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Dedication:

This work is dedicated to my parents, the source of help and advice and encouragement, my beloved brothers and sisters.

I also dedicate this work to friends who have supported me .

To all my family, the symbol of love and giving, I dedicate this research

Bendiba zineb

*FIRST OF ALL, ALL PRAISES TO ALLAH WHO
HELPS ME FINISH THIS WORK.*

*The present work is dedicated to my dearest person, my
father.*

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'Saleh' and 'Taha'.*

I dedicate this work to my brothers and sisters.

To all my friends and my family.

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Abstract:

This study is intended to examine the problems in accomplishing the textual, terminological, and scientific equivalence in specialized translation especially with regard to the veterinary translation. It firstly tackles English- Arabic veterinary translation, then it is the features of such texts characterized with specialized register and translation, as well as the terminological, textual, scientific equivalence in selecting the accurate strategy and procedure in translation .For this reason, we opted for a comparative analytic method that we see fits the best since our task is to identify all what have been mentioned in comparing the English to the Arabic materials.

Key words: veterinary science, specialized translation, textual equivalence, terminological equivalence, scientific equivalence.

List of abbreviation

Source Language SL

Target Language TL

Source Text ST

Target Text TT

Language for specific purposes LSP

British standard institutions BSI

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Introduction

Needless to mention the importance of translation in helping people who do not speak the source language, or they are not from the same speaking community to communicate effectively. Translation is considered as one of the most important ancient tasks performed by human. It gains its significance from being one of the tools used in conveying the knowledge possessed. With the technological and scientific development in recent years, we find an exponential increase in the demand for specific types of translation. Translation like other disciplines is diverged into different styles such as veterinary translation, medical translation, and literary translation and so on veterinary translation has its own terminology.

The research problem

Veterinary science is always linked to medical science and as advances have been made in treating sick animals across the world, it has accumulated a specific terminology of its own. The advances we always see in veterinary medicine sometimes have their sources and needs abroad and so there is a need to translate journals, articles, reports and product documentation to ensure the animals are safe while benefiting from new technologies. This leads us to think about the difficulties that translators in this field may encounter and the different procedures and strategies they adopted in order to render such type of a text in a better way.

The purpose of the study

The present study aims to highlight the problems that translators encounter when attempting to translate specialized field from English into Arabic. In addition, to highlight the methods and strategies that often used when dealing with such specialized field.

The objectives of the study

The objectives of this research are numerous but most outstanding are:

the first is to see how to overcome the linguistic and terminological translation problems in using certain strategies/procedures during the process of translation.

to contribute in facilitating the work of translators while translating veterinary science.

The research questions

In attempting to examine the translation problems encountered in translating scientific texts and terms from English into Arabic, it is necessary to answer these questions:

- 1- What are the most common constraints encountered by the translators during the translation of veterinary texts and terms from English into Arabic?
- 2- What kind of procedures and strategies used in translating veterinary texts and terms?
- 3- To what extent do veterinary texts and terms have real equivalences in Arabic?

Hypotheses

In an attempt to answer the questions raised in this research paper we hypothesize the following:

First: Veterinary texts are not that different from any other technical/scientific texts. However, this field is deeply rooted in the Arab *BIMARISTAN* and hence most of the terminology do really exist and should not be retranslated literally or by any other means.

Second: If translators in this field do rely upon a variety of procedures along with bi-specialist, they can produce a text that is close to the original

Methodology

The approach used in this research is descriptive analytic one as we try to investigate the procedures and strategies used in translating Veterinary science. This we think can only be achieved through a descriptive theoretical comparative methods in selecting texts to analyze in terms of connectors , style , lexis and terminology ; grammatical and lexical features. These methods help identify the difficulties encountered in translating the Veterinary Terms and texts.

Structure of the study

This study is divided into two chapters the first chapter is theoretical framework and second chapter is practical framework

The first chapter is divided into three parts. The first part is about specialized translation and veterinary science; it contains definition of specialized translation, text typology, definition technical text and characteristics, as well as definition of scientific text, and its characteristics.

In addition, veterinary science, also veterinary text, moreover, veterinary types, then, veterinary translation.

The second part is about veterinary science translation terms, is dealing with definition of term and terminology, also ,procedures of veterinary science terms, besides, strategies of translating veterinary science texts.

The third part is about problems of translation veterinary science texts, is dealing with grammatical problems, lexical and stylistic problems. Moreover, equivalence forms, at word level, above word level, at sentence level and discourse level.

the second chapter is the practical part on which all the information that were given in the previous theoretical parts are to be applied in the corpus through a process of description and analysis, between source language (English) and target language (Arabic).

Chapter one: theoretical framework

1.1 Part one: Veterinary Science and Specialized Translation

Introduction:

This part is divided into three parts; the first part is about translation and veterinary science starting with definitions of specialized translation, next, text typology, as well as, definition of technical text, besides the characteristics of technical text .Also, definition of scientific text and characteristics of scientific text. In addition, veterinary science, veterinary text, then veterinary types, next, scientific translation ,and veterinary science translation .The second part is about translating veterinary science terms and texts starting with definition of term and terminology, then, veterinary science terms, , next, procedures in translating veterinary science terms, as well as, strategies in translating veterinary science text. The third part is about problems in translating veterinary science, and equivalence forms.

1.1.1 Specialized translation:

Mentioned by Scarpa as cited in (Palumbo 2009, p.108) the term specialist translation, also referred to as LSP translation, where LSP stands for Language for Special or Specific Purpose can be defined as the translation of texts dealing with subject-specific knowledge, using specialized terminology, having a particular communicative purpose and addressing a specific audience.

In general it refers to the translation of specific field that requires specialized knowledge. For example, as our study case the veterinary science this includes type's veterinary medicine.

1.1.2 Text typology:

Needless to say that not all texts are of the same type , we may distinguish between many type of texts, medical , legal, political may see the similarities between them but are not the same for instance argumentative texts differ from expository texts, etc. All types of texts differ in ways that are a little clear intuitively (Trosporg, 1984)

Reiss (1970) argued that Typology of texts classification based on texts types, a text typology along functional lines could include descriptive, narrative, argumentative texts.

Reiss notion of text types mainly focuses on different texts functions in the culture they were produce in and how these function can be reflected in the translation of text.

Text typology determines the procedure of translation and methods. (as cited in Munday,2001,p73.p74).

1.1.3 Definition of technical text

The term “technical” is suitably all embracing as to include the scientific discipline (medicine ,chemistry, ect) fields of applied technology (computer, engineering etc.) and even less obviously scientific subject such as geography , economics.

The authors of “*Machine Translation: An Introductory Guide*” (1994) state that technical texts “typically contain large numbers of terms” (p.45). It is clear that many people employ this notion and it is likely that their understandings of it do not all accord with one another.

1.1.4 Characteristics of technical text

- Technical text is excluded literature, most journalism, advertising, commerce, and the law.
- It is formal and impersonal.

1.1.5 Definition of scientific text

A text is a coherent set of statements to communicative purpose through signs. The scientific word, in turn, means what belongs or relates to science (i.e. the set of methods and techniques for organizing information).(what is meaning,2015)

1.1.6 Characteristics of scientific text

- Uses clear language, with a not too complex syntax and phrases ordered, the objective being that the information is not poorly interpreted: these texts should therefore be accurate.
- Based on the use of scientific language.
- Avoid ambiguous terms so that the meaning of the words is unique, with a single meaning and only one served.
- To do this, it must minimize any kind of subjectivity and rely on concrete information rather than opinions.

- The scientific text is understood by any person belonging to the target group to which it is addressed.
- It must aspire to universality using a specific terminology while allowing for precise and accurate translations in other languages where the erroneous interpretations have no place.
- The scientific texts present statements that are subject to an important check to ensure that their information is credible and real.
- This kind of text is generally produced in a scientific community to communicate and demonstrate the progress achieved in research work.
- Through scientific disclosure magazines, these contents reach as many receivers although these publications as rather tend to use a language accessible to the average reader (general public).

1.1.7 VETERINARY SCIENCE:

The science and art that deals with the maintenance of health in and the prevention, alleviation, and cure of disease, injury in animals and especially domestic animals. The veterinary science is an important, and long neglected, field of specialization for any life sciences translator.

1.1.8 Veterinary scientific text

Scientific text and Technical text are usually free of emotive language, implications and metaphors. Its language is concept centered. However, the difficulty arises from translating its terminology. For example, veterinary terminologies in the SL are relatively context free. According to BSI, (British standard institutions) terms may have more than one meaning in the same field or even in other fields.

1.1.9 Types of veterinary:

Veterinary surgical,

Veterinary nursing,

Veterinary anesthesia

Veterinary pharmacist

1.1.10 scientific translation

Ghazzala (1995) said “Scientific translation is mainly about translating terms in the field of science and technology of all kinds, medicine, physics, and chemistry, mathematics, and computer sciences...from one SL into TL”. Scientific translation is not like general translation, it aim to transmit scientific information from SL into TL. Also, it deals with texts on subject based on applied knowledge from the natural sciences. Each field of science has its specific language so it is a must for the translator to have a specific scientific background which allows him to translate from one language into another. The translator of Mathematics for instance, needs to know the mathematical terms and abbreviations. (opt.cit).

