

THE FEATURES OF THE SCIENTIFIC TECHNICAL TRANSLATION

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Annotation: *Translation is an act of transferring text from one language into another; this act requires some skills that can be divided into two types linguistic and extra- linguistic skills. As we live in globalization era which is characterized with the dominance of English as universal language of scientific inventions and communication, translation has a paramount role to contribute in the scientific dissemination. The scientific texts are considered as a challenge for the translator since they contain terms and scientific topics, to overcome these challenges the translator has to be familiar with terminology in one hand and with scientific topics in other hand. This article aims at shedding light on scientific language features, in addition to determine the different problems of the scientific translation, in order to establish approaches to scientific translation by analyzing translated scientific examples.*

Supporting concepts: scientific translation, terminology, translation approach, extra-linguistic skills

INTRODUCTION

English is emerging as a universal language of science and technology; the statistics show the growth of scientific publication written in English in recent years, in their article Mario S. Di Bitetti and Julián A. Ferreras (2017) pointed out:

Within the last few decades, English became the dominant language of science, with more than 90 % of the indexed scientific articles in the natural sciences been published in this language. Researchers that want to communicate their results to the global scientific community seem to have no other option than to write and publish their articles in English. Having a lingua franca allows researchers from all over the world to communicate in one common language.

There are lot of factors that led to the spread of English as an international language ,the main profound cause is the emergence of the USA as a powerful country after the World War II, because it was not destroyed during the second World War and it witnessed the immigration of the scientists seeking for the development of their researches ,in addition to the Cold War as a motivation to United States to encourage the scientific research. Moreover the technological development is considered as the most important factor of the use of English among the youth who prefer speaking and writing in it, the internet role cannot be ignored in large usage of English since it is the language of its invention.

It is noticed that the need for the scientific and technical translation into Arabic is getting increasingly important because many Arab countries are currently undergoing a large-scale modernization process.

In order to follow this technological and scientific development, Arab world need a serious movement of scientific translation. This later is not an easy task, although, it seems that the scientific translation is a simple substitution of terms in a certain field, but, in fact, it poses different kind of challenges where the translators face linguistic and extra linguistic problems, the aim of this paper is to reveal these problems and try to find strategies to solve them.

1-Specialised translation

Specialised translation is a recent branch appeared with the emergence of what is called in linguistics as Language for Specific Purpose (LSP) basing on knowledge Lerat argues that LSP is pragmatic notion since it is a natural language considered as a vehicle of specialised knowledge .The expression of specialised translation has been defined by several translation theorists. In their definition Wright and Wright (1993) made no difference between scientific or technical translation since the both are regarded as part of specialized translation.

Technical translation encompasses the translation of special language texts, i.e., texts written using Languages for Special Purposes (LSP).As such, technical translation (and “technical terminology” as well) includes not only the translation of texts in engineering or medicine, but also such disciplines as economics, psychology and law.

Similar to them Ghazala explained that there is no distinction between the technical and scientific translation the both are positioned under the specilised translation “the translation of scientific and technical terms of all kinds: medical, physical, chemical, mathematical, mechanical, technological, biological, agricultural, computer and other terms of the various branches of science”.

The term specialised translation, also referred to as LSP translation, where LSP stands for Language for Special or Specific Purpose can be considered as the translation of texts dealing with subject-specific knowledge, using specialized terminology, having a particular communicative purpose and addressing a specific audience.

In general it refers to the translation of specific field that requires specialized knowledge.

2-Scientific translation

It has been already mentioned that Ghazala classified scientific and technical translation as specialised translation; he also determined its aim to transmit scientific information from SL into TL. Also, it deals with texts on subject based on applied knowledge from the natural sciences. Each field of science has its specific language so it is a must for the translator to have a specific scientific background which allows him to translate from one language into another. The translator of Mathematics for instance, needs to know the mathematical terms and abbreviations. the message and information

form the spirit of the scientific text which translator must reflect in his target text; unlike the literature translation in the scientific one, the translator focuses on the information rather the esthetic aspects, in this type text is qualified as pragmatic text where the information is the dominant aspect.

