

The Metalanguage of a Scientific Text and Its Implementation in Translation

By

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Abstract

The study of text-forming factors being one of the topical issues of linguistics always holds attention of linguists: such a rounded phenomenon as text, and such a major problem as the production of speech acts (in written form). The article refers to the identities of this genre of scientific text as the abstract, describes its metalanguage and the ways of its reproduction in the translation process. Relevance of the topic of discussion is that in the post-Soviet countries the problem of scientific article culture is currently a gaze. The analysis is performed by comparing the original scientific texts (abstracts) (in Kazakh and Russian) and those translated into English, their characteristic linguistic properties and translation options are considered. Since they are neat and enable visual analysis of the entire text, which was necessary for this study. The translation usually starts with a pre-translational analysis of the text, where the metalanguage of scientific language, foremost, becomes the object under study. In this paper the method of interpreting the content of the original text in the target language is implemented through a detailed analysis of all the linguistic means used in the text (lexical, grammatical, stylistic). The received results gave new data of the peculiarities of the scientific text being translated. Besides, this study has broadened the knowledge of both scientific text and translation, which may be useful for further research in this area.

Keywords: linguistic analysis, scientific translation, metalanguage, units of translation, abstract, scientific text, metatext.

Introduction

As we know, the meta-language of scientific text highlights current trends in the academic space, where it makes sense to analyze publications in scientific journals. It allows integrating new knowledge for a wide range of readers from different fields. Scientific texts provide the necessary information for their users, and the discussion of a scientific problem is

Published/ publié in *Res Militaris* (resmilitaris.net), vol.12, n°3-November issue (2022)

the subject of their study. Therefore, in a scientific text, the problem must be clearly stated in order to figure out the key point of the research. Scientific text has its own peculiarities, and readers must have certain knowledge to understand them.

Theoretical basis of the study served as fundamental works of scientists (M. Krein-Kühle, R. Krüger, E. A. Nida, P. Newmark, A. Neubert, V. E. Chernyavskaya, Y. M. Lotman, P. G. Osminin, M. L. Alexeeva, M. P. Kotyurova, etc.), which address the features of scientific discourse in general, the specific features of scientific article and its structural elements.

To describe the metalanguage of the scientific text, the research mainly focuses on different types of linguistic analysis. Speaking of metatext, Y.M. Lotman described the text as “a complex device storing a variety of codes (decoding and coding), capable of transforming the messages received and generating new ones” (Lotman, 1992). The Norwegian scholar Kvam emphasizes the relevance of text linguistics as a possible path to a theory of translation. The prerequisites for a theory of linguistic translation of the text are outlined on the basis of translation as a re-contextualization of the previous text. This re-contextualization is based on specific pragmatic requirements for the translating text. Consequently, text linguistics has contributed greatly to the development of translation theory by considering both pragmatic, structural aspects of texts (Kvam, 2014). Tang K.S. and Rappa N.A. touch upon the issues of metalanguage in teaching literacy, the forms and functions of scientific genres. According to the authors, scientific metalanguage is a potential tool for improving literacy (Tang & Rappa, 2021).

The purpose of this paper is to examine scientific text, namely abstract, in terms of the source language for understanding and creating an acceptable translation of scientific texts from one language to another.

The key concepts of this paper are metalanguage and metatext. Their disclosure is required to proceed to the consideration of meta-textual components that used by the author of a scientific text for understanding. A metalanguage is a language intended and used to describe another language. The term of “metalanguage” is increasingly used in various fields of linguistics, primarily in the study of the language of science, in terminology, lexicography and related fields.

Methods

In translation studies, the concept of text plays a key role: a translator, unlike a linguist, deals not so much with language as with its specific language occurrences – texts, through which verbal communication is carried out.

Every text has certain content, i.e. carries some information that must be transferred in the process of translation. This content is sometimes called the meaning. The meaning of the utterance and the meaning of its constituent words are not identical. The translator operates with linguistic units, but the object of translation is the meaning, not words.

