Problems of translating specialized terms (the scientific term as an example)

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Sending :26/04/2021 date	Acceptance date:18/06/2021	date of **:28/12/2021** publication

Abstract

Scientific translation has recently become one of the most popular and widely types of translation related to science and technology, at the same time it is considered the most difficult. It requires a person who masters the source and the target languages, who is specialized in the field that the text deal with, as well as in-depth scientific research. One of the most striking difficulties faced by a scientific translator is scientific term, which is an objective term that is clear, precise and consistent. It's a blade that's hard to decipher.

To translate these scientific terms, the translator relies on direct methods such as borrowing, copying and amplification, and indirect methods such as equivalence and modification. However, it faces other difficulties, such as new terms, multiple scientific and descriptive terms. Therefore, it is necessary to develop terms appropriate to the rules of the target language, i.e., heritage, derivable, single-meaning, etc.

Successful translation requires appropriate interviews of scientific terminology.

Keywords: Scientific term; scientific translation; specialized term; specialized translation

ملخص

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أضحت الترجمة العلميّة من أنواع الترجمة الأكثر رواجا واستعمالا في الآونة الأخيرة كونها تتعلّق بالعلوم والتكنولوجيا، وفي نفس الوقت تعتبر أصعبها. فهي تتطلّب شخصا ملما باللغتين الأصل والهدف وعارفا بتخصص ومجال النص المراد ترجمته، بالإضافة إلى بحث علمي معمّق. ومن أبرز الصعوبات التي يواجهها المترجم العلمي هي المصطلح العلمي، الذي يعتبر لفظ موضوعي يتّسم بالوضوح والضبط والثبات.

ولترجمة هذه المصطلحات العلميّة يستند المترجم إلى طرق مباشرة كالاقتراض والنسخ والتضخيم، وطرق غير مباشرة كالتكافؤ والتحوير. ولكن مع هذا، فإنّه يواجه صعوبات أخرى كالمصطلحات الجديدة، والمصطلحات متعددة الدلالة والمصطلحات العلميّة والوصفية. ولهذا يضطرّ إلى وضع مصطلحات تتناسب وقواعد اللّغة الهدف أي مصطلحات تراثية وقابلة للاشتقاق وذات دلالة واحدة...الخ.

الترجمة الناجحة تتطلب إيجاد مقابلات مناسبة للمصطلحات العلمية.

الكلمات المفتاحية: المصطلح العلمي، الترجمة العلمية، المصطلح المتخصص، الترجمة المتخصصة

1. *Introduction*

The diversity of languages and cultures have caused people to be very problematic, as they do not understand each other. That is why they need to find a way to graduate from what was urgently needed, and they have been guided by translation. This latter was present in all fields, not only in one area or in particular time and place, but also in several areas, such as literature, history, medicine, etc.

It is a complex field, which has always been difficult to visualize, and the answers to questions in its scope raise several issues, including the question of specialization in translation. Human science and knowledge have evolved dramatically and rapidly. Specialization has become one of the most important features, not only in the public domain, but also in disciplines that have increased their technology.

Here, we recall the specialized translation that was strongly imposed in this era, owing to many considerations; the most important is the conquest of science and technology in our daily lives. Only they can elevate the nation to the highest echelons of progress and development, and keep pace with civilization and technology, but there are always problems and obstacles that deal with the translator and that need to be overcome.

Given the great importance of this topic, I will address through this research, which is subtitled as "The problems of translating the specialized term (The example of Scientific Term)," the problem of translating specialized texts. What are the mechanisms or methods that the translator uses to find appropriate equivalents to the scientific terms found in the text?

For more details about the subject, I will address:

1. Definition of translation
2. Scientific translation: conditions and characteristics.
3. Its problems.
4. Scientific term.
5. Specialized language.
6. Terms and principles of his status.
7. Ways to translate it.
8. Obstacles of its translation.

2. *Definition of translation*

2.*1 Lexically*

There are many linguistic definitions of translation. We just mention the most important ones.

