The Faculty of Arts

Annals of the Faculty of Arts Volume 50 (April - June 2022)
http://www.aafu.journals.ekb.eg
(A Refereed Scientific periodica)

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Content Compatibility in Translating Audio-Visual Medical Discourse (A Case Study of the Series: Ask the Doctor - Episode 11)

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Abstract:

Translators in the field of medical translation encounter several challenges during their work such as terminology, lexical equivalence, cohesion failure, target acceptability, and text quality.

Translating proper nouns in medical discourse is a difficult and confusing process for some reasons such as drugs marketing brands, which differ from one country to another, and the different terminology for the same terms, which are labeled after its discoverer in each culture (Newmark, 1988, 35).

This study is going to examine these challenges and difficulties each translator encounters in translating from English into Arabic in an audio-visual discourse. The case study will be an episode from the series 'Ask the Doctor' ', an Australian medical series - concerned with healthcare subjects, the latest medical findings, and answering some questions regarding the welfare of humans - which has been broadcasted through a number of TV networks and has been translated into Arabic.

The paper is going to show us the linguistic and semantic gains and losses and the best approaches to avoid these failures through examining content compatibility.

Keywords: Medical Discourse – Translation – Compatibility – Audio-Visual - Terms

0. Introduction

Translation is the main factor responsible for disseminating medical knowledge, science, and language throughout the globe. Without it, medicine would not be as it is now in our modern-day. Medical translation as a field is concerned with some specialized subject areas starting from medicine as a science and ending with subjects that intervene with it as law and administration. Thus, it does not concern a single field of discourse.

Medical Language is part of the languages for special purposes. These languages differ from our common language in terminology and usage. They are a way of communication between specialists and those who are interested. However, these languages intervene with our common language due to the fast development and mixed contents. Thus, relying on such classification is somehow difficult (Herget & Alegre, 2009, 3).

Another classification is made by Haddad (1997, 9) who defines it as "a subcategory of the language of science". This subcategory is distinguished from other subcategories by its present tenses, abbreviations, and compounds. However, any subcategory of the language of science is characterized by precision and objectivity.

On the other hand, Newmark (1988, 151) relates medical language to a more widely category namely 'Technical Language', which is distinguished from other languages by its terminology and style. Empty verbs, impersonality, nominalization, passive voice, and the third persons are the main characteristics of the technical language. He (1988, 153) proposes three levels regarding the terminology of the technical language:

1. Academic: Latin and Greek words transferred via academic papers.
2. Professional: Formal terms used by experts.
3. Popular: Familiar alternative words used by non-expert users.

Löning (as cited in Yaseen, 2013, 20) suggests another typology of four levels according to the partners' specialization and the medical context aim:

1. Professionals to professionals: transferring intended specialized knowledge from a doctor to a doctor as in scientific texts and summary reports.
2. Professionals to semi-professionals: transferring instructional knowledge from a doctor to medical student or personnel, as in medical textbooks.
3. Professionals to non-professionals: transferring informational knowledge from a doctor to a patient as in doctor's healing instructions.
4. Non- professionals to non-professionals: transferring problematic popular knowledge, written in the style of scientific text, from a writer to readers as in articles.

Because Löning's (ibid) typology is the most detailed classification and since this paper is interested in investigating and analyzing the content compatibility of translating medical discourse into a variety of audiences, we are going to adopt this classification.

Every day new medicines, discoveries, products, devices, applications, and findings emerge all around the world. However, most of it if not all of it consequently have to be written in English. Accordingly, translation becomes a necessity and thus translators start to render textbooks, studies, researches, brochures, summaries, leaflets, etc. All these text-type information require a field of translation with specialists to handle the job of rendering it into other languages. Thus, the term medical translation appears (Karwakca, 2015, 272).

Medical and religious translations are the oldest fields of translation ever known (Berghammer, 2006, 40). Medical translation is 'the oldest field of scientific translation and the most universal field' (Argeg, 2015, 60). Over time, knowledge in general and medical knowledge, in particular, has governed language relationships. English becomes the dominant language after Latin faded, and it dominates the research field and eventually the study field (Ibid, 61). Even in our Arab world, 85 out of 90 schools of medicine use English in teaching (Ismail, 2001, 68).

To translate medical texts, of any kind, knowing the language of medicine is as important as being a translator. Thus, it is not just being a translator is that qualifies you to translate medical texts, it is being an expert or at

least having good knowledge in medicine is what matters. Aregeg (2015, 62) says that: language and the knowledge of the subject matter are interlaced with each other, and translators have to know the addressed requirements to handle the challenging problems which they are going to face in their work.

PART ONE
THEORETICAL FRAMEWORK

1. Medical Language

Although the scientific language is part of the language, yet it falls within the domain of the discourse rather than the text. However, as medicine is considered a field of science, and medical language is regarded as a part of scientific language, then medical language falls with the domain of discourse, not text (Al-Sulaimaan & Al-Haj-Qasim, 2006, 10).

Medical language is characterized by complexity and special terminology. Its complexity is in matters of sentence structure, and special terminology is in matters of foreign words. These words are acknowledged and accepted all over the world regardless of the language in use. It is a verbal and symbolic language (Caldwell & Henger, 1978, 9).