1.1.11 Veterinary science translation:

Is part of specialized translation which is technical translation. Newmark (1988) argues that technical Translation of veterinary science is considered as a universal rather than cultural method. Technical translation is at most different from other types of translation by terminology. Technical terms generally make up about 5-10 % of the whole text (p.151).

However, the difficulty arises from translating its terminology. For example, veterinary terminologies in the SL are relatively context free. According to BSI, (British standard institutions) terms may have more than one meaning in the same field or even in other fields. Therefore, the translator does not need to be an expert in the topic but he has to have a good knowledge by understanding the text and the words in use to examine these terms carefully in order to come up with the best equivalence in the TL. (New mark, 1988)

1.2 The second Part: translation of veterinary science terms and texts

1.2.1 Definition of terminology:

According to the Oxford Compact dictionary (2011) “the special words and expression that are used in particular profession, subject”

M. Teresa Cabre (1998), defined the terminology “as field, terminology is a subject which is interested with specialized terms; as practice it is the series of principles oriented across term classification; finally as product is set of terms from giving subject field”

1.2.2 Veterinary Science Terminology:

Human health is affected by animal health and vice versa. Studying veterinary medicine terminology is very similar to learning a new language. At first, the words seem strange and complicated, although they may stand for commonly known disorders and terms. For example, 'Gastrology' Gastr means stomach, "O" is combining vowel, and logy is study of. Your first task in learning the language of veterinary medicine is to understand how to divide words into their component parts. Logically, most terms, whether complex or simple, can be broken down into basic parts and then understood.

1.2.3 Procedures and Strategies of translating veterinary science terms texts.

1.2.3.1 Borrowing:

According to Vinay and Darbelnet (1995, p31-32), borrowing is the simplest strategy, they said that "in order to introduce the flavor of SL culture into translation, foreign terms may be used"

Also As reported by Dickins et al. (2002)"the first alternative is to transfer an SL expression verbatim into the TT. This is termed cultural borrowing. It introduces a foreign element into the T.T. (p32).

1.2.3.2 Calque:

A calque is a loan translation, in accordance with Vinay and Darbelnet (1995, p. 32), this procedure refers to "a special kind of borrowing whereby a language borrows an expression form of another, but then translates literally each of its elements"

A calque is a translation strategy which is defined as "An expression that consists of TL words and respects TL syntax, but is unidiomatic in the TL because it is modeled on the structure of an SL. expression"(Dickins, Hervey, &Higgins, 2002, p.31).

1.2.3.3 Adaptation:

Mentioned by Vinay and Darbelnet" It is used in those cases where the type of situation being referred to by the S.L message is unknown in the T.L culture. In such cases translator have to create a new situation that can be considered as being equivalent".

According to Peter New mark (1988, p.46).Adaptation is the freest of translation, it is used mainly for plays (comedies) and poetry. Plots are usually preserved, the source language culture converted to the target language and the text rewritten.

1.2.3.4 Transposition:

Vinay and Darbelnet defined transposition as follows "The method called transposition and it involves replacing one word class with another without changing the meaning of the message"(Vinay and Darbelnet 1995:p36).

1.2.3.5 Transliteration:

This technique is used when the other technique does not result in the desired purpose; it is a letter for a letter exchange.

Is a technique in which it is a phonetic transliteration from a source language of a word by the usage of differing script is called transliteration; that is, to transliterate is to write a letter or a word using the closet corresponding letters of a different alphabet or language (Compact oxford English dictionary,2008,p.1101).

1.2.3.6 Arabization:

Ghazala(1995)defined this procedure "naturalization "he states that "it is to take the English term and adapt it to Arabic alphabet and grammar, by changing one or two of its letters into the Arabic ones and having singular, plural, masculine, feminine or verbs forms of it". In a similar case, Mattlub define this procedure "As the writing of foreign words in Arabic or orthography" (mattlub, 1983, p29).

However, Hashim (1988) sees that Arabization "As the use of Arabic as the language of thought education, science and communication".

For instance: serologist, serologic translated into TT: السيرولوجيا, السيرولوجي

1.2.3.7 Literal translation' word for word':

"Literal, or word for word, translation is the direct transfer of a S.L text into a grammatically and idiomatically appropriate T.L" Vinay and Darbelnet (1995:33-34).

In addition as judged by (Ghazala, 1995,p5) "this method regards translation to be a translation of individual words. All we have to do is find the equivalent word in Arabic for the English word, regardless of differences in grammar, word order, context or special use. Moreover, the whole concentration is on the source language, whereas the target language should follow, imitate and mirror it blindly, perfectly, straight forward way of translation, which makes it common among students in particular".

1.2.3.8 Translation by omission:

As defined by (Dickins, Hervey,&Higgins,2002,p.23)"the most obvious form of translation loss is when something which occurs in the ST is simply omitted from the TT. Such omission occurs fairly frequently in Arabic /English translation and is therefore worth specifically identifying".

1.2.3.9 Translation by addition:

As judged by (Dickins, Hervey,&Higgins,2002,p.23)"translation by addition in translation in which something is added to the TT which is not present in the ST. like omission, addition is fairly common feature of Arabic/English translation and is therefore worth specifically identifying".

1.3 Third Part: Problems in translating veterinary science

Argue with Ghazala(2011)" translation can be posed by grammar, style or sound thus. we have grammatical, lexical, stylistic, and phonological"(p18)

1-Grammatical problems:

Grammatical problems may occur to complicated SL grammar, different TL grammar or difference in TL word order (p18).

2-Lexical problems:

These problems occur when a word or a phrase is not known by student at all, misunderstood, or not found in dictionaries. These problems may occur to literal translation (of meaning), synonymy.....

3- Stylistic problems:

Now days, style was considered as part of meaning, not like in the past, style is rightly seen as part of meaning. The style of the ST may pose problems for the translation, such as, formality vs. informality and the style of passive and active voice, and complex vs. simple style...etc

1.3.1 Equivalence forms:

We must define translation before talking about equivalence forms, which is the replacement text in one language by representation of an equivalent text in a second language. (Bell, 1991, P.6)

Conforming to Baker (1998) equivalence indicates “the relationship between a source text (ST) and a target text (TT) that allows the TT to be considered as a translation of the ST in the first place”.

Mona Baker in her book (In Other Words) (1992) suggested different levels in the issue of equivalence, including all different aspects of translation.

1.3.1.1 Equivalence at word level:

we primarily to tack into consideration by translator, in agreement with Bolinger and sears as cited in Baker (1992), the word is “the smallest unit of language that can be used by itself” meaning can be carried by units smaller than the word, e.g. reread, there are different component of meaning in it re and read (to read gains)

Component of meaning are represented by many orthographic word in one language, moreover, may be represented by one orthographic word in another and vice versa (Baker, 1992, pp10-11)

1.3.1.2 Equivalence above word level : otherwise, we move to equivalence above word level that mentioned by Baker (2002) discuss the issue of word classes the each word start combining with other word to form expression extension of language in this field Baker focuses in collocation and fixed expressions.

1.3.1.3 Equivalence at sentence level: The grammatical category difference of the source and target language often outcome some change in the information content of the message through translation this change occur in distinct form to illustrate the strategy of omission to the source text information that does not exist in the target text. Moreover the strategy of addition a grammatical category, that does not exist in the source language.

1.3.1.4 at discourse level: Cohesion and coherence are to main aspect of discourse. Coherence is probably the main component of any form of textual study because if a text is not fully understood a ‘good’ text was not produced.

First

Cohesion: Cohesion describes the ways in which components of the sentences of a text, i.e. the words we actually hear and use are mutually connected (grammatically and lexically). According to Halliday and Hasan (1976:11), cohesion exists “where the interpretation of any item in the discourse requires making reference to some other item in the discourse”.

Following Baker as cited in Halliday and Hasan identify five main cohesive devices in English: reference, substitution, ellipsis, conjunction, and lexical cohesion.

Second

Coherence: is defined by Neubert and Shreve (1992:94) “A coherent text has an underlying logical structure that acts to guide the reader through the text” so that “it ‘sticks together’ as a unit” (Hatch 1992:209).

1.3.2 Conclusion:

To conclude, No one can translate correctly or perfectly, we can say that both veterinary non- expert's translators and – veterinary professional translators may face any difficulties during translation of veterinary science from English language into Arabic language. To solve these problems, the translator may use procedures and strategies to find accurate equivalent to source language into target language

Chapter two: Practical framework.

Introduction:

This chapter shows the practical part of this study .it attempts to investigate the procedures and strategies used in the veterinary science. The researcher adopted a comparative analysis to compare between the SL and the TL equivalents which are provided.

2.1 The corpus:

The corpus we have chosen is *zoonoses and communicable diseases common to man and animals*. We have chosen this corpus because it is a scientific document that contains texts and terms which serve this study.

This document in its English version comprises 395 pages This corpus was written by Pidron Atsha and Bouris Tsivirs . Whereas, the Arabic version contains 569 pages translated into Arabic by Health world organization-East Mediterranean Pole ...

This corpus is the third edition. The English version published by Pan American Health Organization (P A H O) in 2003.The Arabic version published by (E M R O) in 2006.

2.2 Methodology:

The methodology which is adopted in this practical part is comparative analytic aims to investigating the procedures and strategies used in translating veterinary science, between the SL and TL.