According to Lissan Al Arab of Ibn Mandour, "The word translates from one language to another, and the person is called the translation, which explains the speech." (Mandour, 1992)

In the Crown of the Bride, "Translated the translation said to be transferred from one language to another and the verb signified the authenticity and weight (of the word) of the original word; Ibn Qutaybah said that the translation does it from stoning." (Zubidi, 1994)

In the Al Mohit Dictionary of Ferroz Abadi, the word "transliteration" appears in the Meme chapter: "The originality of the two translations as sphinx, infidelity and erection of the tongue, translation and translation of the word, and the verb as a distraction." (Abadi, 2008)

According to another definition, translation is the transmission of words from one language to another, such as the translation of a book into Latin and a literal translation. Explain, interpret and translate in real time any immediate and oral interpretation and translator of who transfers speech from one language to another. "(Dictionnary of modern arabic language, 2001)

2.2 *Contextually*

There are multiple and conflicting definitions, but most agree that there are two languages: source language and target language, "Translation is the expression of what is written in the first language (the source language) into the second language (the target language), i.e. translation is the expression of one or several ideas by words. This expression is based on two interrelated elements that are not third and the former cannot exist without the latter. The two elements are:

The first element of the translation process is the "idea" of words in the target language, that is, the meaning of those words. "

The second element is the "form" of words in the source and target languages. We mean, in the form here, the combination of sentences, rhetoric and rhetoric, which are convergent, contradictory, parallel and bound by the rules of the language (Encyclopedia of professional translator)

This definition emphasizes the need for parity between the language of the source and the language of the target.

"Translation is the expression in another language or target language of what is expressed in another source language while retaining semantic and stylistic equations." (T.Bell, 2016)

Other definitions have focused on new elements, including influential external factors, such as cultural relations among peoples, as well as moral and emotional factors that clearly influence the translation process, which we have found in this definition.

Translation is the process that seeks to equate two texts expressed in different languages, that are always and inevitably dependent on the nature of the two texts to some end and on the relationship that exists between the culture of two peoples and the moral, cultural and emotional essence and are dependent on all possibilities of the times and the place of return. (Lederer, 2012)

The last definition we conclude is one that focuses on the role of translation in human communication: "Translation is one of the oldest human activities of human societies across their linguistic and cultural boundaries. (Dickins, 2007)

From all these stylistic definitions, we conclude that translation is a transfer of speech, whereas speech in one language is transformed by translation into another.

- Translation is required to fulfill all the meaning and purposes of the original and therefore transliterated words are met by the word appropriate between them and the original meaning of the text.

- The meaning of translation is limited to the transmission of words from one language to another.

- The translation is understood to be in place and to take its name.

Translation cannot be regarded as a process associated with weak intellectual creativity in the translated culture. It is a human heritage common to humanity, and an intellectual process whereby people recognizes other cultures.

3. Scientific translation

It means the translation of basic or pure sciences: books of mathematics, physics, chemistry, biology, earth science (geology), botany, zoology, applied science books: medicine, pharmacy, engineering of various types, and books of technology and techniques" (Khoury, 1989)

The difficulty of translating these types of texts is a major obstacle: the translation of the term.

Dry with no place for aesthetics, texture and decoration, the fear is that the meaning will be lost in these bowls and colors.

Translation of the term is difficult because the language of invention is the language of the inventor.

Specialized gazetteers have come as an attempt to solve this problem, but they have further complicated it.

One of the key measures in specialized translation is

- Distance from aesthetics

- Binding on objectivity

- Strict and honest translation

3. 1 Its Characteristics

Specialized translation in general and scientific translation in particular, is one of the most difficult in terms of translation, which the ordinary reader cannot understand.

The scientific translation means "translation of basic or pure science, books of mathematics, physics, chemistry, biology, earth science (geology), botany, zoology, books of applied science: medicine, pharmacy and engineering of various kinds, and books of technology and techniques. (Khoury, 1989)

The difficulty of translating these types of texts lies in the fundamental obstacle of translating the term: these texts are dry and have no place for aesthetics, texture and decoration, and fear loss of meaning.

3.2 Conditions of scientific translator

A scientific translator is confronted daily with an enormous amount of scientific terminology, and needs to find or interview them in the target language.

* Full knowledge of devolved language and devolved language (origin and purpose).

* Be a specialist in the scientific material he translates.

* Investigate the concept and meaning of the scientific substance before attempting to translate it.

* Translation of universally accepted terms.

* Use and resurrection of the Arabic language on the condition that it has the same meaning or meaning close to it.

There are also skills and competencies to be acquired by the specialist translator, summarized by Daniel Gouadec as follows:

Initial competencies: Knowledge of working languages, knowledge of documentary research techniques, translation techniques and strategies, scientific editing, knowledge of review and self-assessment techniques, extensive metaphor knowledge, technical means of translation such as the use of translation notes and terminology documentary cards.