Other characteristics of medical language that could apply to other scientific languages involve the use of abbreviations. They are consistently used in medical texts and knowing their meanings is of extreme importance to understand the whole text (Pakhomov, 2002,160). Several theorists and linguists agree with what Pakhomov said in that: medical abbreviation is an essential part of the medical language that saves time and space (Al-Rawi & Al-Faghri, 2002, 6).

2. Medical Discourse

A wide range of communication systems forms medical discourse. The term 'specialized discourse' was used by Gotti (2008, 24) to refer to a context in which a specialized form of language is used. Karwakca (2015, 273) mentions three factors of extreme importance regarding specialized discourse namely: the user, the field, and the language in use.

Al-Sulaimaan & Al-Haj-Qasim (2006, 10) say that as the term 'discourse' means a "supra-sentential unit of language in use, a unit higher than a sentence and related to the context", then medical discourse consequently means a " supra-sentential unit of language in use, a medical unit higher than a sentence and related to the context".

The medical discourse used in a specialized language is transferred via expert to expert or expert to a communicator, in which the communicative situation and the participants involved in it determine the nature of the genre in use and its characteristics. Gotti (2008, 24) explains that expert to expert includes summaries, studies, reports, and researches in which the semantic value is what matters. While expert to communicator comprises leaflets, notes, patient's factsheets, etc., with less complicated terms which are explained whenever to take place for the first time.

2.1. Grammatical Features

According to Al-Sulaimaan & Al-Haj-Qasim (2006, 12) the grammatical features of the medical discourse are:

1. Proper Names: Scientific language, and medical in particular, uses nouns extensively in their terminology. The majority of these noun terms are noun phrases in which an adjective or a prepositional phrase comes as a modifier to the head noun. Nevertheless, proper nouns are an essential part of the complex noun phrases' structure and their discourse is rich in such cases, for example, Achill's Tendon and Parkinson's Disease.
2. Cause and Effect: The cause and effect relation includes two forms, cause-effect which displays the results of an action or event, and effect-cause which illustrates the causes of a situation or an event (Fear, 1978, 36). Both are used extensively in medical discourse.

To express a cause-effect relation a causal relation is used to indicate the relation between clauses or phrases as causal links (like as, because, for, hence, since, so, that is way, the result, therefore, etc.), and between subject and object or prepositional phrases of verbs as causative verbs – transitive verbs (e.g. break → cause to break, die → to cause to die, etc.). The causative verbs (transitive verbs) are the most used way to express the cause-effect relation (Khoo & et al, 2000, 3). Khoo (as cited in Al-Sulaimaan & Al-Haj-Qasim, 2006, 13) illustrates the importance of causal relation in medical discourse in that: 'it concerns with treatment and drug developments'.

3. Adjectives as Modifiers: Using them in medical discourse is common and important. They tend to be used with specific nouns, and their meaning can be known from the nouns they are associated with.

There are a number of these adjectives in medical discourse such as the 'locative adjectives' which indicate the location of the human body parts (Maclean, 1975, 31), and the 'compound adjectives' which are consisted of two nouns derived from Greek or Latin (ibid, 71). Another one is the 'non-technical adjectives' which have eight functions (Luzon, 1997, 48):

1. Referring to data, experiments, methods, etc., like: available, average, detailed, detectable, relevant, etc.
2. Qualifying and evaluating research papers, like appropriate, difficult, necessary, etc.
3. Commenting on results like consistent, different, significant, etc.
4. Establishing a cause relation like associated, due, related, etc.
5. Expressing possibilities like apparent, likely, etc.
6. Expressing different levels in degree, frequency, and quantity like: considerable, few, etc.
7. Expressing importance like important, major, main, etc.
8. Expressing time like current, present, previous, etc.

3. Medical Translation Methodologies

Most of the modern international medical texts espouse a sociolinguistic approach towards medical discourse, in which both the speaker and the communicative situation are essential elements (Yaseen, 2013, 58). Pileggard (1997, 160) states that the communicative purpose of medical discourse is to give a clear and unmistaken terminology to express relevant concepts in any situation, especially in professional to professional typology. Therefore, the same purpose is required as a necessity in the translated text.

Medical translation as a type of technical translation and a branch of specialized translation requires the translator to be a well-knowledged and highly accurate translator. Although some have argued that the accuracy of translating medical terms can be achieved through specialized dictionaries; yet, using them precisely in accordance with the context is not always granted (Yaseen, 2013, 60). Hence, specialized dictionaries are not necessarily enough to provide the correct equivalence taking into consideration that they often contain many synonyms in which non could be fit in the context (Newmark, 1979, 1406).

As one of the most common concepts in translation studies, equivalence has been defined by many theorists and writers. In this study Catford's definition (as cited in Hatim, 2001, 14) is going to be adopted, he stated that equivalence is the process when the target language textual material replaces the same textual material in the source language. Concerning equivalence at the word level, Hatim (2001. 29) has explained that: the quantitative approach can be adopted. Hence, he (2001. 29) illustrates Kate's typology of quantitative approach towards equivalence as follow:

1. One to one equivalence: a single expression of the target language replaces one in the source language.
2. One to many equivalence: more than one expression of the target language can replace one in the source language.
3. One to part of one equivalence: a single expression of the target language which covers part of a concept is labeled by one source language expression.