2.3 Corpus analysis:

As mentioned previously, this analysis shall go through a comparative and descriptive study of translation of *zoonoses* and communicable diseases common to man and animals between SL and TL, in order to investigate the translation procedures, and strategies employed in this corpus when translating English veterinary terms and texts into Arabic

On other hand, our analysis will discuss below the procedures and strategies applied in corpus, and identify constrains that translators encounter during translating some fragments in the book, its title is *zoonoses and communicable diseases common to man and animals*. We can suggest some solutions if found.

2.3.1 Pattern 01(see appendix, p28)

Selecting the procedures, strategies, and constraint in the next analysis pattern

2.3.1 .1 Analysis of pattern 01

In the passage (see appendix, p28) we found some feature of scientific terms, including: etiology, pathogenic, epidemic outbreaks, hyperendemic areas, lethal factor, and toxin. The translator translated them into Arabic as "السببيات", "المرض", "الفاشيات الوبائية", "المناطق المفرطة التوطن", "العامل المميت", "التوطن", "سام".

Table N° 1: Showing feature of scientific terms

ST	TT
Etiology	السببيات
Pathogenic	المرض
epidemic outbreaks	الفاشيات الوبائية
Hyperendemic areas	لمناطق المفرطة التوطن
lethal factor	العامل المميت
Toxin	سام
Plasmid	بالبلازميدة

In English we distinguish between infections, disease, pathology they are all translated with one generalized word "المرض" which makes lost the specific meaning intended by the writer in English version.

The translator in rendering the term etiology did not distinguish between the noun "السبب" and the noun agent "مسبب" because etiology stands for "مسبب" that creates the cause not the cause itself. So would be better if translated "المسببات"

In addition, the translator used full borrowing and calque as procedures, as illustrated examples in in the table below:

Table N° 2: Showing procedure of Translation pattern 01

ST	TT	Procedure
Gamma	غاما	full borrowing
Protein	بروتين	full borrowing
Edema	الوذمة	Arabization
Plasmid	بالبلازميدة	Transliteration
Subcutaneously	داخل الجلد	Transposition

The translator tried to make the terms seem Arabic as possible as he can: he replaced the latter “G” with the letter “غ” in Arabic so gamma becomes “غاما”. Though he transliterated “plasmid”, but made it taste Arabic by adding the different article “الـ” and final particle of gender denoting feminine “ة”. For “subcutaneously” which is used as an adverb, it is mistakenly transposition into Arabic with noun + noun. The prefix sub means directly below the surface. However the translator used the word “داخل” which hurts the meaning of prefix and make more general than English equivalence. We propose to replace “داخل” by “تحت”.

We found transposition in “work in establishments where wool, goatskins, and pelts are stored and processed” translated as “يعملون في مصانع معالجة او تخزين الصوف و جلود الماعز و الجلود غير ” and “livestock”, “يتعاملون مع الماشية”, “anthrax animal” “الجمرة الحيوانية”. Modulation method in this sentence “domestic animal” translated into “الحيوانات الداجنة”.

Furthermore, the translator used expansion in next examples the sentence “domestic animal” was translated into Arabic literally as “الحيوانات الداجنة” and the latter is not accurate translation which may mislead the user. On this basis it is appropriate, to translate it into Arabic by “الحيوانات الاليفة”. Using “الحيوانات الداجنة” as localized term known in Middle-east may mislead the reader in the Maghreb because he /she uses الاليفة instead of الداجنة which means in Nord African countries this word refer just to hence.

Besides, the translator used expansion in next examples the sentence “exotoxin” was translated into Arabic literally as “بديفان خارجي” and the latter is not accurate translation which may mislead the user. On this basis it is appropriate, to translate it into Arabic by “السموم الخارجية”. He was using “بديفان خارجي” as localized term.

Some problems shown in the passage above, like the SL word is semantically complex, especially in the words “Syndrome: is a set of medical signs and symptoms that are correlated with each other” the translators here use one word rather than explain relation between signs and symptoms. We notice that translator refers to specific terms with general words Moreover, the word phagocytosis is consisted of three parts (phageo means to devour, cyto means cell and osis means process) were translated into Arabic by “البلعمة” as we see, the translator always tends to replace specific terms with general ones.

Dealing with lexical problems the translator used synonymous namely: toxin, virulent translated into Arabic “سام” the translator cannot use one equivalent in this case changed several

words refer to the same thing. In addition, the problem of collocation this included “epidemic outbreaks” translated into Arabic “فاشيات وبائية” as case in point in this collocation when translate word isolated there is difference between “epidemic” and “outbreaks”. The first mean” it is an occurrence of a group of illnesses of similar nature and derived from a common source”,” An outbreak is the sudden occurrence of a disease in a community, which has never experienced the disease” as reported by site web (<http://www.iflscience.com/health-and-medicine/what-s-difference-between-outbreak-and-epidemic/>). We can mention problem of misinterpreting the meaning of SL collocation. Also Oxford dictionary (2011) defined the word “outbreak” “A sudden occurrence of something unwelcome, such as war or disease” (p310).and the word “epidemic” “disease that spreads quickly among many people”, “A widespread occurrence of an infectious disease in a community at a particular time”. (p149)

NB: translator did not try at all distinguish between synonyms used in the source text. He used one equivalent for two different terms put as synonyms as in:

English word	Synonyms	Arabic equivalence
Virulent	Toxin	سام

Table N° 3: Showing Translating Synonyms pattern 1

Dealing with the **stylistic problems**, we found some cases when the passive vs active, simple vs complex, and formal vs informality are used , for instance the sentence “a child who later died” translated into TT “هو طفل توفي لاحقا”the ST use of complex sentence and the TT used a simple one. However, in passive the ST has two types of agentive and agentless but the TT only has the agentless .This creates problem of how one can translate agentive passive style as pointed in the case below:

“Virulence is determined by a capsule, and an exotoxin” translated into Arabic

”تتحدد الفوعة بمحفظة تثبط البلعمة و بديفان خارجي“

In TT is keeping the theme (subject) and rhyme (predict)

In the case of formal style we mention next example “according to date from recent years , epidemic outbreaks continue.....”Translated into Arabic by “ حسب المعطيات المتوفرة في السنوات “ ”الاحيرة تستمر الفاشيات الوبائية بالرغم من توافر اجراءات وقائية

2.3.2 Pattern 02 (see appendix , p31)

2.3.2.1 Analysis of pattern 02

The scientific text is characterized by impersonal style 'it', used formal style rather than informal such as "According to official country..... Reports cases of Glanders". The Arabic version is an imitation of the English version in terms of style and that by keeping the same subject (theme) and (predict)rhyme.

We found in passage above the use of SL word for instance "pseudomonas mallei" الرعامية "it has not equivalent in TL, in addition, use of borrowing procedure in "genus pseudomonas" translated into Arabic "جنس الزائفة". Expansion translation ST is "the disease in man is exceptional" translated into Arabic by "استثنائي بشكل استثنائي" also, in the next sentence expansion translation used "Glanders is primarily a disease of solipeds" translated into Arabic by ".....الرعام هو بشكل أولي، مرض يصيب الحوافر؛" , and transliteration such as 'genus' translated into Arabic "جنس"

Furthermore, the Grammatical problem appeared in the sentence" glander....of solipeds" is verbal sentence but translator translated into Arabic by nominal sentence" الرعام هو بشكل أولي، "مرض يصيب الحوافر؛" without verb "to be" he omitted verb in TT. The translator did not respected word structure in TT (Arabic), he used submission and delay for instance pronoun (هو) can moved front to (مرض).

2.3.3 Pattern 03(see appendix p34)

2.3.3.1 Analysis of pattern03

In this passage we found some characteristics, which is passive voice e.g. infection caused by B.suis translated into "تصاب الماسية بالعدوى ايضا" here translator respected word order of ST in TT. Other example: the infection in cattle caused by heterologous translated into Arabic العدوى الناجمة عن البروسيلة مالطية

The Arabic version there was a kind of implicitly translated by keeping the same effect as the same form, and here the translator neglected the Arabic style that the former focuses more on explicitness and avoiding ambiguity.

The procedures used in this pattern are adaptation, expansion, naturalization especially in next examples: Pathogen is B .abortus. Biovar translated into Arabic البروسيلة المجهضة, الضرب الحيوي.

In addition, the translator use naturalization methods include the word” serologic incubation” translated into “الحضانة السيرولوجي”, oxidative translated into “تأكسدي”. We found passive style in sentence “frequent in patients’ infection by B.melitenis

In a similar case draw the table below showing more examples

SL	TT	Strategy / procedure
Serological	السيرولوجي	Naturalization
Oxidative	تأكسدي	Naturalization
B .abortus	البروسيلة المجهضة,	Literal translation
B.melitensis	البروسيلة المالطية	Adaptation

Table N° 4: Showing strategies/ procedures used in pattern 3

The expression “the clinical disease” was translated literally by “المرض السريري”is not appropriate to translate the word "clinical"by”السريري”but rather to translate it by اعراض اكلينكية للمرض. Here shown problem of lexical ambiguity between the word clinical and symptom.

