



### Technical Translation(A case of Medicine)

Mohamed Ibrahim Osman Ahmed - Abbas Mukhtar Mohamed Badawi

Department of English –College of Languages-Sudan University of Science and Technology

#### Abstract

This paper sets out to investigate the role of technical translation in expounding and the meanings of medical terms and facilitate their accessibility for the students of medicine. So the authors in pursue of exploring the possibility of rendering English Medical Terms into Arabic has undoubtedly exerted strenuous efforts to realize their intended aim. To conduct the study, the authors adopted certain medical technical terms, explained their meanings in a glossary form and presented the students with an Arabic text to translate into English with the help of their medical glossary. The Arabic text is medical in content entitled **vaccination**. The aim of course is to find out the type of translation strategies the learners are expected to adopt to help them get along with the process of rendering.

**Key words:** vaccination, medical terms, medical translation, medical text, expounding

#### المستخلص:

تعرض هذه الورقة البحثية لدور الترجمة التقنية في شرح ومعاني المصطلحات الطبية وتسهيل وصولها لطلاب الطب . لذا فإن الباحثين قد بذلوا جهدا مقدرا لاستكشاف إمكانية تحويل المصطلحات الطبية الإنجليزية إلى اللغة العربية . لإجراء الدراسة ، اعتمد الباحثان بعض المصطلحات الفنية الطبية ، وشرحا معانيها في شكل مسرد وقدمتا للطلاب نصا باللغة العربية للترجمة إلى الإنجليزية بمساعدة معجمهم الطبي .النص العربي عبارة عن نص طبي في المحتوى بعنوان التطعيم .الهدف بالطبع هو معرفة نوع استراتيجيات الترجمة التي من المتوقع أن يتبناها الطلاب لمساعدتهم على التأقلم مع عملية الترجمة

#### Introduction

A number of factors have to be taken into consideration in opting for a suitable translation strategy. Most students would tend to choose the theory of equivalence. Undoubtedly, linguistic factors form the core of their option while there are of course other factors which can generally be termed as extra-linguistic factors. Most probably, arriving at the right or proper equivalent is not an easy task especially in a highly specialized medical translation.

In academic circles, technical translation has long been ridiculed as the *ugly duckling* translation. It is not only less attractive, but also devoid of the glamour that makes appeal to the interest of

practitioners. So, it is lacking the prestige other genres of translation do attain. Considered along an assessment paradigm, technical translation can be drifted to the bottom of the scale as just an exercise in specialized terminology. Indeed these factors viewed together led to considering technical translation for long a type of genre not to be reckoned with in the realm of applied linguistics.

So, the lower standard that technical translation has been linked to in the literature is lucid enough. In translation theory technical translation received little if no attention at all due to the fact of its poor status. It is looked down upon as an industrial or vocational type of translation.



This is supported by an enlightening survey by Franco Aixel (2004) who reports that out of 20,495 publications listed in the BITRA multilingual bibliography of translation research only 1,905 or 9.3% addressed technical translation.

Undoubtedly, there are some accomplishments made in this area of technical translation but has to a great extent connected with technical issues such as machine translation or translation memories. Having its origin deeply connected with commercial translation and technical communication has tipped the balance in favor of technical translation. It has suddenly been raised to the supreme and lucrative levels of fortune. This in turn made it more lucrative and complex area than it was formerly held to be.

One of the basic aims of this paper is to challenge some of the misconception long coupled with technical translation and describe fairly the reality of this type of translation. The authors will seek to relate technical translation to some common theories of translation in order to assume its appropriate position in the midst of the other types of translation. The rationale behind this is that technical translation as a linguistic phenomenon deserves to be given the attention due to it or be theoretically studied. Moreover, being neglected for such a long time, technical translation is linked to the theoretical tradition other genres of translation have enjoyed.