4. Nil equivalence: no single expression in the target language can be found to replace the one in the source language.

Regarding (Hatim, 2001. 29) illustration of the quantitative approach towards equivalence, Yaseen (2013, 61) states that in matters of translating English medical terms into Arabic the 'one to many equivalence is manifested. Taking into consideration that for each English medical term there is an equivalent whether it is Arabized, described, or transliterated and sometimes all of them indicate that 'one to one equivalence' is absent, and so is the 'nil equivalence'. As for 'one to part of one equivalence' it is also manifested, for example, the medical term 'ataxia' which is translated into 'ترنح', notice that 'ترنح' only covers part of the term which stands for "defective muscular coordination manifested when voluntary movements are attempted" (Nassar, 2002, 36). After that being cleared and as far as medical English relations to medical Arabic is concerned, the 'one to many equivalence' is the case at hand.

4. The Problem of Equivalence in Medical Translation

Most of, if not all, the problems translators face while translating medical discourse are the problems relating to medical terms. Although translators try to solve these problems by consulting specialized dictionaries, yet they are not always helpful for several reasons such as whether they are recently updated or not and whether the equivalent will fit into the contextual situation or not, etc .

Vinay and Dabelnet (as cited in Cronin, 2003, 121) refer to equivalence as the process of replicating a situation in the source language with the same situation in the target language but with entirely different wording. Baker and Saldanha (as cited in Argeg, 2015, 88) explain that the failure of a translator to find the appropriate equivalence while translating medical discourse will result in mistranslation, and this mistranslation can have fatal consequences. Argeg (2015, 88) has cleared that these problems related to equivalence can be seen at different levels, extending from the word to the textual level.

4.1. Translation Procedures Concerning Equivalence

Yaseen (2013, 106) suggests three procedures that lead to three types of equivalence:

1. Arabization: the rendering of a foreign or new term into a new equivalent from an existing root, for example, the term 'cataract' is Arabized into 'الساد'.

2. Borrowing: the rendering by taking a word or expression from another language either without any change (pure) or fitting it to the rules of spelling in the target language (naturalized). Naturalized borrowing is also referred to as transliteration, for example, if we want to transliterate the same term 'cataract' it would be 'كاتاراكت'.

3. Description: the rendering of a term or expression by describing it, so if we take the same example 'cataract' it is descriptively translated into Arabic as 'اعتام عدسة العين'.

It should be noticed here, that the same medical term can be translated using all three procedures. Thus, the three procedures resulted in Arabized, transliterated and descriptive equivalences.

Another important procedure of technical translation in general, and medical in particular, is terminological consistency. Macklovitch (1995, 1) explains this as using the same translation for the same term throughout the whole text. Otherwise, it will confuse the reader/hearer, and this confusion is what characterizes what we call bad translation.

4.2. Translation Strategies in solving Equivalence Problems

Argeg (2015, 101) explains that equivalence problems can be seen at different levels ranging from word to text levels. These problems are the result of the differences in language structure and culture. Due to these problems, a translation product can have both lost and added data. The real challenge for any translator is how to deal with this lost and added information while translating.

1. Addition: the information added to the target text is usually based on the data itself, whether cultural, semantic, or technical. It is either added between brackets or stated as a footnote. This strategy is usually used in the absence of a target equivalent for an abbreviation, event, expression, or word.
2. Omission: the information omitted from the target text is usually done to avoid any awkwardness, redundancy, or repetition in a specific situation. Sometimes a translator omits a word that needs a long explanation or may confuse the receptor while its omission does not affect the meaning.
3. Structural Adjustment: also known as alternation, shifting, and transposition. It helps to provide proper stylistic equivalent, develop equivalent structures in the target language, and adjust the way the message is presented to suit the needs of the receptor's language.

5. Medical Translators Qualifications

In our modern world, with the fast development in medicine, science, and technology, the demand for specialized translators is significant. As medical language takes the lead part in this development, the demand is even more significant.

However, there is a controversial question of who should translate a medical text/discourse, should he be a linguist or a linguist with medical knowledge or a medical professional or some other kind of expert. Karwakca (2015, 288) states that, in an ideal situation, the best translator would be a medical translator, not a medical professional, who underwent special training and have some medical background. The International Medical Interpreters Association (IMIA) supports this opinion (2009, 3-5); according to it the one who should translate medical data is a professional translator with analytical skills, college degree in translation, expert knowledge in terminology, a formal level of language proficiency, proficiency of the two languages, profound cultural knowledge in the two languages, research skills, and proper writing skills.

Nevertheless, medical training expertise is not restricted to acquiring medical knowledge only. A medical translator's expertise must involve the linguistic features of general and specialized languages. That is to say when a translator translates medical data to patients he should use simple syntax, simple sentences, and simple words. On the other hand, when he translates to medical professionals he should use specific language, precise wording, and discourse markers that will be identical or semi-identical to that of the source (Karwakca, 2015, 288).