Next we will by way of illustration draw the table below showing more examples:

ST	TT	Methods
phagocytolysis	تخرب البلعمة	Expansion
Abortion and delayed conception	الإجهاض أو الولادة المبكرة	Equivalence
erythritol,	الإريثريتول	transliteration
Ampullitis	التهاب الأمبولة	Expansion

Table N° 5: Showing strategies/ procedures used in pattern 3

At level of textual we find many devises of cohesive like conjunction (and, also), referential devises use of pronouns e.g : “it”, demonstrative (this,that), and substitution replaced the word infection by bacterium and name of disease B.abortus, repeat key nouns such as “infection, B.abortus, disease, brucellae”

In addition, use of collocation consider as lexical problem like lymph node, clinical symptoms, intravenous administration translated into TT by (عقد اللمفاوية, اعراض سريرية), stylistic problem

2.3.4 Pattern 04(see appendix p36)

2.3.4.1 Analysis of pattern04

In the pattern 04 we found some characteristic which are : use of long nominal groups, containing adjective or nouns, frequent passives voice which have putting important ideas in primary position this include :” symptoms are insomnia, sexual impotence, constipation, anorexia, headache, arthralgia, and general malaise”. Translated into Arabic by

“الأعراض الشائعة هي الأرق والعنائة الجنسية والإمساك والقهم والصداع والألم العضلي والتوعك العام. للمرض أثر واضح على الجهاز العصب ي، يتجلى بالتهيج والعصبية والاكتئاب ”

The translator used synonymous such as general malaise, fatigue, insomnia,and putting passive voice in fragment “human infection cause by B.abortus

Furthermore, The expression “The disease is septicemic” was translated literally by “انتان دموي”is not appropriate to translate the word "septicemic"by”انتان”but rather to translate it by تعفن الدم

In a similar case , the translator translated sentence “ Once an infected cow aborts

” by “تجهض البقرة المنعدية”,he in rendering the word an infected into Arabic by “ المنعدية” .is not appropriate to translate the an infected . it can be translated by the word مصابة بالعدوى or مصابة

In additionally, translator used of synonymous consider as lexical constraints, and at side use of general words in other side use of specific one. the table below showing some examples :

ST	Synonyms	TT
temperature	Febrile /fever	الحمى
fatig	Insomnia	ارق
Liver	Hepatic	الكبد

Table N° 6: Showing synonyms used in pattern 04

In the pattern 04: we found some procedures used by translator like, revival for instance “vaccine” rendering into “اللقاح”.

We discover in the pattern the use of cohesion devises such as conjunction :(but, and); substitution: (missed replaced by spleen; liver replaced by hepatic) translated into Arabic by (الطحال) و الكبد in the a similar case for example: fibril, fever, temperature indicate the same translated as ارتفاع درجة الحرارة however the methods used in this example are mixed between equivalence and expansion

2.3.5 Findings solution and recommendation

Through the process of comparison between the zoonoses and communicable diseases common to man and animals that is written in English language (ST) and its translation into Arabic language (TT), the following were discovered:

2.3.5.1 At word level, above word level

The analysis of patterns 01 to 04 shows that the procedures and strategies used in translating terms and texts into Arabic language, including literal translation, transposition, translation by addition, expansion, modulation, adaptation, calque, transcription, and transliteration ; the most used procedure is literal translation which was appropriate in some cases and inappropriate in others.

-Through the process of analyzing patterns 4, we have found that the translator translated most of the patterns into Arabic by keeping the same degree of ambiguity and implicitness in translating the sentences, and neglected the Arabic style in terms of achievement cohesion and coherence.

Also, we saw that the structures of sentences were kept in the translated version into Arabic since the nature of the texts.

_beside, we suggest some solution conforming to Ghazzla said “the solution proposed to translation problems are, therefore, based on the following criteria”:

- ✓ The type of text e.g.: technical, scientific.....
- ✓ The type of minor, major linguistic context.
- ✓ The type of readership e.g : highly educated reader, specialist, or layman(farmer).
- ✓ The possibility of saying something in the TL or not e.g : we can say (الحيوانات الاليفة) , but not (الحيوانات الداجنة) (2007.p79)

All, if not the major of all terms analyzed in corpus are retranslated directly from the ST (English) while ignoring completely the vary terminology used by the ancient Arab veterinary mainly related to animal know in the Arabic area.

Translators in veterinary are either specialized in the field, not specialist in the language or specialist at all linguistic levels of the terminology but ignorant of old glossary written by Arab veterinary scholars

Translator did not opt for one systematic pattern of terms as he changes without no reason translation of the same terms thought context is the same as in :

B.Abortus	البروسيل المجهضة
B. melitensis	البروسيل المالمطية

Table N07 showing same context used difference terms

Translator used same classical terms as in :

SL terms	TT terms	Other terms
sexual impotence	العنانة الجنسية	ضعف الانتصاب ضعف الجنسي
Anorexia	القهم	فقدان الشهية
Capsule	الفوعة	

Table N 08 showing classical terms

Shows that translator is competent to an extent in Arabic language which mixes it in good position to correctly retranslated texts with more classical Arabic terms as used in old times.

Translating veterinary texts need as do the other technical texts a translator who is versed in the very field and in the same time versed in the two languages' so that he can identify the nuances between the different various terminologies used within the text.

- Modern Arabic language does not express veterinary terms as did the Classical one 8 centuries ago when the veterinary medics themselves were Arab and found all equivalent terms they needed and even created their own ones.

2.4 Conclusion

To sum up, the general noticed result is general use of literal translation as the main procedure. Since it's a veterinary text, the translators used adaptation procedure of veterinary related terms; they sought the natural equivalence in TL. In addition to the use of expansion, they added verbs to explain some veterinary operation. With limited use of transposition (to coup with TL context)

This chapter was presented in order to answer some questions raised by this study, concerning the procedures and strategies of translating veterinary science terms and texts from English into Arabic language.

The most common constraints encountered by the translators during the translation of veterinary texts and terms from English into Arabic especially in lexical, syntactical, grammatical, and conceptual one. In addition, encountered the constraint at word level to illustrate the SL word is semantical complex, and the constraint above word level an example misinterpreting the meaning of SL collocation. This includes, lack equivalent in TL

Also, the translator used in translating veterinary texts and terms procedures and strategies for instance transcription, calque, expansion, literal translation, Arabization and borrowing.

In other word, the strategies used in word and above word level are translation using a loan word or loan word plus explanation and rewording.

The extent do veterinary science texts and terms have true equivalence in Arabic. In terms of chosen methods and strategies by ask the following question who is the end reader receive translation , what is the context?

General conclusion:

This dissertation attempt to investigate the strategies and procedures that the translators use when translate English veterinary science into Arabic. We talk about veterinary science and their elements, and to highlight some constraints of translating this science into target language .In addition we attempt to find out the procedures used to translate this science.

The practical part of this dissertation lead us to understand the strategies and procedures used by professional veterinary translators, in order, to deliver English veterinary science into Arabic language .The results of this dissertation indicated a fact that most of veterinary translators used the literal translation as procedure, also, used of adaptation and full borrowing .In addition to the use of expansion, to find accurate equivalence of English veterinary science into TL.

Appendix

I. English Arabic appendices

Pattern 1

ANTHRAX

Synonyms: Malignant pustule, malignant carbuncle, charbon, hematic anthrax, bacterial anthrax, splenic fever, woolsorters' disease.

Etiology: *Bacillus anthracis*, an aerobic, nonmotile, gram-positive bacillus 3–5 microns long that forms centrally located spores. It should be differentiated from *B. cereus*, which is quite similar. One of the media used to differentiate them is the gamma phage specific for *B. anthracis*. The etiologic agent is found in a vegetative state in man and animals. When exposed to oxygen in the air, it forms spores that are highly resistant to physical and chemical agents.

In nature, *B. anthracis* occurs in a virulent form—the pathogenic agent of anthrax—and in an avirulent form. Virulence is determined by a capsule that inhibits phagocytosis and an exotoxin, both of which are plasmid mediated. In turn, the toxin consists of three protein factors: the protective antigen, the lethal factor, and the edema factor. None of these factors is toxic by itself. When injected intravenously at the same time, the protective antigen and the lethal factor are lethal in some animal species. The combination of the protective agent and the edema factor produces edema when injected subcutaneously (Little and Knudson, 1986).

Geographic Distribution: Worldwide, with areas of enzootic and sporadic occurrence.

Occurrence in Man: The infection in humans is correlated with the incidence of the disease in domestic animals. In economically advanced countries, where animal anthrax has been controlled, it occurs only occasionally among humans. Some cases stem from the importation of contaminated animal products. Human anthrax is most common in enzootic areas in developing countries, among people who work with livestock, eat undercooked meat from infected animals, or work in establishments where wool, goatskins, and pelts are stored and processed. The incidence of human illness in developing countries is not well known because those sick with the disease do not always see a doctor, nor do doctors always report the cases; in addition, the diagnosis often is based only on the clinical syndrome. According to data from recent years, epidemic outbreaks continue to occur despite the availability of excellent preventive measures for animal anthrax and, therefore, for the occurrence of the disease in humans. There are some hyperendemic areas, as was shown in Haiti when an American woman contracted the infection after acquiring some goatskin drums. Compilation of data in that country revealed a high incidence of human anthrax in the southern peninsula, Les Cayes, which has a population of approximately 500,000. From 1973 to 1977, 1,587 cases were recorded in the 31 clinics in that region (La Force, 1978). In Zambia, at least 30 people died from anthrax in 1992. Eastern Nigeria has a very high incidence of human anthrax (Okolo, 1985). On the borders between Thailand, Myanmar (Burma), and Laos that are crossed by animals transported from as far away as India, outbreaks occur frequently. In one Thai

village, several of the approximately 200 inhabitants participated in cutting up a buffalo that had supposedly drowned; eight of them became ill and one died with symptoms suspected of being anthrax (Ngampachjana et al., 1989). In a settlement in eastern Algeria, 6 cases of anthrax occurred in an extended family of 59 members. Those who fell ill had participated in laughing and butchering a sheep with symptoms that included hemorrhage, black blood, and splenomegaly. Fourteen animals of various ruminant species had died before the appearance of the index case, a child who later died (Abdenour et al., 1987). In the former Soviet Union, at least 15,000 cases of human anthrax occurred prior to 1917 and 178 cases were reported as late as 1985 (Marshall, 1988).