### **The Importance of Technical Translation**

Technical translation was roughly considered to amount annually to 90% of the world's total translation output (Kingscott 2002:247). This unexpected percentage is not that astonishing in

consideration of the significance related to the availability of technical information in diverse languages. This is particularly true when we think of the interest of international companies and the legislations passed by global organizations such as the Council of the European Union. All these laws and directives require comprehensive, effective and accurate technical documentations in wide range of global languages.

Despite the ever increasing demands for technical translation there are still those who stand so obstinately against technical translation importance, nature and the academia.

### **Some Misconceptions about Technical Translation**

To begin with, technical translation can be related to many theories of translation. In fact technical translation relates readily to technology and hence to technological texts. There are numerous disciplines that have technical nature and very specific terminology and definite nature such as economics, law and even religion. Technical translation deals with texts on subjects based on applied knowledge from natural sciences.

One of the factors that actually lowered the status or value of technical translation is that it is intensely connected with terminology.

### **The Reality of Technical Translation**

Having considered the diverse multiple misconceptions about technical translation, it is worthwhile to reflect on the truth behind technical translation. The researcher seeks to describe the reality of technical translation in a professional context, to describe what it is that technical translators do and what factors affect their work.

### Scientific vs. Technical Translation

Technical translation should not be confused with scientific translation as they are two independent types of translation. However there are those who treat these two realities as one entity. Despite the obvious connection between the two, i.e. they both deal with information based, to varying degrees, on the work of scientists, scientific translation is quite distinct from technical translation. Certainly, they both contain specialized terminology and, on the surface, deal with complicated scientific subject matter (to an extent) but it is all too easy to overestimate these apparent similarities at the expense of other, more compelling, differences.

Scientific and technical translation, therefore, is a generic term which is used to refer to pure science, applied scientific research and technology. But it is not just the subject matter that distinguishes scientific from technical translation. Technical translation (and technical communication, which will be covered later on) can be characterized at a basic level on the basis of:

1. Subject matter
2. Type of language
3. Purpose

### Terminology Management

As with regards to the issue terminology management Cabre (2003) argues that..

“Terminology presupposes a need for all the activities related to their presentation and transfer of specialized knowledge such as technical translation, the teaching of languages for specific purposes, technical writing, the teaching of special subjects, documentation, special language engineering, language planning, technical standardization, etc. We note that all professions dealing with special

knowledge need terminology. This is obvious: terms, in their widest sense, are the units which most efficiently manipulate the knowledge of a particular subject”.

Therefore, technical vocabulary or terminology should be viewed as an end in itself as it is required to add to the product in a way that brings about satisfaction of customers. Taking into account the recipients and the different ways in they use the product, technical translators have act towards realizing this special need by providing the best type of rendering that reconciles with the functions of the said product.

Concerning computer terminology and jargon, Corbolante, et al. (Cited in Wright et al., 2001) reiterates

“the continuous development of computer technology also results in the introduction of new concepts that require naming and consequent equivalents in the target languages, which means that terminologists and translators must coin new terms more frequently than ordinarily common in other, more stable domains.” (p. 516)

Some linguists believe that when a software application is transferred from the SL into different target languages (TLs), it might also require considerable degree of localization. According to their views, there are many problems such as language- and culture-specific problems, and technical requirements that should be resolved in translating law terminology from SL to TL.

### Theory in Technical Translation

Technical translation, like translation in general, has both benefited and suffered as a result of the work of translation theorists.



In the past 40 or so years a superfluity of theories, models, approaches and ideas have been circulated seeking to explain, rationalize, analyze and describe the translation process. Technical translation has, however, been largely omitted from much of this work and is rarely dealt with explicitly. Rather, it is for technical translators themselves or those academics who feel strongly enough about this species of translating to try and see how the “mainstream” theories can be related to the practice of technical translation at the coal-face, as it were. More often than not, the results are disappointing. Not because technical translation is inherently unique and challenging (although it is) but because translation itself is as elusive and mercurial as ever and there seems to be a real collective mental-block preventing a clear understanding of what translators actually do. But what are our options? Do we want a theory of translation that is sufficiently flexible and general that it can be applied on at least some level to all types of translation but which will not provide any concrete answers or insights? Or do we want highly specialized, narrowly focused theories that are so rigid and unyielding that they either exclude vast swathes of translation activity or come crashing down around our ears at the first sign of an anomalous translation situation?