Karwakca (2015, 288) further explains that translators of medical discourse/text in the field of medical translation take full responsibility for both the quality and the accuracy of their translated versions, and this seems to be one of the reasons for some poor translations rather than just the translator's knowledge background, especially when the translators themselves decided whether they are qualified or not.

6. Audio-Visual Translation

We have two techniques in audio-visual translation, the first is subtitle technique (or text translation), which is done by displaying the translated text of spoken dialogue, and the second is dubbing technique (or voiceover) which is done by replacing the actors' voices. Due to the limitation of the subject of this paper, the subtitle technique is going to be dealt with.

Díaz Cintas (as cited in Sejarah, & Sastra, 2018, 383) explains that subtitling is the technique of showing a condensed written text on the screen to transfer dialogues as well as other linguistic information that form the visual image. This technique challenges the skills of the translator to produce a precise, accurate and neat translation.

Chuang (2006, 372-383) defines subtitling as a process of translation between two communication modes, i.e. the spoken word into the written word. The main problem with it is the issue of time and space, which forces the translator in many cases to omit phrases or complete sentences at the expense of exact translation to achieve a more concise translation.

There are some critical issues in audio-visual translation. The word choice is one of them, it may result in audience confusion especially in the case of the absence of equivalence in the target language. The kind of the translated audio-visual unit is another one of these issues, it may require a special approach to handle it, for example, comedies and humorous shows which may lose their effect if the translator does not use equivalent punch lines. Other kinds also have their translation relevant issues such as biographies, musicals, science fiction, etc (Schröter, 2003, 105-124). There are other less critical issues such as the non-verbal dialogue (gestures, sounds, effects, imaging, background hints, etc.) if these are not translated the text will lose its authenticity and so does the message, besides the audience will be less attracted to the work and will not enjoy it (Dastjerdi & Jaini, 2011, 60-77).

While translating audio-visual discourse, Pavesi (as cited in Sejarah & Sastra, 2018, 384) states that neither the original nor the translated text perfectly imitate the real discourse, they just come close to it. Bad translation is not the outcome of a bad translator only, it is also the outcome of imitating the original translation.

6.1. Audio-Visual Translation Techniques

According to Molina and Albir (2002, 509-511) and Sejarah and Sastra (2018, 391), there are 13 techniques for a translator to choose from while translating audio-visual discourse:

1. Amplification (Addition): the translator uses it, in subtitling, to provide more details to the target language, which does not exist in the source, for the clarity of meaning. It is the same as addition and gain and has also been called grammatical expansion for meaning clarity.
2. Borrowing: in subtitling, the translator takes a word from the source by copying or reproducing while translating it. If he uses it with changing it, it is called pure borrowing; if he changes it to suit the target's spelling rules it is called naturalized borrowing.
3. Calque (Loan Translation): the translator imitates the morphological system and significance of a word, not the pronunciation, in the target language. It can be also described as a literal translation.
4. Compensation: while subtitling, the translator uses it to give stylistic effect in a place in the target language which differs from its place in the source because it cannot be replaced in the same place, for example, dialects, irony, politeness, values, etc.
5. Established Equivalence: the translator uses a term or an expression from the source language, which is known in a dictionary or everyday language use, as an equivalent in the target. It is used to refer to the same situation, yet by different stylistic or structural elements as in songs for example.
6. Linguistics Amplification: in subtitling, the translator uses it to add linguistics elements from the source to the target language, for example adding a subject to a passive phrase. It is often used in situations that require interpretation or dubbing.
7. Linguistics Compression: the translator gathers the source language linguistics elements, he compresses some of the source contexts while translating it to the target because it has more than one explanation. It is mostly used in interpretation and dubbing.
8. Literal Translation: when the translator renders a word for word literally without any addition, reduction, or molding. He focuses on form and structure at the expense of meaning and style.
9. Modulation: the translator changes the point of view of a word or expression in the source to another in the target while keeping the same message and meaning. In other words, to express the same situation in a different way that suits the target properly.
10. Particularization: it is the opposite of generalization, here the translator uses a more solid and profound equivalent that matches the target context in the same way the original matches the source.
11. Transposition: here, the translator changes the source grammatical category of a word or expression while translating it into the target. It is similar to the shift techniques (structural shift, such as active to passive vice versa, adjectives position, singular to plural or vice versa, word-class or parts of speech).

12. Deletion (Omission): the translator removes unnecessary units without affecting the message, meaning, context, or its effect on the audience. It is similar to the reduction technique.
13. Reduction: the translator suppresses or synthesizes a source informational element, which does not perform a significant function, to avoid lack of naturalness, misleading information, and repetition.