In enzootic areas, the human disease is usually endemosporeadic with epidemic outbreaks. The latter are caused primarily by ingestion of meat, often by many people, from animals who were dead or dying from anthrax when slaughtered (Rey et al., 1982; Fragoso and Villicaña, 1984; Sirisanthana et al., 1984). In 1978, in a region in the Republic of Mali, there were 84 cases with 19 deaths. High mortality, possibly due to intestinal anthrax, was also seen in Senegal in 1957, with 237 deaths out of 254 cases (Simaga et al., 1980). In 1979, an epidemic outbreak in Sverdlovsk, in the former Soviet Union, led to a controversy between that country and the United States. According to the former Soviet Union, fewer than 40 people died from gastric anthrax in this epidemic, while US intelligence sources claimed that several hundred to a thousand people perished from pulmonary anthrax within a few weeks. Later Soviet sources indicated a total of 96 victims, 79 suffering from intestinal infection (64 of whom died), and no pulmonary cases (Marshall, 1988). The controversy centered on whether the epidemic was natural or man-induced, since the US intelligence source suspected that an accident had occurred at a plant presumably engaged in biological warfare projects. If so, this would have indicated a violation of the 1975 treaty against biological weapons (Wade, 1980). Sverdlovsk is located in an enzootic area and, according to Marshall (1988), the source of infection was probably a bone meal food supplement on State-run and private farms. Using preserved tissue, Russian and American researchers were ultimately able to determine that at least 42 people had died from inhaling rather than ingesting the etiological agent. They thus confirmed the suspicion that the source of infection was airborne and probably came from an illegal plant that the Soviet authorities did not allow to be inspected.

Occurrence in Animals: Anthrax is common in enzootic areas where no control programs have been established. In a hyperenzootic area of eastern Nigeria, animals submitted for emergency slaughter were studied. There is no ante mortem inspection of animals in that region, thus increasing the risk of human exposure. Of 150 animals, 34 (22.7%)

Translation of Pattern 1

الجمرة الخبيثة ANTHRAX

المترادفات: البثرة الخبيثة، الجمرة الخبيثة . Carbuncle الجمرة الخبيثة . Charbon الجمرة الخبيثة الدموية، الجمرة الخبيثة الجرثومية، الحمى الطحالية، داء فارزي الصوف .

السبب: العصوية الجرثومية anthracis Bacillus، عصوية لا هوائية غير متحركة إيجابية الغرام طولها 5-3 ميكرونات، تشكل أبواغاً مركزية التوضع. يجب أن تفرق عن العصوية الشمعية المشابهة لها تماماً. أحد الأوساط المستخدمة لتفريقها هو العائنية غاما النوعية للعصوية الجرثومية. العامل السببي موجود بحالة إنباتية في الإنسان والحيوانات. حيث يشكل أبواغاً عندما تتعرض للأكسجين في الهواء، وهذه الأبواغ مقاومة جداً للعوامل الفيزيائية والكيميائية.

في الطبيعة: توجد العصوية الجرثومية بشكل مفعول - العامل الممرض للجمرة الخبيثة، وبشكل عديم الفوعة. تتحدد الفوعة بمحفظة تثبط البلعمة وبذيفان خارجي، وكلاهما متواسط بالبلازميدة. يتألف الذيفان بدوره من ثلاثة عوامل بروتينية: المستضد المحصن، والعامل

المميت، وعامل الودمة. هذه العوامل غير سامة بحد ذاتها. وعندما تحقن داخل الوريد بنفس الوقت: يكون العامل المحصن والعامل المميت قاتلين في بعض الأنواع الحيوانية. يحدث تشارك العامل المحصن وعامل الودمة وذمة عندما تحقن داخل الجلد (Knudson and Little, 1986).

التوزيع الجغرافي: عالمي الانتشار، مع مناطفة من الحدوث الفردي والمتوطن بالحيوانات .

الحدوث في الإنسان: تتوافق العدوى في البشر مع وقوع المرض في الحيوانات الداجنة. يحدث في البلدان المتقدمة اقتصادياً، حيث تمت مكافحة (السيطرة على) الجمرة الحيوانية عند البشر بشكل عارض فقط. تنجم بعض الحالات من استيراد المنتجات الحيوانية الملوثة. الجمرة البشرية أكثر شيوعاً في المناطق المتوطنة بالحيوانات في البلدان النامية بين الأشخاص الذين يتعاملون مع الماشية أو يأكلون اللحم غير المطبوخ جيداً من حيوانات مصابة بالعدوى أو يعملون في مصانع معالجة أو تخزين الصوف وجلود الماعز والجلود غير المدبوغة. وقوع المرض البشري في البلدان النامية غير معروف بشكل جيد لأن الذين يعانون من المرض لا يراجعون طبيباً دائماً كما أن الأطباء لا يبلغون عن المرض دائماً، إضافة لذلك غالباً ما يعتمد التشخيص على المتلازمة السريرية فقط. حسب المعطيات المتوفرة في السنوات الأخيرة: تستمر الفاشيات الوبائية بالحدوث رغم توافر إجراءات وقائية ممتازة من الجمرة الخبيثة الحيوانية، وبالتالي من حدوث المرض في البشر. هناك بعض المناطق المفرطة التوطن، كالذي شوهد في هايتي عند التقطت امرأة أمريكية العدوى بعد شراء بعض الطبول المصنوعة من جلد الماعز. أظهر جمع المعطيات في ذلك البلد أن وقوعاً عالياً للجمرة الخبيثة البشرية في شبه جزيرة ليس كياس، والتي تحوي جمهرة تقدر بـ 500 ألف تقريباً. سجلت 1587 حالة من عام 1973 إلى 1977 في 31 عيادة في تلك (La Force, 1978). تقطننا في زامبيا: مات 30 شخصاً على الأقل من الجمرة الخبيثة عام 1992؛ أما في شرق نيجيريا ففيها وقوع عالٍ جداً للجمرة الخبيثة البشرية (Okolo, 1985). وعلى الحدود بين تايلند ومينمار (بورما السابق) ولاوس والتي تعبرها الحيوانات المنقولة من مناطق بعيدة كاهند تحدث فاشيات بشكل متواتر. في إحدى قرى تايلند: شارك الكثير من الـ 200 قاطن تقريباً في تقطيع جاموس من المفترض أن يتخلصوا منه: أصيب 8 منهم بمرض ومات واحد بأعراض يشبهه بكونها جمرة خبيثة (al et Ngampachjana, 1989) في قرية صغيرة

شرقي الجزائر وكان الذين شعروا بالمرض قد شاركوا في سلخ وذبح خروف لديه أعراض تتضمن النزف والدم الأسود وتضخم الطحال . وقد مات 14 حيواناً من أنواع مختلفة من الإترات قبل ظهور الحالة الدالة، وهو طفل توفي لاحقاً . (al et Abdenour, 1987) في الاتحاد السوفيتي السابق : حدث ما لا يقل عن 15000 حالة من الحمرة الخبيثة البشرية قبل 1917 وتم التبليغ عن 178 حالة حتى (Marshall, 1985) 1991 يكون المرض البشري في المناطق المتوطنة بالحيوانات متوطناً فرادياً مع فاشيات وبائية . تنجم الأخيرة عن ابتلاع (أكل اللحم عادة، وغالباً ما يكون من قبل أشخاص عديدين، من حيوانات ماتت أو قتلت بسبب الحمرة الخبيثة عندما سلخت 5, 15) . (17, في عام : 1978 حدثت في منطقة من جمهورية مالي 854 حالة مع 19 حالة وفاة . شوهد معدل الوفيات المرتفع، والذي من المحتمل أن يكون ناجماً عن الحمرة الخبيثة المعدية، في السنغال عام 1957 مع 237 وفاة من أصل 254 حالة . (16) في عام : 1979 أدت فاشية وبائية في سفر دوفسك في الاتحاد السوفيتي السابق إلى خلاف بين ذلك البلد والولايات المتحدة . فحسب الاتحاد السوفيتي السابق : إن أقل من 40 شخصاً ماتوا من الحمرة الخبيثة المعدية في هذا الوباء، في حين تدعي مصادر استخباراتية أن عدة مئات إلى ألف شخص ماتوا من الحمرة الخبيثة الرئوية خلال أسابيع قليلة . أشارت المصادر السوفيتية إلى 96 ضحية، 79 عانوا من عدوى معوية (مات 64 منهم) ولم تسجل حالات رئوية . (10) تركز الخلاف فيما إذا كان الوباء طبيعياً أو محدثاً بالبشر، حيث تشك المصادر الاستخباراتية الأمريكية بأن عارضاً حدث في مؤسسة متورطة في مشروعات الحرب الحيوية . وإن كان كذلك، فإن ذلك قد يشير إلى أن انتهاك لمعاهدة 1975 الخاصة بالأسلحة الحيوية . (24) تتوضع سفر دوفسك في منطقة متوطنة بالحيوانات وحسب مارشال (1988) كان مصدر العدوى، على الأرجح، مكمل غذائي من العظم واللحم في مزارع خاصة وتديرها الدولة . وباستخدام نسيج محفوظ تمكن الباحثون الروس والأمريكان أخيراً من تحديد أن 42 شخصاً على الأقل ماتوا من الاستنشاق وليس من ابتلاع العامل السببي، وبذلك أثبتوا الفرضية القائلة أن مصدر العدوى كان منقولاً بالهواء، ومن المحتمل أنه أتى من مؤسسة غير شرعية لم تسمح السلطات السوفيتية بمراقبتها

Pattern 2

GLANDERS

Etiology: *Pseudomonas* (*Malleomyces*, *Actinobacillus*) *mallei*, a nonmotile, gram-negative bacillus that is not very resistant to environmental conditions; this is the only nonmotile species in the **genus** *Pseudomonas*.