When trying to explain or situate technical translation within a theoretical framework it is often extremely difficult to know where to begin. This is made all the more problematic when we consider the shockingly diverse range of approaches, models, rules and theories. This can be illustrated using a much

quoted example from Savory (1957:49) who compiled the following list of “rules” of translation from a variety of “authoritative” sources on translation which state that a translation:

- must give the words of the original
- must give the ideas of the original
- should read like an original text
- should read like a translation
- should reflect the style of the original
- should possess the style of the original
- should read as a contemporary of the original
- read like a contemporary of the translation
- may add to or omit from the original
- may never add to or omit from the original

Certainly, these rules are opposing each other and at times inconsistent in consideration to certain facts. However, they cannot be done away with completely since each one will find legitimate application in a specific translation context. And this is, perhaps, where we should begin our attempts to situate technical translation in its own theoretical “space”, if such a thing is possible. Looking at the professional context upon which this book has as its background, we can describe technical translation in very basic terms as a communicative process, or rather, a service provided on behalf of someone else for a particular purpose and within a particular situation and environment. In fact, the constraints and circumstances affecting technical translation are really quite similar to those affecting technical writing which will be discussed in the next chapter.



### Words and Terms

Jackson (2002) adopts two dimensions in viewing words and terms: writing and speech. He further maintains that in writing “a sequence of letters bounded by spaces; in speech words are composed of sounds, syllables, and they follow one another in the flow of speech without spaces or pauses.” (p.1). He adopts a fairly personal definition to the category of words: large classes and small classes. His large classes included the nouns, adjectives, verbs and adverbs. His small ones addressed the remnant of the English grammatical items namely form words such as the articles.

Jackson has also considered the theory of morphemes with new classification of his own. He stated that words are composed of morphemes that when a word has one morpheme he termed as *simple* or when consisting of more than a single morpheme he called them *compounds*.

Cabre (1999) states that.....

“terms and words are similar and different at the same time; a word is a unit described by a set of systematic linguistic characteristics and has the property of referring to an element in reality, a term is a unit with similar characteristics used in a special domain, from this standpoint, a word of a special subject field would be a term.” (p. 35)

However, Kageura (2002) claims those terms are concrete linguistic objects in a specialized discourse. From his standpoint a term is “a lexical unit consisting of one or more than one word which represents a concept inside a domain.” (p. 9) Kageura views terminology as vocabulary related to a specific domain. Cabre believes that the major difference between words and terms is directly traceable to pragmatics

“pragmatically, terms and words differ with respect to their users, the situations in which they are used, the topics they communicate, and the types of discourse in which they usually occur.” (p. 36) Cabre further makes a significant distinction between users of words and users of terms. Users of words are by and large speakers of the language whereas terms are generally used by professionals that handle specific field or discipline. She reiterates that “words are used in widely varying situations, whereas the use of terms of a special subject field is usually limited to the professional circles.” (p. 36)

### The Nature of Technical Documentation

To have a thorough grasp of what the nature of technical documentation is about, it is sensible to have a quick look at the general characteristics of the technical documentation. Markel (2003:-10) presents us with a good general view of technical documentation and its production. Technical production is meant to be used by certain readers. It is certain that numerous non-technical documents are intended to address a particular audience, while technical documents are more specific in connection with the type of readers they are intended to address than most documents. A number of factors are taken into consideration in producing a technical document including age profile, job, experience, knowledge, seniority, tasks, problems, aims and objectives.