Wide access to translation techniques similar to the use of translation notes and syllabic documentary cards.

Technical competencies: It consists of knowledge of specialization and knowledge of specialization skills. Knowledge of specialization is knowledge of scientific concepts, laws, norms and regulations in the field of specialization, and knowledge of specialized skills is the requirement of the scientific field.

Audit and revision competencies

Information skills: This is intended for the translator to be aware of how to use computers, writing techniques, databases, search engines and translation notes. (Gouadec, 2006)

4. The characteristics of scientific texts

Since the specialized translator deals with specialized scientific texts and terminology, it is understood in the original language and in the formulation and editing of the language; the aim is to comply with its characteristics, which are the same as those of specialized scientific translation:

* Clarity: It is meant to be characteristic and capable of expressing and demonstrating the event and phenomenon in journals of competence in terms and words with which different or opposite meanings cannot be understood.

* Accuracy: It consists of precise vocabulary and words that leave no doubt as to the meaning.

* Speed: What is meant here is not the speed of the specialized conversation, but the ability to express the event and phenomenon in areas of competence with precision and clarity in the shortest way, that is, with as few vocabulary and words as possible, without prejudice to meaning and concepts.

* Term density.

* Simplicity of grammatical combinations.

* The complexity of nominal combinations: since specialized scientific terms frequently exist, relations among them predominate; hence the complexity of nominal combinations.

* The clarity of the phrase and the monotony of meaning: The specialized scientific text relies on direct methods of connotation; it does not resort to methods of suggestion, reference and coding; it avoids them as much as possible; and it does not carry multiple meanings, but only one meaning per phrase.

4.1 Its problems

The translation of specialized scientific texts from the foreign language into Arabic is not easy. We cannot deny that the most important problem facing the translator when translating these texts is the problem of scientific terminology, namely Mile.

- Lack of scientific terminology to keep up with science and technology.

- Much of what is available in scientific terms differs from one Arab country to another and sometimes from one translator to another.

- Lack of adherence to standardized methodologies for the formulation of specialized scientific terminology.

- In their formulation of scientific terms, some have sacrificed a basic function of language in order to be Arabic in origin, which in most cases has been complex and impractical. Excessive caution may diminish our scientific contributions.

Language problem: There are different problems of its kind: it addresses the translator of the scientific text because its purpose is not as aesthetic as the translator of the literary text. It seeks to convey information, objectivity, precision and honesty in the expression of the idea that it wants to convey, with due regard Arranging the elements of the text in the manner originally arranged, even if it conflicts with the beauty of the method and the logic of the language transmitted, and uses symbols, terms and abbreviations that directly affect the target.

For **"Silva Gameiro Pérez"**, specialized texts are characterized mainly by the use of so-called "specialized languages," and identify five levels of skills that a professional translator should be able to achieve, namely information on the subject area, the possession of special terms and the ability to acquire documents (Perez, 2003)

According to some, documents can be obtained from the following sources: Abbreviations, Encyclopedias, Abbreviations of Method Study, Text Editing, General Journals and Specialized Journals, Journals of Research Summaries, Conference Transcripts, Doctoral and Master's Theses, Consultations with Specialists and Activities of Specialists (Labador, 2003)

5. Specialized language

5.1 Definition of specialized language

"This is the language in which a range of scientific specifications are available, the most important of which is:

-The tendency to be accurate.

- Provide shorthand.

-The clarity that makes the facts clear and helps to understand.

Simplicity and distance from thumb-delivered adherence. "(Belaid, 2003)

The definition of scientific language, and thus their distinction from the general language, is based on the cognitive principle that specialized language is a vector of special knowledge.

The specialized language derives its specificity from the context in which it is used, the subject matter it wants to convey to a private audience, and the intentions and conditions in the communication process.