Geographic Distribution: At one time, the disease was distributed worldwide. It was eradicated in Europe and the Americas, but foci reappeared in 1965 in Greece, Romania, and Brazil (FAO/WHO/OIE, 1972). The present distribution is not well known, but there are indications that it persists in some African and Asian countries; Mongolia is or was the area of greatest incidence. According to official country reports to the Food and Agriculture Organization of the United Nations (FAO), the International Office of Epizootics (OIE), and the World Health Organization (WHO), no government currently reports cases of glanders. Isolated suspected cases were noted in Mongolia and diagnostic tests were being conducted. No cases have been reported since 1991 in India and since 1987 in Iraq (FAO/WHO/OIE, 1992). **Occurrence in Man:** At present, the disease in man is exceptional, if it occurs at all. Attenuated strains of *P. mallei* are found in Asia, where the infection is assumed to persist.

Occurrence in Animals: According to various sources, incidence in solipeds is

now low or nonexistent in Myanmar (Burma), China, India, Indonesia, Vietnam, and Thailand, and the disease is seen only occasionally. Cases used to occur sporadically in Pakistan and rarely in Iran. In June 1982, 826 foci with 1,808 cases were reported in solipeds in Turkey and in 1984, 274 foci were reported (OIE, 1982, 1984). The incidence in Mongolia is believed to have been high. The present situation in Ethiopia and the Central African Republic is not known, but cases have occurred in these countries in recent years. The most recent information available is from the iGeographic Distributionî section of the Animal Health Yearbook (FAO/WHO/OIE, 1993). Based on the reports obtained, it would seem that the disease is becoming extinct. In endemic areas, the incidence of infection was higher during the rainy season. **The Disease in Man:** The incubation period is usually from 1 to 14 days. Cases of latent infection that became clinically evident after many years have been described. The disease course may be either acute or chronic. In addition, subclinical infections have been discovered during autopsy. In man as well as in animals, *P. mallei* tends to localize in the lungs, nasal mucosa, larynx, and trachea. The infection is manifested clinically as pneumonia, bronchopneumonia, or lobar pneumonia, with or without bacteremia. Pulmonary abscesses, pleural effusion, and empyema may occur. In the acute forms, there is mucopurulent discharge from the nose, and in the chronic forms, granulomatous nodular lesions are found in the lungs. Ulcers appear in the mucosa of the nostrils and may also be found in the pharynx. Cellulitis with vesiculation, ulceration, lymphangitis, and lymphadenopathy is seen on the skin at the etiologic agent's point of entry. Mortality in clinical cases is high. **The Disease in Animals:** Glanders is primarily a disease of solipeds. The disease course is predominantly chronic in horses and is almost always acute in assets and mules. The acute form results in high fever, depression, dyspnea, diarrhea, and rapid weight loss. The animal dies in a few weeks. The chronic form may last years; some animals recover, others die. Chronic glanders is characterized by three clinical forms, occurring alone or simultaneously: pulmonary glanders, upper respiratory tract disease, and cutaneous glanders. Pulmonary glanders can remain inapparent for lengthy periods. When clinical symptoms do occur, they consist of intermittent fever, cough, depression, and weight loss. In more advanced stages, there is dyspnea with rales. Pulmonary lesions usually consist of nodules or pneumonic foci. The nodules are grayish white with red borders; in time, the center becomes caseous or soft, or undergoes calcification and becomes surrounded by grayish granulated or whitish fibrous tissue. The upper respiratory disease is characterized by ulcerations of the mucosa (necrosis of the nodules is the initial lesion) of one or both nostrils and, frequently, of the larynx and trachea. The ulcers have a grayish center with thick, jagged borders. There is a mucous or mucopurulent discharge from one or both nostrils that forms dark scabs around them.

Translation pattern2

الزعام GLANDERS

السبببات (الزائفة) الزائفة Malleomyces، المشعشعة (Actinobacillus الرعامية، mallei Pseudomonas، عصية سلبية الغرام غير

متحركة لا تقاوم الشروط البيئية كثيراً. وهي النوع الوحيد غير المتحرك في جنس الزائفة .

التوزع الجغرافي: في وقت ما: انتشر المرض في العالم، وقد است وصل من كل من أوروبا وأمريكا، لكن عادت وظهرت بؤر عام 1965 في كل من اليونان ورومانيا والبرازيل . (4) التوزع الحالي غير معروف جيداً، لكن هناك دلائل على أنه ما زال مستمراً في بعض البلدان الأفريقية والآسيوية .منغوليا هي، أو كانت، منطقة الوقوع الأكبر وفق التقارير الرسمية لمنظمة الغذاء والزراعة (FAO) في الأمم المتحدة والمكتب الدولي للأوبئة الحيوانية (OIE) ومنظمة الصحة العالمية (WHO) فإنه لا توجد تقارير حكومية حالية عن حالات من الرعام. لوحظت بعض الحالات المعزولة المشتبهة في منغوليا وأجريت الاختبارات التشخيصية **الحدوث في الإنسان:** حالياً، إذا ما حدث المرض في الإنسان فإنه يحدث بشكل استثنائي وحدث ذراري موهنة من الزائفة الرعامية في آسيا حيث افتراض أن العدوى ما زالت مستمرة.

الحدوث في الحيوانات: اعتماداً على مصادر مختلفة فإن الوقوع في الحيوانات ذات الحوافر قليل أو غير موجود حالياً في كل من: ميانمار (بورما)، الصين، الهند، أندونيسيا، فيتنام، تايلاند، ويشاهد المرض بشكل نادر فقط. من المعتاد أن تحدث حالات بشكل فرادي في الباكستان، ونادراً في إيران. في حزيران : 1982 سجلت 826 بؤرة مع 808.1 حالة حدثت في الحيوانات ذات الحوافر في تركيا، وفي عام 1984 سجلت 274 بؤرة . (10) (9) يعتقد أن نسبة الوقوع عالية في منغوليا. الوضع الحالي في أنيوييا وجمهورية أفريقية الوسطى غير معروف، لكن حدثت بعض الحالات في تلك البلدان في السنوات الأخيرة . أحدث المعلومات المتوفرة مأخوذ من فصل التوزع الجغرافي في الكتاب السنوي لصحة الحيوانات . (6) وفق بعض التقارير يبدو أن المرض أصبح ينجو . في المناطق الموطونة: وقوع العدوى كانت أعلى خلال الفصول الماطرة .

المرض في الإنسان: يمتد دور الحضانة عادة من 14-1 يوماً. وصفت حالات من العدوى المستترة (الكامنة) التي ظهرت سريراً بعد عدة سنوات. قد يكون سير المرض حاداً أو مزمناً. بالإضافة لذلك فقد اكتشفت عداوى تحت سريرية أثناء تشريح الجثث . في الإنسان والحيوان: تميل الزائفة الرعامية للتوضع في الرئتين والمخاطية الأنفية والحنجرة وفي الأشكال المزمنة: تتشكل الآفات العقيدية الحبيبية في الرئتين . تظهر القرحة في مخاطية المنخرين وقد تحدث في الحنجرة أيضاً. يشاهد التهاب المهلل والتحوصل والتقرح والتهاب الأوعية اللمفية وتضخم العقد اللمفية على الجلد عند نقطة دخول العامل السبب، ي معدل الوفيات في الحالات السريرية عالٍ

الحدوث في الحيوانات: الرعام هو بشكل أولي، مرض يصيب الحوافر؛ يكون سير المرض مزمناً مسيطراً لدى الخيول، ويكون بشكل دائم تقريباً حاداً لدى الحمير والبغال. الشكل الحاد: يحدث فيه حمى عالية واكتئاب وزلة وإسهال، وفقدان وزن سريع، ويموت الحيوان خلال أسابيع قليلة. الشكل المزمن: قد يستمر سنوات، وبعض الحيوانات تتعافى وبعضها الآخر يموت. يتميز الرعام المزمن بثلاثة أشكال سريرية تحدث بشكل مستقل أو بشكل متواتر: الرعام الرئوي، مرض الطرق التنفسية العلوية، الرعام الجلدي .