Initially, the translator addresses the prototext through analysis, having analyzing it beforehand. At the stage of synthesis prototext is transformed to the reader or to the idea, which is formed by the translator and which will be closest to the metatext. The specificity of the translated text is that it represents a full replacement of the original one, as no absolute

similarity is possible owing to the mismatch of individual elements of meaning. Thus, the text in translation acts as both prototext and metatext. N. A. Kuzmina suggests that the prototext refers to the initial text, that is, the original. And metatext is a secondary text created by the translator, that is, the text of the translation. The nature of the text in translation is dual: prototext and metatext act simultaneously, and relate to each other (Kuz'mina, 2001).

According to Bell, text is analyzed in two ways: micro and macro text analysis – monitoring coherence, logicity, and checking the logic between a given text and a potential model text, the process of creating which is happening. Micro analysis aims to check the logic of the text and the internal coherence of individual text units. Macro analysis aims to check the logic and coherence between the created text and the model to which the created text belongs. For example, if the text is a scientific and technical translation, there are often models of such texts to which – consciously or unconsciously we often refer (Bell, 1998).

A scientific text has its own rhetorical peculiarities, these peculiarities consist in the right authorial strategy (Alekseeva, 2002). Special attention has recently been paid to the study of cultural and linguistic characteristics of scientific publications, reflecting the existing academic traditions. A text structured according to the rules of one socio-cultural practice may be inappropriate when perceived by a specialist formed within another academic tradition (Baibatyrova & Zharkynbekova, 2021).

Raising the problems of scientific text, L.M. Alekseyeva reviews the peculiarities of the scientific text, affecting its understanding by the translator, and ways of translation of special knowledge in the translated text (Zharkynbekova, 2021).

Despite the difficulties of translation, it must be understood that the problems arise in any language and one should respect the specifics of the two languages, since the differences between the native and target languages, the laws of grammar for each language vary.

In the study, the characteristics of scientific texts and linguistic approaches to the text will be taken into account to determine the text to be described and evaluated as a scientific text. Taking into account all the issues of text-linguistics, samples of scientific texts will be analyzed using the comparative method. The necessity to solve the above problem created the need to analyze existing approaches to the methodology of teaching the translation of scientific texts and to search for a new one.

The material for research served as abstracts of scientific articles and their translations, included in the Kazakhstan periodical journals: “Bulletin of Al-Farabi Kazakh National University”, “Bulletin of L.N. Gumilyov Eurasian National University”, etc. “Proceedings of the National Academy of Sciences of the Republic of Kazakhstan”, “Reports of NAS RK”, “Bulletin of Karaganda State University”, “Bulletin of Abay KazNPU”, “Bulletin of K. Satpayev KazNTU”, “Science and Life of Kazakhstan”. The volume of the corpus was 30 texts.

Abstracts, as a type of text, are a brief description of the main text, including its main issues. At the same time, singled out as an independent type of text (or even a minor text, along with the TT), the abstract can be considered separately from the main text. Thus, the abstract serves as a good material not only for analytical, but also for visual observation of units of translation or intertext of the abstract (Brandes, 2001).

Results and Discussion

According to traditional requirements, the analysis of a scientific text should include the following main degrees:

The translator begins his or her work with the original text for two purposes: first, to understand what it is about; second, to analyze it from a “translator's perspective” distinct from that of a linguist or literary critic. Determine the intent of the SL and the mode of writing. The work of some perceptual psychologists will be helpful in expanding knowledge about this first phase of the translation process. When one reads, brain performs many tasks in such rapid succession that everything seems to happen simultaneously.

At the initial stage of comprehending the goal of their activity, the translator of a scientific text encounters a contradiction between the intention to create an adequate translation and the awareness of the unattainability of their intention. In this sense, this contradiction can be interpreted as follows: what the translator wants to achieve, and what s/he can achieve.

The second degree is understanding and interpreting the source text. On the basis of linguistic knowledge, with clear semantic units and guided by the rules of grammar-syntactic unit, the translator uses all her/his abilities. At this stage of text analysis, in addition, the translator's background knowledge plays an important role. At the same time, the main process in the translation technique is to understand the conceptual saturation of a scientific text. Consequently, the translator of a scientific text takes responsibility for misunderstanding a scientific concept and misrepresentation, which, in turn, can lead to a distortion of scientific thought. As the analysis of methodological principles shows, behind intralinguistic and interlingual translation lies the same kind of thinking – reflection. This situation has helped us to identify factors for the further development of the translation analysis methodology (comprehension, reflection, construction). The famous German translator Christian Nord has developed a summary of the most important external textual factors that characterize the communicative situation of the text, and internal textual factors that affect the nature of the source text (Christiane, 1991).