« Les langues de spécialité utilisent dans une large mesure, les mêmes procédés de formation des mots que la langue générale. Les néologismes sont rares, au contraire, les langues de spécialité utilisent souvent des mots existants. C'est ainsi qu'elles recourent à la dérivation, à l'emprunt, à la rédaction et à la composition. » (CST)

"Languages of specialty use in, a large extent, the same methods of word formation as the general language. Neologisms are rare; on the contrary, specialty languages often use existing words. This is how they resort to derivation, borrowing, writing and composition. »

5.3 The term in specialized languages

Talking about the location of the term from the specialized language is based on a number of issues aimed at revealing the relationship of the term to all components of the specialized language, and highlights the central role of the term in the distinction of the general linguistic system, which is the basis for such discrimination. The location of the term in the special language may be considered in terms of the following terms:

A/Marvel level: The term can be identified from the specialized language as representing its lexicographical aspect. The terminology is the verbal asset that provides the specialized language with the language it needs to name concepts and link them to what they refer to within a knowledge system. There is, however, no disparity or distinction between the terms within the lexicon, which are linguistic evidence based on the nomenclature of concepts, and what gives to the term its semantic value and degree of competence is its use within the special linguistic system.

B/semantic level: The most important characteristic of the relationship between the term and the specialized language at the semantic level is the influence exercised by the monolithic principle of natural language, as it departs from being a sub-language of the natural language by promoting a monolithic relationship between the term and the concept.

C/Contextual level: Context is the term in which the term appears in the text, and we distinguish between three types of context as the location in which the term is occupied:

-In Descriptive context the term is characterized as an adjective or specific device.

- A limit in which the term occupies the location of the description.

- Descriptive death penalty to focus on the description of the term in the abstract, on the form of what it refers to, on how it is used, on its relationship with other terms, or on why it is placed alone. (WHO, 2005)

The context thus plays an important role in the specialized language, highlighting how the term is used in the scientific text, and determining its definition and relationship with neighboring terms, but the language texts specialized in classical terminology were only a space for identifying terms and classifying concepts regardless of how the term is used.

6. Scientific term

Scientific terms that sweep through all languages have been developed in response to new concepts and concepts in branched knowledge fields. Because they require precision and objectivity in the study of cosmic and human phenomena in order to develop sound scientific laws and modern techniques, and to ensure the continuation of global scientific and intellectual progress, the language chosen to express scientific ideas had to be clear, concise and precise in order to promote them easily among scholars and intellectual scientists. The scientific term finds its place and its concept is defined only in the framework of the system of concepts within the single discipline. (Hidjazi, 2018)

First, the classification of the term in a given science is a necessity and hence its concept can be defined by the semantic system associated with a specialized scientific field.

In its modern concept, the term science is based on a single scientific meaning. It is a principle that must be adopted by specialists, but unfortunately, they often seem to ignore it, and they begin to use synchs that run counter to the nature of scientific writing and express one concept in many terms.

It is not uncommon, then, that the term plurality suffers and the reader is confused at which term it works, as well as the difficulty it has in understanding the readable.

Therefore, the scientific term is like any other; a communication device to express a meaning, idea or subject matter in a particular area of competence is an objective term that is clear, precise, consistent and non-linear. It is referred to in two terms: term and term and means words that have specific connotations common to a particular community in a particular field or field, as the meaning of the term varies from one domain to another.

Others regarded it as "a word or set of words from a specialized language [scientific, technical, etc.], inherited or borrowed and used to accurately express concepts and denote specific material objects." (Djaberi)

It is clear from this definition that the term is not limited to a word, but may be a set of words.

It is like a code that is difficult to decipher, and denotes concepts or things related to a branch of science or technology. It is distinct from other terms. This is the way it is written and the language it is, and we ask for it well in the technical documents of all kinds.

6.1 Scientific basis of the term

The purpose of the term work is to access different science from its broad section, and scientists have come to agree that the term is a term to name a concept. This concept is known in a particular science. The term acquires the scientific character only from the features of the science in which it originated.

The scientific basis of the term is: (Yaaboudi, 2006)

* Performing the functions for which he was created, which are diverse, but whose task remains essential: "naming the concept."

* Formed because of the agreement of specialists in a given field to express new concepts, D is called meaning. While the relationship between the dal and the meaning is arbitrary as developed by Dossier, the relationship between concept and meaning is unstable. This means that they are always exposed to expression based on rapid and increasing cognitive progress.

* Transparency of its connotation as the precise term and the clear meaning of the term are characteristic of the scientific language, and the more the definitions of the term, the more transparent it is, and the less it is.

* Codification of its branches and derivatives generated because of its circulation among jurisdictions and the evolution of its various uses.

* There is a relationship between linguistic and terminological meaning, so it is not right to be in two semantic directions that are as far apart as opposite.