يمكن أن يبقى الرعام الرئوي مستتراً (كامناً) لفترات زمنية طويلة. تتألف الأعراض السريرية عند حدوثها من حمى متقطعة وسعال واكتئاب وفقدان الوزن. تحدث زلة مع خراخر في مراحل متقدمة. تتألف الآفات الرئوية من عقيدات أو بؤر رئوية. تكون العقيدات بيضاء سنجابية اللون مع حواف حمراء، وبمرور الوقت يصبح المركز جنبياً أو لينا أو تعاني من تكلس وتصبح مخاطيةً بنسج ليفي حبيبي سنجابي أو أبيض . يتميز مرض الطرق التنفسية العلوية بتقرحات المخاطية (نخر العقيدات هو الآفة الأولية) في أحد أو كلا المنخرين،

وفيما بعد في مخاطية الحنجرة والرغامى. تحوي القرحة مركزاً سنجابي اللون مع حواف ثخينة ومثلثة. يوجد نجيج مخاطي أو مخاطي قيجي من أحد أو كلا المنخرين يشكّل جلبات غامقة حولهما. يبدأ الشكل الجلدي للرعام بعقيدات سطحية أو عميقة. تصبح هذه الأخيرة قرحة ذات مركز سنجابي اللون وتفرغ سائلاً سميكاً زيتياً يغلف الشعر. تشكل الأوعية اللمفية حبالاً مرئية وتتورم العقد اللمفية. يعتبر معظم المؤلفين رعام الطرق التنفسية العلوية والرعام الجلدي أشكالاً ثانوية للرعام الرئوي

Pattern 3

Biovar 5, which occurred in cattle in Great Britain and Germany, has biochemical and serological characteristics similar to *B. melitensis*. This similarity was a source of confusion for years until new methods of species identification (oxidative metabolism and phagocytolysis) established the biovar as *B. abortus*. The other biovars also have a more or less marked geographic distribution. Cattle can also become infected by *B. suis* and *B. melitensis* when they share pasture or facilities with infected pigs, goats, or sheep. The infection in cattle caused by heterologous species of *Brucella* are usually more transient than that caused by *B. abortus*. However, such crossinfections are a serious public health threat, since these brucellae, which are highly pathogenic for man, can pass into cow's milk. Infection caused by *B. suis* is not very common. By contrast, infections caused by *B. melitensis* have been seen in several countries, with a course similar to those caused by *B. abortus*.

In natural infections, it is difficult to measure the incubation period (from time of infection to abortion or premature birth), since it is not possible to determine the moment of infection. Experiments have shown that the incubation period varies considerably and is inversely proportional to fetal development: the more advanced the pregnancy, the shorter the incubation period. If the female is infected orally during the breeding period, the incubation period can last some 200 days, while if she is exposed six months after being bred, incubation time is approximately two months.

The period of "serologic incubation" (from the time of infection to the appearance of antibodies) lasts several weeks to several months. The incubation period varies according to such factors as the virulence and dose of bacteria, the route of infection, and the susceptibility of the animal.

The predominant symptom in pregnant females is abortion or premature or full term birth of dead or weak calves. In general, abortion occurs during the second half of the pregnancy, often with retention of the placenta and resultant metritis, which may cause permanent infertility. It is estimated that the infection causes a 20% to 25% loss in milk production as a result of interrupted lactation due to abortion and delayed conception. Cows artificially inseminated with infected semen may come into estrus repeatedly, as happens in cases of vibriosis or trichomoniasis. Nonpregnant females show no clinical symptoms and, if infected prior to breeding, often do not abort. In bulls, brucellae may become localized in the testicles and adjacent genital glands. When the clinical disease is evident, one or both testicles may become enlarged, with decreased libido and infertility. Sometimes a testicle may atrophy due to

adhesions and fibrosis. Seminal vesiculitis and ampullitis are common. Occasionally, hygromas and arthritis are observed in cattle. Brucellae entering the animal's body multiply first in the regional lymph nodes and are later carried by the lymph and blood to different organs. Some two weeks after experimental infection, bacteremia can be detected and it is possible to isolate the agent from the bloodstream. Brucella organisms are most commonly found in the lymph nodes, uterus, udder, spleen, liver, and, in bulls, the genital organs. Large quantities of erythritol, a carbohydrate that stimulates the multiplication of brucellae, have been found in cow placentas. This could explain the high susceptibility of bovine fetal tissues.

Translation pattern 3

الماشية: الأمراض Pathogen الرئيسي هو البروسيلة المجهضة. الضرب الحيوي عالمي وسيطر بين السبعة التي تحدث في العالم .
يختلف توزيع الضروب الحيوية المختلفة جغرافياً . ففي أمريكا اللاتينية تؤكد وجود الضروب الحيوية 1 و 2 و 3 و 4 و 6. والضرب الحيوي 1 يشكل أكثر من 80% من المستفردات . وفي الولايات المتحدة استفردت الضروب الحيوية 1 و 2 و 4، وفي غرب أفريقيا والصين : يسيطر الضرب الحيوي 3 ويصيب كلاً من الماشية الأهلية والجاموس . (84) يملك الضرب الحيوي 5، والذي يصيب الماشية في بريطانيا العظمى وألمانيا، مميزات كيميائية حيوية وسيروولوجية مشابهة للبروسيلة المالطية . كان هذا التشابه مصدراً للتشويش استمر سنوات حتى وطدت الطرق الحديثة في استعراف الأنواع (الاستقلاب التأكسدي وتخرب البلعمية (الضرب الحيوي كبروسيلة مالطية . للضروب الحيوية لأخرى توزيع جغرافي أكثر وضوحاً أو أقل وضوحاً . قد تصاب الماشية بالعدوى أيضاً من البروسيلة الخنزيرية والبروسيلة المالطية عندما تتشارك في المرعى أو المرافق مع خنازير أو أغنام أو ماعز منعديّة . العدوى في الماشية الناجمة عن نوع غيروي من البروسيلة عابرة أكثر من تلك الناجمة عن البروسيلة المجهضة عادة . وعلى كل : تشكل هذه العدوى المتصالبة 7 ديداً خطيراً للصحة العامة لأن هذه البروسيلات، والتي هي ممرضة للإنسان بشكل كبير، يمكن لها أن تنتقل عبر لبن (حليب البقر .) (العدوى الناجمة عن البروسيلة الخنزيرية ليست شائعة جداً . على العكس : شوهدت العدوى الناجمة عن البروسيلة المالطية في الكثير من البلدان مع مساق مشابه للعدوى الناجمة عن البروسيلة 7 هضة . من الصعب قياس دور الحضانة) من وقت العدوى حتى الإجهاض أو الولادة المبكرة (في العدوى الطبيعية لأنه من غير الممكن تحديد لحظة العدوى . أظهرت التجارب أن دور الحضانة يتغير) يتفاوت (بشكل واضح وإنه يتناسب عكسياً مع نماء الجنين : فكلما تقدم الحمل كلما قصر دور الحضانة . إذا أصيبت الأنثى بالعدوى عن طريق الفم خلال فترة التكاثر يمكن لدور الحضانة أن يدوم 200 يوماً تقريباً؛ في حين إذا تعرضت للعدوى بعد ست أشهر من الولادة فمدة الحضانة شهران تقريباً . يدوم دور الحضانة السيروولوجي) "من وقت العدوى إلى ظهور الأضداد (من عدة أسابيع إلى عدة أشهر . يتفاوت دور الحضانة حسب عوامل مختلفة مثل فوعة وجرعة الجراثيم، طريق العدوى واستعداد الحيوان . العرض المسيطر في الحوامل هو الإجهاض أو الولادة المبكرة أو الولادة بتمام الحمل لعجول ميتة أو ضعيفة . يحدث الإجهاض عامة خلال النصف الثاني من الحمل وغالباً مع احتباس المشيمة وما ينتج عنه من التهاب الرحم، والذي قد يسبب عمقاً مستديماً . وقد قدر أن العدوى تسبب خسارة من 20% إلى 25% في إنتاج اللبن (الحليب) كنتيجة للإرضاع المتقطع الناجم عن الإجهاض والحمل المتأخر . قد يعاني البقر الذي ييمنى صناعياً بمنى منعدي من ودق estrus

بشكل متكرر، كالذي يحدث في حالات داء الضمات أو داء المشعرات .
لا تظهر الإناث غير الحوامل أعراضاً سريرية، وإذا أصيبت بالعدوى قبل الاستيلاء فغالباً لا تجهض. في الثيران: قد تصبح البروسيلات متوضعة في الخصيتين والغدد التناسلية القريبة. وعندما يكون المرض السريري مثبتاً: قد يصبح خصية متضخمة، أو قد تتضخم الخصيتان مع تراجع الشبق والعمق. قد تضمر خصية أحياناً نتيجة الالتصاقات والتليف. التهاب الحويصلة المنوية والتهاب الأمبولة شائعان. وقد تشاهد أحياناً أورام رطبة hygromas أو التهاب المفصل في الماشية. تتكاثر البروسيلات الداخلة إلى جسم الحيوان في العقد اللمفية الناحية أولاً ثم تحمل باللمف والدم إلى الأعضاء المختلفة، وبعد أسبوعين من العدوى التجريبية تقريباً: يمكن كشف تجرثم الدم، ومن الممكن استفراد العامل من مجرى الدم. توجد البروسيلات بشكل شائع في العقد اللمفية والرحم والطحال والكبد والضرع، وفي الأعضاء التناسلية عند الثيران. وجدت كميات كبيرة من الإريثريتول، وهو كربوهيدرات يبنه تكاثر البروسيلات في مشيمة البقرة، وهذا قد يفسر الاستعداد العالي لنسج جنين البقر. وحالما تجهض البقرة المنعدية أو تلد بشكل سوي، لا يبقى الممرض طويلاً في الرحم