PART TWO
PRACTICAL FRAMEWORK

2.1. Research Design

In this research, the collected data is going to be linked to the ways of translating proper nouns after examining them. Yin (1984, 27) explains that the research design is the logic that links the collected data (conclusions and results) to the problem (question, hypothesis) of the study.
The research embraced a qualitative-quantitative approach which involves a descriptive and evaluative analysis. The translation assessment of the translated audio-visual discourse adopted Kussmaul's (1995) translation quality assessment in which a description of the committed errors is presented, then the reasons behind these errors are explained and finally, the way to overcome these errors is given along with the correct translation.
2.2. Text Analysis
The whole text, episode 11, has been submitted to text analysis and the result is as shown below:

Table (1) Parts of Speech

Parts of Speech	Occurrence Number
Definite Articles	287
Prepositions	356
Verbs	794
Adverbs	297
Adjectives	483
Nouns	1551
Pronouns	434
Conjunctions	261
Negations	41
Interrogatives	47

Below are the medical words and word combinations that have been used throughout the episode:

Medical Discourse	Translation
intoxicating fragrance	الروائح المُسكرة
earwax	الشمع
eyesight	الإبصار
sense of smell	حاسة الشم
brain disorders	اضطرابات الدماغ
Alzheimer's disease	مرض (الالزهايمر)
olfactory bulb	البصلة الشمية
hub of nerve cells	محطة خلايا عصبية
clinical neuropsychologist	عالم الاعصاب السريري
Neurodegeneration	التآكل العصبي
diagnostic test	اختبار تشخيصي
symptom	عرض

serious health condition	مشكلة صحية اكثر خطورة
dementia	الخرف
interventions	تدخل
drugs	دواء
newborns	حديثي الولادة
pheromones	الفيرمونات
amygdala	اللوزة المخية
analogy	تشبيه
chlorine	الكلور
electro-convulsive therapy	العلاج بالصدمات الكهربائية
severe depression	اكتئاب حاد
clinical evidence	دليل طبي
reclaiming memories	استعادة الذكريات
toxicity	سمية
nasal passage	ممر انفي
beta-carotene	بيتا كاروتين
vitamin A	فيتامين الف
critical compound for sight	مركب مهم للبصر
vision problems	مشاكل في الرؤية
blindness	العمى
healthy, well-balanced diet	نظام غذائي صحي و متوازن
age	التقدم في السن
diabetes	مرض السكري
genetics	الجينات
retinal cells	خلايا شبكية
organic pigments	اصباغ عضوية
UV light	الاشعة فوق البنفسجية
sensory receptors and nerves	المستقبلات الحسية والاعصاب
audiologist and speech pathologist	اختصاصي السمع وعلم الكلام
deteriorate	تدهور
auditory pathways	المسارات السمعية
the outer channel of our cochlear	القناة الخارجية لقوقعة اذاننا
the inner hairs lining our cochlear (inner ear)	الشعر الداخلي الذي يحد بطانة الاذن الداخلية
vulnerable	عرضة للضرر
diagnosed with nuclear cataracts	شُخص بمياه بيضاء على العين
GP (General practitioner)	طبيب
sensory neural hearing loss	فقدان سمع حسي عصبي
cochlear	القوقعة
Hearing aids	اجهزة السمع

ear trumpet	ابواق الاذن
hearing technology	تكنولوجيا اجهزة السمع
Cochlear implants	زراعة القوقعة
speech processor	معالج الكلام

Although this paper will not depend on Newmark's terminological levels (1988, 153), it is worth mentioning here.

Table (2) Newmark's Levels of Terminology

Level of Terminology	**Used Percentage**
Academic	43.36 %
Professional	32.19 %
Popular	25.45 %

Now, let us have a look at the Löning (Yaseen, 2013, 20) terminological levels concerning the partners' specialization and the medical context aim, which is the focus of the study:

Table (3) Löning Levels of Terminology

Level of Terminology	**Used Percentage**
Professionals to professionals	0 %
Professionals to semi-professionals	0 %
Professionals to non-professionals	76.37 %
Non- professionals to non-professionals	23.63 %

Nevertheless, applying the analysis on the grammatical features of the medical discourse presented by Al-Sulaimaan & Al-Haj-Qasim (2006, 12) the following results are shown:

Table (4) Grammatical Features Analysis

Grammatical Features	**Used Percentage**
Proper Names	45.45 %
Cause and Effect	25.46 %
Adjectives as Modifiers	29.09 %

As for the equivalence and after analyzing Kate's typology of quantitative approach towards equivalence (Hatim: 2001. 29) the following results appeared:

Table (5) Equivalence Typology

Equivalence Typology	**Used Percentage**
One to one equivalence	29.09 %
One to many equivalence	43.63 %
One to part of one equivalence	18.19 %
Nil equivalence	9.09 %

Analyzing translation procedures in relation to equivalence as suggested by Yaseen (2013, 106) are displayed:

Table (6) Translation Procedures in relation to Equivalence

Translation Procedures	**Used Percentage**
Arabization	61.28 %
Borrowing	9.09 %

Description	29.09 %

However, concerning the translation strategies in solving equivalence problems explained by Argeg (2015, 101) the following results are shown:

Table (7) Translation Strategies in solving Equivalence Problems

Translation Strategies	**Used Percentage**
Addition	9.09 %
Omission	3.63 %
Structural Adjustment	87.28 %

Now, let us analyze the audio-visual translation techniques presented by Molina and Albir (2002, 509-511) and Sejarah and Sastra (2018, 391):

Table (8) Audio-Visual Translation Techniques

Translation Techniques	**Used Percentage**
Amplification (Addition)	9.09 %
Borrowing	9.09 %
Calque (Loan Translation)	3.63 %
Compensation	1.81 %
Established Equivalence	9.09 %
Linguistics Amplification	5.45 %
Linguistics Compression	0 %
Literal Translation	7.27 %
Modulation	10.90 %
Particularization	25.45 %
Transposition	9.09 %
Deletion (Omission)	3.63 %
Reduction	3.63 %

2.3 Translation Assessment

The discourse has been turned into written sentences, a combination of sentences (if the idea or message continued), then an assessment is conducted. We shall deal with it by their numbers.