Byrne (2006) agrees with Delisle and claims that, scientific translation primary goal is to deliver scientific information; it aims at presenting well expressed information, that may be used easily, properly and effectively. He referred to scientific translation as a communicative service, which offers new information for new audience, since scientific translation is regarded as communicative service; it certainly involves three main people, which are the author, the translator and the reader. He added also, that it is much more than just rendering source text language and style. Its main concern is to ensure delivering information accurately and correctly, in that it ensures that the reader may use this information easily. Technical translation can thus be understood as the translation of texts about how scientific knowledge is put to use.

3-Characteristics of scientific texts

In scientific works, the topic takes priority over the style which aims at expressing facts, experiments, etc. The reader of such scientific works does not read it for any pleasure which a reader of literary work usually seeks, but he reads it to find information it contains. Scientific words differ from ordinary and literary words since they do not accumulate emotional associations and implications.

This explains why the translation of a scientific work is supposed to be more direct and much less artistic than the other kinds of prose. The language of scientific and technical language is characterised by impersonal style, simpler syntax, use of acronyms, and clarity. The aim of the distinction between scientific and literary texts is to guide the translator to possess the subject matter and concentrate on it instead of style. The scientific and technical texts are characterised as follow:

Non-figurative Language:

Scientific text underlines the information without bothering about features that are characteristic of poetic texts, such as rhyme, connotative and symbolic meanings. This idea is set by Newmark "it is usually free from emotive language, connotations, sound-effects and original metaphor" (1988, p151).

Use of Passive in Scientific Writing:

Passive Voice is one of the most well-known features of scientific writing. This is frequently used in scientific writing to create an impersonal scientific text. In order to remain objective and impersonal, the technical writers choose passive form because the importance is given to the information (invention or discovery) rather than who did something. Newmark added other grammatical features such as the use of nominalization, third person and present tense.

Use of Nominalization:

Scientific texts writers prefer representing events and qualities of objects not as verbs, adjectives, and adverbs but as nouns. Nominalization allows the scientists to pack complex information into a compact unit. Halliday (1988) claimed that there has been an evolution towards increasing nominalization in scientific writing. For example: 1-The temperature increases sharply

Noun Verb Adverb

In this sentence the subject is a Noun and the verb a material process which may also be expressed as: A sharp increase in temperature

Adj Noun NA

In this sentence the verb ‘increase’ has been nominalized and the adverb ‘sharply’ has become an adjective in theme position.

Firstly, terminology and translation are characterized by their long tradition as applied subjects, in contrast to their recently established character as disciplines. Terminology and translation arose from the Firstly, terminology and translation is characterized by their long tradition as applied subjects, in contrast to their recently established character as disciplines. Terminology and translation arose from the practical activity caused by the need to express specialized thought or to solve comprehension problems. Second, (...), both translation and terminology try to advance in the reaffirmation of their status as disciplines by placing emphasis on the features that distinguish them from other subjects and adhering to theories which sustain their autonomous nature as fields of knowledge. Thirdly, terminology and translation are interdisciplinary fields having a cognitive, linguistic and communicative basis. (...) Besides, both subjects are information and communication areas which have knowledge categories and units expressing them that are projected on communicative acts immersed in particular social contexts. Last but not least, language is the essence of both disciplines.

CONCLUSION

To sum up, scientific texts are texts addressed to certain community either specialist in precised field where they share the same knowledge or educated and non-specialist people who prefer reading and following science. These characteristics can be divided into two types linguistic features such as passive voice, present tense etc. besides to extra-linguistic like the new usage of words or terms that bear a scientific meaning as well, in addition to the topic itself containing scientific information, therefore the translator faces two types of challenges ;linguistic and extra-linguistic difficulties .Basing on these features and challenges the researcher tries to find models and approaches dealing with the scientific translation problems.

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