The third step in the analysis of the translation process is the analysis of internal textual factors. After the translator has received an overview of the external textual factors, s/he must continue the analysis of the internal textual factors in order to get a complete picture of the source text. Nord describes them as textual factors that significantly affect the nature of the source text. Proper text segmentation is a prerequisite for correct understanding of the text, because a text is clear only when it allows us to follow the flow of thought freely, consistent with the topic and the situation.

The last step is to find one of the possible choices among the proposed translations. This is the step where the translator's decision assumes all of the factors listed above. The translator evaluates the semantic and stylistic features of each possible option. Finally, the translator decides which of the suggested variants matches the specifics of the source text. The remainder of the text is translated from the verbal language into a language belonging to another sign system, which for the most part is still unknown: the mental language.

In order to achieve adequacy translator makes in the text of the translation (compared with the text of the original) a set of transformations: lexical, lexico-grammatical, grammatical,

and stylistic. In doing so, s/he must be guided by the principle of expediency of certain translation techniques. Creating a “secondary text” – a multi-stage procedure, it is necessary not only to convey the factual information contained in the original, to preserve the linguistic features of its presentation, but also to achieve the desired impact on the recipient of the text of translation, to maximize the communicative proximity between the original and translation. For example, when writing an abstract, Kazakhstani authors prefer to use the following phrases: “the article describes / maqalada ...qarastyrylady”, “the article outlines / maqalada körsetilgen”, “the article considers the problem / maqaladamäsele qarastyrylady”, etc., that is, they prefer to use impersonal constructions, mostly using the passive voice. In English translations of abstracts, they often correspond to active constructions: “the paper describes”, “this paper addresses the problem of”, “this article presents”, i.e. the “doer” is the work itself, not the researcher.

When translating any text, the translator must convey the message, attitude and intention of the author of the source text to the TT, for a clear understanding between the creator of the text and the recipient. Consequently, the translated text must retain the same idea as the source text.

Summary

The analysis of abstracts from various branches of science revealed that the discrepancies that we have identified are typical not only for the target text but also for the original one. Oftentimes, the authors of original articles both in the Kazakh and Russian languages fail to comply with the basic requirements for writing abstracts, both in terms of composition and content. Many authors have no command or insufficiently abide by the textual norms and rules of presentation of the scientific result in the form of a publication focused on the international samples. Authors often pay no regard for the structural design of the abstract, for the correct and logically meaningful construction of sentences for the communication the core information, for the use of stylistic and lexical resources of the language in which the abstract is written. No doubt, this complicates the translation into English.

On the other hand, the analysis conducted by the article authors showed that there are translational inconsistencies, which are as follows: 1) literal translation where grammatical features of the English language are not taken into account; 2) accumulation of several sentences in one, which complicates its perception; 3) use of the vocabulary untypical for scientific language; 4) disruption of coherence and consistency due to improper use of relevant constructions, etc.

Conclusions

The provisions of text linguistics are necessary for the translator to conduct a comprehensive analysis of speech works to reproduce their content in the English language while keeping the communicative significance, which often requires the involvement of extralinguistic factors. These seem to be factors that are due to the different goals of schemes of abstracts and the research traditions from which they originate. Yet another crucial aspect that should be considered in translation is the cultural background of the original text and the target text. Therefore, translators should be experts in the production and perception of text through languages and cultures (Charfaoui, 2008). Every text is part of social interaction and

thus is always culturally conditioned, whilst every linguistic community has its principles regarding texts (Ashrapova et al., 2020).

The study of the process of translation and its output provides language experts with the necessary material for comparing languages in the context of identifying their similarities and differences in how they display the phenomena of the world around us and satisfying human communicative needs in various social spheres and situations. Thus, translation contributes to the development of text linguistics.

Acknowledgements

This paper is performed as part of the implementation of the Kazan Federal University Strategic Academic Leadership Program.

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