Medical Discourse	**Translation**
1. We explore some of our basic senses، and their vital role in our health and wellbeing.	سنستكشف بعض من الحواس الاساسية والدور الحيوي الذي تلعبه في دعم صحتنا ورفاهيتنا.
2. And Renee explores the vital link between memory and our sense of smell.	و (رينيه) تستكشف الرابط الهام بين الذاكرة وحاسة الشم لدينا.
3. People who start losing their sense of smell are at a higher risk of developing brain disorders like Alzheimer's disease.	الناس الذين يبدؤون في فقد حاسة الشم يكونون في خطر كبير لتطوير اضطرابات الدماغ مثل مرض (الالزهايمر).
4. Other than acting as a cleaning filter، it (The Nose) leads to the	بخلاف عملها كمرشح تنظيف فهي تقود الى البصلة الشمية وهي محطة خلايا عصبية تنقل معلومات

olfactory bulb ، a hub of nerve cells transmitting smell information from the nose to the brain.	الرائحة من الانف الى المخ.
5. There have been studies showing that people who start losing their sense of smell are at a higher risk of developing brain disorders like dementia and Alzheimer's disease.	توجد دراسات اظهرت ان الناس الذين يبدؤون في فقد حاسة الشم يكونون في خطر كبير لتطوير اضطرابات الدماغ مثل الخرف ومرض (الالزهايمر).
6. There's all these pheromones and attractions to other individuals، and it's also smell-based.	توجد مختلف انواع الفيرمونات والانجذابات نحو افراد اخرين وتلك ايضاً تعتمد على الرائحة.
7. There is a very strong connection between the smell center and the memory center، via this third region, the amygdala. The amygdala is the emotion center of the brain، and the amygdala is really sitting on top of the memory center. So the information from the smell center travels very quickly to the emotion center and then to the memory center.	توجد رابطة قوية جداً بين مركز الشم ومركز الذاكرة عن طريق منطقة ثالثة، اللوزة المخية. اللوزة المخية هي المركز العاطفي للدماغ. تجلس اللوزة المخية فوق مركز الذاكرة مباشرة لذا فأن المعلومات من مركز الرائحة تعبر سريعاً جداً الى المركز العاطفي ومنه الى مركز الذاكرة.
8. That's right. That's a very good analogy، and together، they make very powerful memories.	هذا صحيح، هذا تشبيه جيد جداً. ومعاً يصنعان ذكريات قوية جداً.
9. Carrots are full of beta-carotene، which our bodies use to make vitamin A، a critical compound for sight that allows our eyes to convert light into signals that are transmitted to the brain. But while vitamin A deficiency can cause vision problems including blindness، if you have a healthy, well-balanced diet، you probably have all the vitamin A you need، and eating more carrots unfortunately won't improve vision issues caused by age, diabetes or genetics.	الجزر مليئاً بالـ "بيتا كاروتين"، الذي تستخدمه اجسادنا لصنع فيتامين الف، وهو مركب مهم للبصر ويسمح لاعيينا بتحويل الضوء الى اشارات تنتقل الى المخ. لكن في حين ان نقص فيتامين الف يمكن ان يسبب مشاكل في الرؤية، بما في ذلك العمى. اذا كان نظامك الغذائي صحي و متوازن، فغالبا ان تحصل على كل فيتامين الف الذي تحتاجه. وتناول المزيد من الجزر للأسف لن يحسن مشاكل الرؤية التي يسببها التقدم في السن، او مرض السكري، او الجينات.
10. Should I be worried؟ Who better to ask than audiologist and	هل يجب ان اقلق؟ من افضل لأساله من اختصاصية السمع وعلم الكلام، د. "شيريس هاين" في جامعة