Technical documents help readers solve problems. Markel says that “technical communication is not meant to express a writer’s creativity or to entertain readers; it is intended to help readers learn or do something”



(2003:8). As was mentioned earlier, reading technical documentation is generally not an end in itself. People normally read technical documentation because they want to be able to do something else, for example learn how to use software or find out about the design details of a particular device. As Dobrin explains “technical writing adapts technology to the user” (1983:247).

The way in which technical documentation is produced is also important, according to Markel, in defining its nature. The very nature of the company, its culture, goals and organization, are reflected in the types of documents that company produces. For example, a company with a rigid and formal hierarchy may tend to favor formal and structured memos as a way of communicating between staff rather than informal emails or a simple chat over a cup of coffee.

### Translation Evaluation

Though translation evaluation or assessment is such a controversial issue, a number of proposals or models have been forwarded to perform the assessment operation. Melis and Albir (2001) reiterates that translation assessment, objects, type, function, aim and means of assessment should be demonstrated quite obviously. To carry out the translation assessment process, they have adopted three criteria: the evaluation of the published translations of a particular text with the aim of comparing the source text with all the translated versions to find out to what extent the rendering is close to the source text. The second criteria took as its point of departure the evaluation of the objectives of the translator’s work; whether for teaching or research purposes. The third criteria are the evaluation of the teaching operation of

translation for the purposes of correcting errors and identifying the hurdles posed by translation.

A further dichotomous perspective has been suggested in alignment with the evaluation process: translation problems and translation errors. As far as translation problems are concerned they have argued that these relate mainly to linguistic problems, extra-linguistic, transfer, psychological and professional problems. As regards the issue of translation errors, they have considered what can be termed as product and process errors. Interlingual errors in connection with the source text and intralingual errors with the target text, functional and absolute errors and they have also distinguished between systematic and random errors.

Some other types of evaluation and assessment have been proposed by other linguists. Sainz (1992) is probably more suitable for the evaluation question as it proposes a number of steps likely to bring about solid results were they applied with a greater degree of precision. The step is called development stage which takes into consideration and even foreshadows student’s needs. The second is termed as the implementation stage where students were provided with correction charts. The third is the monitoring stage in which the teacher closely follows and monitors the students’ production. The fourth is the integration stage where the teacher takes a more practical and classificatory step by jotting down the students’ errors to make a typology of errors. The final step is a self-monitoring as the students ponder over their mistakes and try to discover their shortcomings with the intention of taking a corrective procedure by themselves and further assess their own improvement.

### Research Question

In rendering medical terms what is the most common strategy students have drawn upon recurrently?

### Baker's Model of Translation Strategies

In consideration of the most proper type of strategy to be employed for translation in when non-equivalence at word level is completely lacking, Baker (1992) suggested the following strategies:

- (a) Translation by more a more general word
- (b) Adopting a more neutral or less expressive word
- (c) Translation by cultural substitution
- (d) Translation by a loan word or loan word with explanation
- (e) Translation by paraphrase using related words
- (f) Translation by paraphrase using unrelated words
- (g) Translation by omission

### (h) Translation by illustration

In this paper the above strategies are going to be considered to make out which of the strategies have been used more frequently or repeatedly by the students in their attempts to translate the medical terms provide for them.

### Methodology

In order to achieve the objectives of this paper, a small test comprising three paragraphs and a few separate or independent medical terms have been distributed to students to be translated from English into Arabic. Students were allowed to use medical dictionaries that are downloaded on their mobile phones. Students have studied the strategies by Baker and they would use them in their translation without knowing that they are actually using certain types of strategies except after the test when the strategies are discussed. The following is such one paragraph in English:

Translate the following paragraph. Dictionaries are permissible:

What are Candestan tablets and what they are used for. The name of your medicine is Candestan 8mg, 16mg and 32mg tablets. The active ingredient is Candestan cilexetil. This belongs to a group of medicine called angiotensin II receptor antagonists. It works by making your blood vessels relax and widen. This helps to lower your blood pressure. It also makes it easier for your heart to pump blood to all parts of the body.

