

Challenges in Translating Technical Texts

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ABSTRACT

This study aims to show the challenges that translators face in translating technical texts such as academic texts in archaeology. This study is based on translating a research titled "The Acheulian culture in Jordan 1500000-90000" by Dr. Mujahed al-Muhiesen, published in *Abhath Al-Yarmouk* from Arabic to English. The text was translated by the researchers. During the translation, the researcher has encountered some lexical and syntactic problems and tried to overcome them using several strategies. Thus, this article recommends that translators should have the knowledge regarding such texts to be faithful to the text and convey the same message. The study also attempts to contribute in improving the translation of technical texts, in general, and the ones related to archaeology, in particular by making the translators familiar with different problems which affect the translation and how it could be dealt with.

Keywords: Archaeology, Problems, Translation, Technical Texts.

1. Introduction:

According to Newmark (1981) translation transfers an idea of the source language (SL) into the target language (TL). Translation has been an important factor in life, starting from 3000 B.C, during the Egyptian old kingdom, when inscriptions of two languages have been found (Newmark, 1981:3) to the discovery of the Rosetta Stone and translating it by Champollion, which was the key of translating scripts for the entire 3000-year-old Egyptian dynastic tradition, till today, where the role of translation has increased, becoming a part in every major and transferring the knowledge from one culture to another.

Technical Translation, in general, academic translation, in particular, is very important, where it is considered a bridge between scholars from different cultures which allows them to share their knowledge. It also helps in finding any academic plagiarism. Such translation usually encounters different types of problems, mostly lexical and syntactic problems. This study will discuss the problems that may occur during the process of academic translation, find solution to them and highlight the importance of the skills required by translators during this type of translation. These problems vary in their difficulty. One of the main difficulties faced by translators is the difference in the nature of the two languages. Another problem lies in the terminology used in such texts.

The significance of the study comes from the fact that very few studies have touched upon problems in the translation of technical texts. It is true that researchers have dealt with this topic in general, but few of them dealt with problems in the translation of academic texts. Thus, it became a marginalized topic. The study will try to accomplish two functions. First, it is assumed that the study will be beneficial to translators, in general, and translators of academic texts, in particular, through pin pointing the problems faced in the translation and offering possible solutions. Secondly, the researchers hope that such study will be of a great help in the translation of Arabic Academic texts to English. Finally, tries to answer the following questions:

1. What are the main problems in translating texts related to Academia?
2. How can we convey the same message during the translation from Arabic into English?

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3. How far has Archeology related dictionaries has been neglected?

In order to answer these questions, the researchers have translated a journal article entitled the “the Acheulian culture in Jordan” (Al-Muhiesen 1993:153-181) by Dr. Muhjahed Al-Muhiesen published in *Abhath Al-Yarmouk* from Arabic into English. After that a discussion has been made to highlight the lexical and syntactic problems and how they can be solved during the translation. It also shows the importance of translating specialized terminology and keeping it updated.

2. Equivalence in translating technical texts:

One of the most important issues discussed in translation in general is the issue of equivalence and how the translator can transfer the message from SL into TL and to what extent he/she should keep the form as “translation without equivalence of certain degrees or in certain aspects, the translated text cannot be regarded as a successful translation of the original text”(Yinhua 2011: 171).

If we take the text type we are translating into consideration, then the type of equivalence and the used strategies will differ. For example, if we are dealing with a literary text then the semantic translation in which the translator “attempts to render, as closely as the semantic and syntactic structure of the second language allow, the exact contextual meaning of the original” (Newmark 1981:39). This means the content is kept however the form itself is adopted according to the target language. Meanwhile, communicative translation is used for technical texts where we keep the form and the content of the source text as much as possible by “attempting to produce on its reader an effect as close possible to that obtained on the reader of the original.” (Ibid:39).

During 1970s, Reiss has proposed the text type theory, which is a functional theory that focuses on the equivalence of the text itself, therefore, she divides the texts into four types; informative, expressive, operative, and audio medial. Each type of these texts has a certain way to be translated, for example, the informative text, in which technical texts fall under should be translated “as plain prose, without redundancy and with the use of explanation when required” (Reiss (1977/1989:108-109) Cited in Munday 2016: 114), so it should be figurative free and direct.