speech pathologist Dr. Chyrisse Heine، at Melbourne's La Trobe University.	"لاتروب" في "ملبورن".
11. High tones are picked up by the hairs that line the outer channel of our cochlear and are therefore most prone to damage. Low tones are picked up by the inner hairs lining our cochlear, or inner ear. Because they are more protected، they are less vulnerable to damage.	تُلتقط النغمات العالية بواسطة الشعر الذي يحد القناة الخارجية لقوقعة اذاننا، وبالتالي هو الاكثر عرضة للضرر. تُتلقط النغمات المنخفضة بواسطة الشعر الداخلي الذي يحد بطانة الاذن الداخلية. لأنه محمي بشكل افضل، فهو اقل عرضة للضرر.
12. We do know that the higher the noise exposure، the quicker you'll get a hearing loss. So, traffic noise، probably about 80 to 90 decibels. Enough to give you hearing loss if you're doing that for long enough. So, the higher the noise، the less time you can spend in that noise.	نحن نعرف ان كلما كان التعرض للضوضاء اعلى، ستزيد سرعة اصابتك بفقدان السمع. إذن ضوضاء الازدحام المروري، انها من 80 الى 90 وحدة ديسيبل. انها كافية لإصابتك بفقدان السمع إذا استمعت اليها لمدة طويلة. اذن كلما ارتفع الصوت، قل الوقت الذي تستطيع المكوث فيه.
13. Claude Monet was diagnosed with nuclear cataracts، which some believe altered his perception of color، to the extent where yellows and purples began to predominate in many of his later works.	شُخص "كلود مونيه" بمياه بيضاء على العين، التي اعتقد البعض انها غيرت من ادراكه للألوان الى الحد الذي بدأت درجات الاصفر والارجواني في الغلبة في الكثير من اعماله الاخيرة.
14. Hearing aids have come a long way since the ear trumpet، but the most profound transformation in hearing technology happened in 1982 - Cochlear implants.	قطعت اجهزة السمع طريقا طويلا منذ ابواق الاذن. لكن التحول الابرز في تكنولوجيا اجهزة السمع حدث عام 1982، زراعة القوقعة.

In part (1) the translator changed the verb tense from simple present (explore) into future tense (سنسكشف) altering the time of course-event and by this, he shifts the time-reference of the main verb. However, as for the proper noun (basic senses), he translates it acceptably into (الحواس الاساسية).

In part (2) he preceded the subject over the main verb which Arabic does not tend to use except for special cases. As for proper nouns (memory and sense of smell), he translates it correctly into (الذاكرة and حاسة الشم).

In part (3) he continued what appears to be a calque translation by imitating the morphological system and the significance of the original structure through heading the subject over the main verb in the Arabic rendering (الناس الذين يبدؤون). Then he literally translates (developing) into (تطوير) whereas he should use (نشوء – نمو – ظهور) which is both more precise and more accurate. Concerning proper nouns, he uses ((الالزهايمر) مرض) as an equivalence for (Alzheimer's disease) though the correct equivalence is (الخرف).

In part (4) he literally translates (leads) into (تقود) whereas the accurate equivalence would be (تؤدي). He also misses rendering (hub) to (محطة) which should be rendered into (مركز or موزع). Concerning proper nouns, he translates them properly.

In part (5) the translator encounters a medical problem concerning translating the proper nouns (dementia and Alzheimer's disease). He previously translate (Alzheimer's disease) into (مرض الزهايمر) which we state is inaccurate for the accurate translation is (الخرف). Now, we come upon two proper nouns that have the same reference yet different meanings. He renders it into (الخرف ومرض الزهايمر) whereas the correct equivalence would be (العُته والخرف). This happens because there is in English medical dictionaries a term named (Alzheimer's dementia) which is translated in Arabic medical dictionaries into (خرف الزهايمرor الخرف). However, the combination of the two nouns has led to this misinterpreting other than the translator himself, yet he should pay more attention to the deviation of the two nouns in separation and combination.

In part (6) he uses the borrowing technique to translate the proper noun (pheromones) into (فيرمونات), whereas he could use the description technique to translate it into (مادة جاذبة) and after it, he could place the borrowing (فيرمونات) between two brackets. The reason for that is that he is addressing a non-professional audience and the word (فيرمونات) will cause them to question its reference.

In part (7) the translator uses the (اللوزة المخية) as an equivalent for the word (amygdala). Though he Arabized it from an existing root, the rendering will not be correct unless within a specific context because the word (amygdala) has more than one meaning, and each one depends on a specific context in English as well as Arabic.

He translates the verbs (sitting and travels) literally into (تجلس and تعبر) whereas he should use, and according to the nature of the text, more Arabized words such as (تتموضع and تنتقل).

In part (8) and once again he goes with familiarity instead of accuracy by rendering (analogy) into (تشبيه) which he should translate it into (تجانس or تماثل لفظي).

In part (9), first of all, he starts with the subject (الجزر) then ignoring the auxiliary verb changing it into an adjective. Instead, he should start with a present verb of his own like (يُعد or يُعتبر) to maintain the formality of the text. Nevertheless, he miss-transliterates (vitamin A) into (فيتامين الف) ignoring both the nature of the text and accuracy of the equivalent. Instead, he should keep the borrowing name (A-فيتامين) as he did when he borrows (بيتا كاروتين) from (beta-carotene).

In part (10), the translator mistranslates (speech pathologist) into (اختصاصي علم الكلام) whereas the correct equivalent is (اختصاصي امراض النطق) and there is a big difference between the two terms in Arabic.

In part (11) he deletes the word (cochlear) and keeps (inner ears) in his translation; though the two refers to the same thing, yet considering the fact that there are two references for the same word, he should keep them both in his translation as the case in the original text (قوقعة الاذن) then adds (او ما يعرف بـــ الاذن الداخلية).

In part (12) he translates the part (traffic noise، probably about 80 to 90 decibels. Enough….) into (ضوضاء الازدحام المروري، انها من 80 الى 90 وحدة ديسيبل. انها كافية.....). Notice the poor Arabic sentence in which he uses (انها) twice with a comma and full stop, the Arabic reader will the notice novice structure of the sentence which seems to be a machine translation rather than a translator's effort. Instead, he should use more conjunctions and prepositions to modulate his sentence. It could easily be (ضوضاء الازدحام والتي تتراوح ما بين 80 الى 90 وحدة ديسبيل (وحدة قياس صوتية) التي تُعد كافية ....)).