Now translate the following Arabic text into English

التداخلات الدوائية  
يرجى إخبار الطبيب أو الصيدلي إذا كنت تستخدم أو استخدمت مؤخرا أي نوع آخر من الأدوية بما في ذلك الأدوية التي تم الحصول عليها دون طبية. كانديستان يمكن أن يؤثر على طريقة عمل بعض الأدوية الأخرى ويمكن لبعض الأدوية أن يكون لها أثر على كانديستان. إذا كنت تستخدم أدوية معينة طبيبك قد يحتاج إلى إجراء اختبارات الدم من وقت لآخر.

### Results and Analysis

It is apparent from the figures shown above that the strategy that most students opted for in their translation is the equivalence. As many as 135% have opted for equivalence, whereas 30% preferred to use a general word at the same time 40% have chosen loan word plus paraphrase, and that 25% used specific word, and 9% used paraphrase with a related word, as many as 6% used paraphrase plus unrelated word and finally 4% have opted for omission. This inconsistency as to the type of the strategy to be used accounts for the lack

of training on the part of the learners despite the fact that technical translation is one of the most common genre of translation. More often than not, the results are disappointing. Not because technical translation is inherently unique and challenging (although it is) but because translation itself is as elusive and lively and unpredictable as ever and there seems to be a real collective mental-block preventing a clear understanding of what translators actually do. Let's consider the following representations of the result for more clarification:

TABLE 1.  
FREQUENCY OF TRANSLATION STRATEGIES IN THE CORPUS

Translation Strategies	Frequency
Equivalence	135
general word	30
Loan words+ paraphrase	40
specific word	25
paraphrase using a related word	9
paraphrase using unrelated word	6
Omission	4

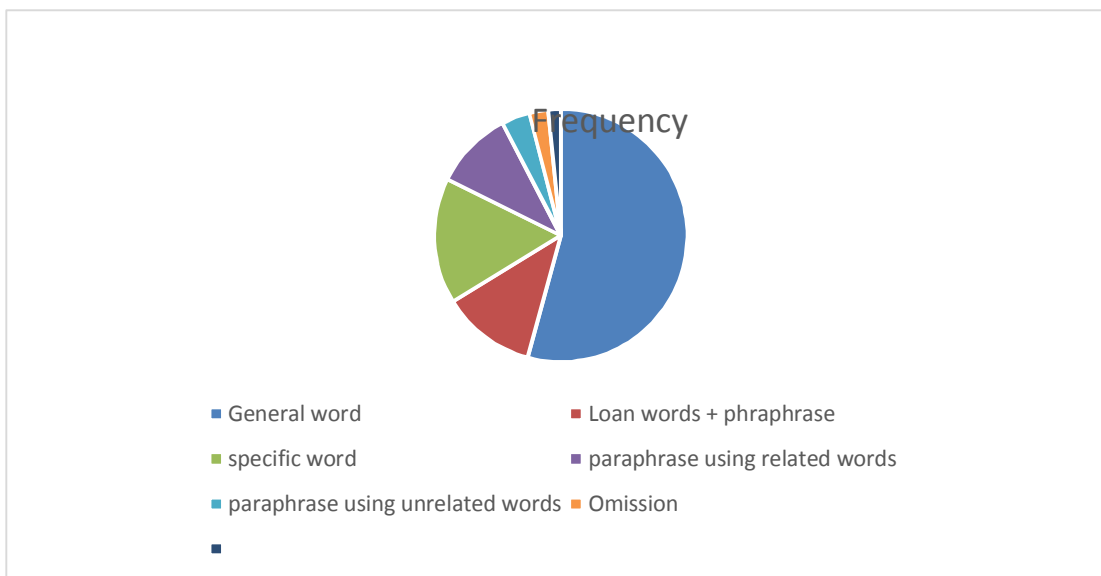
As apparent from the table above, technical translation is not the type of translation that lends itself easily to novel practitioners. Undoubtedly, Clarity, concision and correctness, the principal stylistic goals of technical writing, are simultaneously those of technical translation; an excellent technical translator is an excellent technical writer. This result reveals that none of these standards of the stylistic goals have been achieved.