Technical text represents a wide variety of documents in all the skilled trades, which can be divided in to four groups: reports, documents for the purpose of education such as theses and journal article, patents, and operational manuals. (Badinski 2001:1). Due to the rapid use of this type of writing especially the Academic writing, its translation became important. Thus, it reaches a big number of undergraduates, graduates, and lecturers.

Even though this writing shares some similarities with other styles of writing, it also has its own features which should be taken into consideration during translation such as the terminology, the structure, and using objective pronouns. These characteristics might cause the translators some problems if he/she lacks the knowledge in dealing with such texts.

3. Distinctions between Arabic and English language:

In order to state the problems encountered during translation, it is better to mention some differences between English and Arabic language. Both languages are from different families. The function of items in the Arabic sentence is marked by case ending, meanwhile, word order in English marks the functions of groups in the sentence. Subject and object are identified by position (Awawdeh 1990: 29). The order of the sentences in each language differs from another. The word order in Arabic “does not change the meaning, because it depends on the case ending, for example, if we say “زار علي المعلم” and “زار المعلم علياً”, then the subject changes according to the case ending in the name “علي” in each sentence. However, if we change the word order in English, then the meaning of the same sentence, for example, “I read a book then a magazine” and “I read a magazine then a book. Thus, the action in each sentence has changed due to changing the word order of “book” and “magazine”. (Al-Ajrmi 2011, p. 27).

Adjectives in Arabic follow the noun they identify such as “المنطقة البازلتية” and “القطع الصوانية”, unlike English, in which adjectives precede the noun as in “volcanic area” and “flint like artifacts”. In English, there are indefinite article

and modal verbs which do not exist in the Arabic language.

4. Problems in translation

During the translation of "the Acheulian culture in Jordan", the translator faced some problems related to syntax and lexicon.

4.1 Syntactic problems:

Syntactic problems or grammatical problems, in which parts of speech such as subject are allocated in sentences, and how different meanings are bound together. The problems can be summed as the following:

a. complex sentences

In complex sentences, there is one main idea and one or more subordinate ideas. Complex sentences are frequently used in academic texts in order to make ideas and information clear and understandable to the reader. However, if the writer did not use this type of sentence properly, or if the translator did not understand it, it will lead to ambiguity, for example:

"كانت منطقة الحسا التي تتمثل ببيئتها الحالية بغابات البحر الأبيض المتوسط والتي يطلق عليها اسم إيران-تورانيون مجالاً للمسوحات الأثرية منذ عام 1979-1983"

The ambiguity in the example above lies in the referring of the second relative pronoun "التي", which originally refers to "الحسا" not "غابات البحر المتوسط الأبيض".

The length of the sentence may also lead to a problem, but it can be solved by dividing the complex sentence into simple sentences, which helps the target reader understand the idea. Such as the aforementioned example would be translated as into:

" Al-Hessa had been a field for archaeological surveys since 1979 till 1983. The current environment of the area is similar to the Mediterranean forests which is called Irano-Turaniann"

b. passive voice:

In academic texts, the passive voice is often used to show that the doer is unknown or unimportant, and that the action or the fact is more important. The passive voice may cause a problem during the translation from Arabic into English, due to the fact that Arabic grammar does not use it frequently, unless the doer is unknown. So, the translator should take into consideration during the translation process whether the action or the doer is more important in the sentence. For example:

"وتبعاً لذلك قسّمها الجغرافيون إلى أربعة أنواع من الصحارى"

Due to that, the area was divided into four types by the Geographies

In the aforementioned example, the passive voice is used to indicate that the action (dividing the area), is more important than the doer.

c. Prepositions:

A preposition is "a word, usually short, that does not change its form and that, by joining with a noun object, helps bring the strength of the noun into the sentence to act as an adjective or adverb" (Marius and Wiener, 1988: 803). Prepositions may consist of one word or more.