* Occupy a place within the term group by reference to its scientific value, which determines its primary or secondary location within a system.

* Define the rest of the terms that relate to it semantically, either by syntax or by anti-Semitism.

6.2 Conditions and principles for its establishment

Specific statement, and to distinguish concepts of things.

They realize the levels of thought. It is the language of understanding between scientists, intellectuals, researchers and scholars. It serves as a window for different science and knowledge. Although discoveries, inventions and literature are the first face of scientific civilization, scientific terms are the second. The term has kept pace with all scientific developments and cultural leaps in the past and present.

Specialists have developed some of the principles on which scientific terminology focuses:

* Proof of the meaning of the origin of the term in Greek and Latin before the placement of the Arabic equivalent.

* Try as much as possible to attach every meaning to a single term in a single field.

* Preference for a word that allows for derivation over one that does not, by preference for a single word because it allows for derivation, addition, accessory and plural.

* Attempt to choose the closest meaningful vocabulary from the foreign term.

* Preference for heritage terms over generator.

* The correct common words and Arabic words are preferred to Arabic.

* Avoid slang except for necessity and should be indicated in parentheses.

* Take into account expressed and translated terms agreed to be used by specialists.

* In the case of coincidence, the field of scientific significance should be determined and the corresponding term selected.

* Subjugation of the word to general language rules.

6.3 Ways to translate the scientific term

Mohamed Rashad Al Hamzawi identified translation techniques for terminology based on the Canadian study of "Vinay and Darblenet," as follows:

Direct translation:

It means transferring from the language of origin to the language of purpose, either for structural or descriptive compatibility, and it is not even compatible with Arabic, which is often the result of gaps and spaces found in the translated language.

* Metaphor (borrowing) is the process of converting a word in the text of the source language into the text of the target language, used in the case of new concepts that the target language cannot express.

* Copies: It is a kind of private borrowing by taking the phrase from the original language and directly translating the need for a new and seemingly strange use.

* Amplification, in a physical sense, is the case where the target language uses more words than the original language.

* Condensation, which is similar to amplification with increased epithets.

Indirect translation: It contains:

* Parity: It is the expression of the language of origin with a different expression.

* Compositions: It is a special equivalent of one language to perform a particular meaning in another.

* Modification: It benefits from renewal and the break between old and modern concepts and derives its terminology from established gazetteers, but rather from the fact that translators are placed to perform new concepts.

6.4 Problems of translating the scientific term

Translation of new terms is the most difficult step in scientific translation, as well as other obstacles to the translator, the most important of which are:

A/Multiple terms: They mean terms that have different meaning depending on their context and thus pose a threat to meaning, as the meaning is defined by the context in which it appears. (Newmark, 1988)

B/Scientific and descriptive terms: Another difficulty for the translator is to distinguish between scientific and descriptive terms. The original author may use descriptive terms to express a product or scientific phenomenon for three reasons.

- Product novelty or phenomenon and not yet named.

- Use the term as a synonym to avoid repetition.

I use the descriptive to meet him with another term.

There is no doubt that the translator is looking for equivalent interviews with both scientific and precise descriptive terms. It often tends to translate descriptive terms into more specialized scientific terms in order to highlight its efficiency. This choice is more appropriately made if the original author uses descriptive terms because of his ignorance or lack of diligence, or if the appropriate scientific term is absent in the original language, especially if a term that is odd in the original language but is known in the target language culture, for example: "Smooth surface" in English translates in French as "surface lisse" while corresponding. « Forme hydro dynamique ».

7. CONCLUSION

The subject of specialized translation, the scientific term, I ask a lot of ink. There have been several conferences and meetings, each of which has its own purpose. Some of them are aimed at theorizing translation. Others seek solutions to the problems and obstacles of translating and producing the Arabic term, all of which contribute to the service of the Arabic language.

The main purpose of most specialized texts and their translations is primarily to transmit scientific and technical information.

- Any disruption in the development of scientific terms, lack of consideration of concepts or lack of prior full coordination in the development of such terms leads to confusion, disorder and lexicographical disorder that have an impact on the

organization of science, which is completely contrary to the alphabets of the terminology of precision, clarity, non-interference and confusion.

- Arab scientific terms must be standardized in accordance with a common policy of status, evaluation and selection to which all Arab countries are committed, having themselves participated in their design, discussion and approval.

- Authors, translators and lexicographers are encouraged to produce, compose and create.

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