A good literary translator strives to produce a target version which is as elegant and readable as the original, but the technical translator's main priorities are *precision* and

*comprehensibility*, since the consequences of lexical error, however slight, are more serious.

According to *Wikipedia* technical translation is viewed as a type of specialized translation involving the translation of documents produced by technical writers (owner's manuals, user guides, etc.), or more specifically, texts which relate to technological subject areas or texts which deal with the practical application of scientific and technological information. This result really calls for specialization on the part of the translator.





### Bibliography

- [1] Baker, M. (1992). In Other Words: A coursebook on translation. London: Routledge.
- [2] Beeby, A. (2000). Teaching Translation from Spanish to English. Ottawa: University of Ottawa Press.
- [3] Bononno, R. (2000). Terminology for Translators-An Implementation of ISO12620. *Meta XLV* (4), pp. 646-669
- [4] Byrne, J. (2006). Technical translation: Usability strategies for translating technical documentation. The Netherlands: Springer.
- [5] Cabré, M.T. (1999). Terminology: Theory, Methods and Applications. Amsterdam and Philadelphia: John Benjamins.
- [6] Cabré, M.T. (2003). Theories of terminology: Their description, prescription and explanation. *Terminology*, 9 (2). pp. 163-199
- [7] Corbolante, L. & Irmler, U. (2001). Software Terminology and Localization In Wright, S.E. & Budin, G. *Handbook of Terminology Management: Application-*

*oriented Terminology Management*. Vol. 2, Amsterdam/Philadelphia: John Benjamins Publishing.

- [8] Farahzad, F. (1992). Testing Achievement in Translation Classes. In C. Dollerup and A. Loddergard (Eds.), *Teaching Translation and Interpreting*. (pp. 271-278). Amsterdam/Philadelphia: John benjamins.
- [9] Goff-Kfour, C. A. (2005). Testing and Evaluation in the Translation Classroom. *Translation Journal*, 9(2), 75-99.
- [10] Gutt, E.A. (1991). Translation and Relevance: Cognition and Context. UK: Blackwell Publishers.
- [11] Hartmann, R.R.K. & James, G. (1998). Dictionary of Lexicography. London: Routledge.
- [12] Jackson, H. (2002). Lexicography: An introduction. London: Routledge
- [13] Kageura, K. (2002). Dynamics of Terminology: A descriptive theory of term formation and terminological growth. Volume 5, Amsterdam/Philadelphia: John Benjamins Publishing.



[14] L'Homme, M., Heid, U. & Sager, J.C. (2003). Terminology during the past decade (1994-2004): An Editorial statement. *Terminology*, 9(2), pp. 151-161

[15] Melis, N. M. and Albir, A. H. (2001). Assessment in translation Studies: Research Needs. *Meta*, 46(2), pp. 272-287.

[16] Nida, Eugene A. & Taber, Charles R. (1969). The theory and practice of translation. Leiden: E.J.Brill reprinted 1982.

[17] Sager, J.C. (2001). Terminology Compilation: Consequences and Aspects of Automation In Wright, S.E. & Budin, G. *Handbook of Terminology Management: Application-oriented*

*Terminology Management*. Vol. 2, Amsterdam/Philadelphia: John Benjamins Publishing.

[18] Sainz, J. M. (1992). Student-centered Correction of Translation. Amsterdam/Philadelphia: John Benjamins.

[19] Stein, G. (2002). Better words: Evaluating EFL dictionaries. UK: Short Run Press, Ltd, Exeter.

[20] Waddington, C. (2001). Different Methods of Evaluating Student Translation: the Question of Validity. *Met: Translator's journal*, 46(2), pp.311-325

[21] Yule, G. (2006). The Study of Language. (3rd ed.). UK: Cambridge.