In Arabic, a single preposition may have different meanings that can be only distinguished through the context in which they occur. (Obeidat, 2001, p. 58). This may lead to a problem for the translator who does not have a good background concerning the meanings of Arabic prepositions. For example, the preposition "ب" has different meanings, which can be identified from the context:

"وجدها في متحف الآثار الأردني يعمان"

Were found in the Jordan Archeological Museum in Amman

"تدعونا مقارنة هذه الصناعة بما هو موجود في المنطقة"

Comparing this industry with what is in the area

In the first example, the preposition "ب" indicate the meaning of a place adverb, however, in the second example; it

gives the meaning of accompanying.

d. Multiple modifiers:

In Arabic, the modifier comes after the noun, however, the modifier precedes the noun in English. This issue may lead to a problem while translating them. The following are examples of modifiers after nouns:

"الترسبات النهرية الحصوية"

Gravel-fluvial sediments

"ترسبات غرينية صفراء اللون"

Yellow colored, alluvial sediments

e. Conjunctions and cohesive devices:

Conjunctions and cohesive device are used to unite elements of the text, in order to accomplish cohesion and coherence in it. However, some devices are used frequently in the same text, but have different meaning, such as the device "أما" in the following examples:

"أما المواد الحجرية المكتشفة، فدرستها لورين كوبلاند"

As for the discovered stone material, they were studied by Lorraine Copeland

"أما في منطقة الخرانة فعثر أثناء المسح على عدد من المواقع"

Meanwhile, during the survey in Al - kharraneh area, a number of sites were found

4.2 Lexical problems:

Most translators encounter in lexical problems, which are related to words and vocabulary. These problems occur due to the wrong choice of words by the translator. Problems under this category are divided into three subcategories:

a. Wrong choice of lexical items:

The wrong choice of lexical items refers to the wrong use of a TL lexical item with a meaning that completely differs from the SL equivalent (Obdiate, 2001, p. 87), which leads to a message distortion. Generally, this problem occurs when the translator does not know the meaning of the SL lexical item, or cannot decide which meaning is the appropriate one for the context. The following examples try to provide the translation which might occur to translators who do not have enough knowledge in the terminology then provide the correct equivalent.

"قام جاري رولفسون بعمل حُفَرٍ اختبارية في الموقع"

Garry Rollefson did experimental holes in the area

In the example above, there was a misunderstanding in the lexical item "حُفَرٍ", which should have been translated as:

Garry Rollefson did experimental pits in the area

b. Archaeological terms (Specialized Terminology):

Academic texts have a lot of terminology. The sample given in this study is concerned with Archaeological terms, which may lead to a problem, if the translator doesn't have any knowledge of the topic. Such as the translation of "الترسبات النهرية الفيضية" in the example:

"عثر على بعض الأدوات داخل الترسبات النهرية الحصوية"

It may be translated as:

Some tools were found in pebble-river sediments

The translation above is incorrect and it should be translated as:

Some tools were found in gravel-fluvial sediments

c. Geographical names:

Geographical names refer to the names of countries, cities and towns. Geographical names do not generally pose a serious problem, however, the researcher thought that this it should be mentioned, hence that a lot of geographical names are mentioned in the text. The problem lies between keeping the names as they are or providing the equivalent in the target language.

5. Strategies used in technical translation:

This section deals with the strategies used in technical translation. These strategies were employed by the researchers as a mean to overcome the problems encountered during translation. Only two examples of each strategy will be used for the sake of brevity.

a. Literal translation:

During the translation of the text, the most frequent used strategy was literal translation, where it involves the conveyance of denotative meaning of phrases and sentences, in a text from one language to another (Shunnaq & Farghal, 2011, p. 23). However, one should not mix between literal translation and word order as well as the primary meaning of all the SL word order as well as the primary meaning of all SL words, into the translation, and it is normally effective only for brief simple neutral sentences (Newmark 1988, p. 69).

Literal translation was used in this text, in order to be faithful and accurate, and to keep the translator's objectivity during translation. For instance:

إن تصنيف العصر الحجري القديم في الشرق الأوسط مازال قيد السؤال"

The classification of the Paleolithic in the Middle East is still questionable.

Another example that shows that literal translation can be used in this type of texts:

"إن ترسبات دوقرة التي أُرخت بالدراسات الجيومورفولوجية ومقارنتها بتشكيلات اللطامنة في سوريا، وبتشكيلات برزين على نهر العاصي، وشنين على نهر الفرات تشير بشكل واضح إلى أن الأدوات الحجرية تعود للفترة الأشولية المتوسطة، وهي الأقدم في منطقة الصحراء الشرقية حتى الآن"

The Douqara sediments, which were dated in Geo-morphological studies and were compared with the Latmane formation in Syria, Berzen formation in the Orontes river, Chnine formation in the Euphrates, clearly show that the stone tools are dated back to the middle Acheulian period, the oldest in the eastern desert till now.

