjects or courses aimed at developing the skills and competencies necessary for the work of a technical translator into the educational curriculum. This may include, in particular, courses for a more detailed study of a particular technology field, basic concepts, terms and processes. Also, for better translation (in any field) editing course is extremely necessary. A good option is to conduct a certain internship of a translator at a production site in order to familiarize himself with all the processes that take place there.

Thus, it can be concluded that technical translation is still not sufficiently developed today and numerous perspectives are open to researchers of this type of special literature translation. In many respects, these perspectives may also be applied to the future specialists technical literature translation training. We will consider the profession of technical literature translator in more detailed way in our future research.

5. Conclusions

The technical translation itself can be attributed to a special translation - the translation of materials related to some field of knowledge with its own terminological nomenclature. Constant development of new technologies, development of cooperation between companies led to the fact that this service has become a part of our lives. The emergence of technical translation as a separate type of translation with its own characteristics and problems is associated with the beginning of the industrial revolution, which brought mankind a large number of inventions and scientific and technical achievements.

The technical literature includes actual scientific and technical literature (monographs, collections, articles devoted to various problems of technical sciences); scientific and popular literature from various fields of technology; technical (standards, passports, forms, technical descriptions, operation and repair instructions, technical tasks) and shipping (waybills, packing slips, licenses, certificates, customs declarations) documentation; technical advertising materials (brochures, prospectuses, booklets, company catalogs).

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