In part (13) the translator chooses to go with the (Description) as a technique to translate (nuclear cataracts) and so he renders it into (مياه بيضاء على العين). Now, notice that he chooses to neglect both the Arabization translation as (الساد) and the Borrowing translation as (الكاتاراكت), and although he decides to go with Description translation he fails to use the correct equivalent which is (اعتام عدسة العين).

In part (14) he uses (ابواق الاذن) as a translation for (ear trumpet) which would be incomprehensible for the Arabic reader since (ears) have no (trumpets). Instead, he should use a descriptive rendering as in (مساعدات سمعية على شكل ابواق والتي كانت تستخدم قديماً).

3. Findings

After conducting our text analysis and translation assessment, we have come to the following findings:

A. There is a huge difference between written translation and audio-visual translation (dubbing and subtitling) due to lack of space and time, which affects the translation profoundly.

B. Some audio-visual translators tend to use the help of machine translation, for multiple reasons, which in turn damage the translated versions of their works. This affects both the quality and the accuracy of their translations.

C. Several audio-visual translators do not take text-type or text- orientation into consideration while translating.

D. There is a clear lack of coherence and cohesion in the Arabic text, which is manifested by the intensive and inaccurate use of commas and full stops, and the lack of using Arabic conjunctions and prepositions.

E. There is no specific technique or strategy, so to speak a methodology, in translating audio-visual discourse. The translator seems to ramble from one to one without a clear line, which leads to many failures.

F. Medical discourse as a branch of medical translation, thus scientific translation, should and must be done by specialized translators in these fields.

G. There must be a revisional process before any audio-visual translation.

I. Translators should work according to their area of specialty and expertise not according to their desire and availability.

Conclusion

Translating medical discourse is one of the most problematic areas of translation for many reasons related to space, time, text type, text orientation, translator specialty and expertise, computerizing skills, and subtitling methodology.

A translator in this field of translation has approximately 13 different techniques to choose from while translating, yet there is clear evidence for the above case that the translator depended on literal translation and use machine translation in many different places.

There are three levels of technical language (Newmark, 1988, 153) and four in the medical context (Yaseen, 2013, 20), each medical discourse belongs to a level of it. These levels may create different types of problems regarding the most accurate and precise equivalent, Hatim (2001, 29) presented four procedures to avoid them and Yaseen (2013, 106) offered three procedures, while Argeg (2015, 101) recommended three procedures all of which helps the translator to evade any equivalence problem. As for the audio-visual techniques, Molina and Albir (2002, 509-511) and Sejarah and Sastra (2018, 391) equipped each translator with 13 techniques which in the hand of a qualified translator should lead to an adequate translation. However, the translator did not abide by it which is obvious in his tendency towards literal and machine translation.

Nevertheless, the above levels, procedures, and techniques should be the guideline for any translator who endures the task of translating medical discourse.

المستخلص:

موائمة المحتوى في الترجمة السمعية-المرئية للخطاب الطبي

(دراسة إفرادية لحلقات برنامج: اسأل الطبيب – الحلقة 11)

انس خالد ابراهيم

يواجه المترجمون في مجال الترجمة الطبية عدداً من التحديات اثناء عملهم منها المُسميات الاصطلاحية والمُكافئ المعجمي وعدم سلاسة النص وتقبل النص المُترجم بالإضافة الى نوعية النص.

ان ترجمة اسماء العلم في الخطاب الطبي هو عملية صعبة ومحيرة في آنٍ معاً ولأسباب عدة منها المُسميات التسويقية والعلامات التجارية للعقاقير الطبية والتي تختلف من دولة لأخرى بالإضافة الى اختلاف المُسمى الاصطلاحية لكل مَصطلح والذي غالباً ما يكون على اسم مُكتشفه وحسب ثقافة كل دولة ولغة.

سيقوم هذا البحث باستقصاء حول هذه التحديات والمشاكل التي يواجهها المُترجم اثناء ترجمته للخطاب الطبي السمعي-المرئي من اللغة الانكليزية الى اللغة العربية. سيكون محور الدراسة حلقة من حلقات برنامج (اسأل الطبيب). هو حلقة من حلقات برنامج (اسأل الطبيب) وهو برنامج استرالي يتناول مواضيع الرعايا الصحية واخر المستجدات الطبية بالإضافة الى الاجابة على الاسئلة المتعلقة بصحة الانسان ولقد تم عرضه في الكثير من القنوات التلفزيونية كما تمت ترجمته الى العربية.

ستوفر لنا هذه الدراسة رؤية واضحة للمكاسب والاضرار اللغوية والدلالية وافضل الطرق والمناهج لتجنب هذه الاخفاقات وذلك عبر استقصاء موائمة المحتوى الترجمي.

الكلمات المفتاحية: الخطاب الطبي – الترجمة – الموائمة – السمعية والمرئية - المصطلحات

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