Due to the fact that literal translation was not enough in translating this text, other procedures were also used.

b. Transposition:

Transposition is the second strategy opted for during translation. It involves a change in the grammar from SL to TL (Newmark, 1988, p. 85).

Examples:

"أطلق على المنطقة البازلتية اسم الحرة"

The volcanic area was given the name Al-Harrah

In the example above, the SL verb "أطلق" was transferred into the noun "name" and can also be summarized into "entitled", the same goes for the next example where the noun "دراسة" was changed into a verb "studies"

"يتناول البحث دراسة فترة الثقافة الأشولية"

This research studies the Acheulian period

c. Transference:

This strategy includes transliteration, which relates to the transferring different alphabets from Arabic into English alphabets to be able to keep the same pronunciation and identity in the target text. The procedure can be mainly used to deal with geographical names in the text, like: **Tabun** **طابون** **Wadi al-Rutum** **وادي الرتم**. Some of the areas in the text are known in both cultures, where some of the Archaeologists have used these names in their own studies.

If names were translated literary then it will lead to misunderstanding, however, some of these names such as **غور** **Jordan Valley**, **البحر الأبيض المتوسط** **the Dead sea**, and **البحر الميت** **the Mediterranean**, already have an equivalent in the TL, so they were translated as **Jordan Valley**, **the Dead sea**, and **the Mediterranean**.

d. Lexical Synonym:

It involves finding a close word to the SL in the TL. For example, the word "مواتية" in the text has a lexical synonym in Arabic which is **مناسبة** so the word was translated as **"appropriate"**. However, we can't find complete synonyms in the language, for synonyms should not be used always because it may make the text weaker (Newmark, 1981, p. 83)

Besides the strategies above, the researchers have also used some dictionaries in order to solve the lexical problems

like monolingual and bilingual for general words and specialized dictionaries for the terminology used in the text. However, none of the specialized dictionaries were Arabic-English, so it was difficult to deal with them. Even the ones available are old and not updated.

6. Conclusions and Recommendations:

On the basis of the present study the researchers came up with the fact that translating technical texts can be challenging especially if you lack the knowledge in the topic you are translating. During the translation, they have face two main challenges related to syntax and lexicon. These challenges were overcome by using literal translation. The researchers thought it is the best way for translating such texts without distorting the meaning and can keep the same style of the source text i.e. informative, direct, and figurative free. They have also used translation strategies to deal with minor problems in the text, such as transliteration, transposition, and lexical synonymy.

One of the main challenges that also faced the researchers is the lack of information regarding Archeological terminology, as there were a few specialized dictionaries in this topic and the ones found were either translated into French or German or an old one and the terminology included is not updated.

Finally, and due to the importance of technical translation, in general, and Academic texts, in particular, the study suggests that the translator should hold a wider knowledge and good comprehension ability with good linguistic competence in both languages which will help in overcoming many problems. In addition to that, it is recommended publishing specialized dictionaries from Arabic to English and update them according to the development of the disciplines and that further studies should be done concerning academic translation.

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تحديات في ترجمة النصوص التقنية

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ملخص

تهدف الدراسة الى إبراز التحديات التي يواجهها المترجم في ترجمة النصوص التقنية كالنصوص الأكاديمية المختصة في علم الآثار. وقد اعتمدت الدراسة على ترجمة بحث الدكتور مجاهد المحيسن " الثقافة الأشولية في الأردن 90000-150000" الذي نشر في مجلة أبحاث اليرموك من اللغة العربية إلى اللغة الإنجليزية. وتم ترجمة النص من قبل الباحثين. ويشير البحث إلى المشاكل المعجمية والنحوية خلال الترجمة والأساليب والاستراتيجيات المستخدمة لمواجهتها. لذلك، ترتأي الدراسة امتلاك المترجم المعرفة في تلك النصوص للحفاظ على الأمانة وإيصال المعنى. كما تسعى إلى المشاركة في تطوير الترجمة التقنية عامةً، وتلك المتعلقة في علم الآثار خاصةً.

الكلمات الدالة: ترجمة النصوص، الثقافة الأشولية، المشاكل المعجمية.

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