Pattern 4

the incubation period is one to three weeks, but may sometimes be several months. The disease is septicemic, with sudden or insidious onset, and is accompanied by continued, intermittent, or irregular fever. The symptomatology of acute brucellosis, like that of many other febrile diseases, includes chills and profuse sweating. Weakness is an almost constant symptom, and any exercise produces pronounced fatigue. Temperature can vary from normal in the morning to 40°C in the afternoon. Sweating characterized by a peculiar odor occurs at night. Common symptoms are insomnia, sexual impotence, constipation, anorexia, headache, arthralgia, and general malaise. The disease has a marked effect on the nervous system, evidenced by irritation, nervousness, and depression. Many patients have enlarged peripheral lymph nodes or splenomegaly and often hepatomegaly, but rarely jaundice. Hepatomegaly or hepatosplenomegaly is particularly frequent in patients infected by *B. melitensis* (Pfischner et al., 1957). *Brucella* organisms localize intracellularly in tissues of the reticuloendothelial system, such as lymph nodes, bone marrow, spleen, and liver. Tissue reaction is granulomatous. The duration of the disease can vary from a few weeks or months to several years. Modern therapy has considerably reduced the disease's duration as well as the incidence of relapses. At times, it produces serious complications, such as encephalitis, meningitis, peripheral neuritis, spondylitis, suppurative arthritis, vegetative endocarditis, orchitis, seminal vesiculitis, and prostatitis. A chronic form of the disease occurs in some patients and may last many years, with or without the presence of localized foci of infection. The symptoms are associated with hypersensitivity. Diagnosis of chronic brucellosis is difficult. Separate mention should be made of human infection caused by the *B. abortus* strain 19 vaccine, which is the vaccine used most often to protect cattle. Cases have been described of accidents among those administering the vaccine (veterinarians and assistants) who have pricked a finger or hand with the syringe needle

or have gotten aerosol in their eyes. If someone has no prior exposure to brucellae and has no antibodies to the agent, the disease sets in abruptly after a period of 8 to 30 days.

The course of the disease is usually shorter and more benign than that caused by the field strains of *B. abortus*, but there are severe cases that require hospitalization.

Translation pattern 4

دور الحضانة من 3-1 أسابيع عادة، ولكن قد يصل إلى عدة أشهر أحياناً. يؤدي المرض إلى إلتان دموي مع بدء مختال أو مفاجئ، ويتوافق مع حمى متقطعة أو مستمرة، أو غير منتظمة؛ تتضمن أعراض داء البروسيلات الحاد، مثل أي مرض حموي آخر، النوافض وchills والتعرق الغزير. الضعف عرض دائم تقريباً، وتؤدي الرياضة (التمرين) إلى تعب واضح. قد تتراوح درجة الحرارة من السواء في الصباح إلى 40° بعد الظهر. يحدث التعرق المتميز برائحة خاصة مساءً. الأعراض الشائعة هي الأرق والعنانة الجنسية والإمساك والقهم والصداع والألم العضلي والتوعك العام. للمرض أثر واضح على الجهاز العصبي، يتجلى بالتهيج والعصبية والاكنتاب. وقد عانى الكثير من المرضى من تضخم العقد اللمفية المحيطية أو تضخم الطحال، وغالباً من ضخامة الكبد، ونادراً من اليرقان. تكثر ضخامة الكبد أو ضخامة الكبد والطحال بشكل خاص عند المرضى المنعدين بالبروسيلة المالطية . (68) تتوضع البروسيلات داخل الخلية في نسج الجملة الشبكية البطانية مثل العقد اللمفية ونقي العظام والطحال والكبد، تفاعل النسيج هو ورمي حبيبي. يمكن لمدة المرض أن تختلف من أسابيع قليلة إلى أشهر إلى عدة سنوات. أنقصت المعالجة الحديثة، وبشكل واضح، مدة المرض إضافة إلى وقوع النكس. قد يسبب المرض، أحياناً، مضاعفات خطيرة مثل التهاب الدماغ والتهاب السحايا والتهاب العصب المحيطي والتهاب الفقار والتهاب المفصل القيحي والتهاب الشغاف التنبتي والتهاب الخصية والتهاب الحويصلة المنوية والتهاب البروستاتة. يحدث شكل مزمن من المرض عند بعض المرضى وقد يدوم سنوات طويلة مع/أو دون وجود بؤر موضوعة من العدوى. تترافق الأعراض مع فرط التحسس .تشخيص داء البروسيلات المزمن صعب. يجب ذكر العدوى البشرية الناجمة عن البروسيلة المجهضة -لقاح الذرية 19، بشكل منفصل، وهو اللقاح المستخدم لتحصين الماشية في معظم الأحيان. وصفت حالات من الحوادث بين أولئك الذين يعطون اللقاح (الأطباء البيطريون والمساعدون) والذين وخزوا إصبعاً أو تعاملوا مع إبرة المحقنة أو دخل الضبوب في عيونهم. إذا لم يكن الشخص قد تعرض في السابق للبروسيلات ولم يتناول مضاداً حيوياً للعامل، فإن المرض يبدأ بشكل حاد بعد 30-8 يوماً. مساق المرض أقصر عادة وأقل خطورة

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III. Summary in Arabic

ملخص المذكرة

المقدمة:

لا يمكن لأحد أن يستطيع إنكار أهمية الترجمة في مساعدة الأشخاص أو مساعدة الأشخاص الذين لا يتكلمون نفس اللغة أو لا ينتمون إلى نفس المجتمع حتى يتم التواصل بصورة ناجحة. تعتبر الترجمة من إحدى أقدم النشاطات التي قام بها الإنسان حيث اكتسبت هذه الميزة لكونها إحدى الوسائل التي تستعمل فينقل المعرفة من خلال الثقافة والحضارة. بتطور التكنولوجيا والعلم في العصر الحديث، نلاحظ الزيادة لمعتبرة في الطلب لأنواع المختلفة في الترجمة. تعتبر الترجمة كأى نظام تنفرع إلى عدة أنواع مختلفة كالترجمة البيطرية والترجمة الطبية والترجمة الأدبية إلى آخره. للترجمة البيطرية مصطلحات خاصة بها. وتعتبر الترجمة البيطرية احد فروع الترجمة العلمية وتتميز بكونها من أصعب أنواع الترجمة على الإطلاق لما لها علاقة بصحة وحياة الحيوانات.

إشكالية البحث:

تسعى هذه الدراسة إلى البحث عن المشاكل والاستراتيجيات والاساليب عندما نترجم علم البيطرة من

الانجليزية إلى العربية.

أهداف الدراسة:

الهدف من هذا البحث هو تسليط الضوء على المشاكل التي تواجه المترجم في محاولته لترجمة تخصص معين من اللغة الإنجليزية إلى اللغة العربية مثل علم البيطرة بالإضافة إلى تسليط الضوء على الاساليب والاستراتيجيات المستعملة في مثل هذا التخصص أي علم البيطرة.

تساؤلات البحث:

تهدف الدراسة للإجابة على التساؤل التالي:

ما هي اكثر المشاكل والصعوبات التي يواجهها المترجم خلال ترجمته لنص العلمي البيطري من اللغة الإنجليزية إلى اللغة العربية؟

ما طبيعة الاساليب والاستراتيجيات المستعملة في النص العلمي البيطري؟

إلى أي مدى يجد النص البيطري مكافئاً في اللغة العربية؟

الفرضيات:

للإجابة على التساؤلات المطروحة تم اقتراح الفرضيات التالية:

عدم وجود مكافئ للنص الإنجليزي البيطري في اللغة العربية يدفع بالمترجمين إلى إتباع واتخاذ الاساليب واستراتيجيات مختلفة من أجل الحصول على ترجمة جيدة.

خطة البحث:

تم تقسيم هذه الدراسة إلى جزئين، النظري والتطبيقي. ينقسم الجزء الأول إلى ثلاثة فصول.

في الفصل الأول تم تسليط الضوء على الجوانب الأساسية للترجمة المتخصصة وعلم البيطرة. أما في

الفصل الثاني تم تسليط الضوء على ترجمة علم البيطرة والاساليب والاستراتيجيات المتوقع استعمالها

واستخدامها في ترجمة علم البيطرة.

أما الفصل الثالث تمحور حول المشاكل المتوقع موجهتها خلال ترجمة علم البيطرة.

الفصل النظري:

بداية بأنماط للنصوص حيث انه من الواضح ان النصوص ليس لها نفس النوع والأسلوب وتختلف من نص الى آخر من خلال اي علم فمثلا نص في علم البيطرة ليس كنص سياسي او ادبي . وكما يختلف النص تختلف الترجمة حسب العلم المتعامل معه. فالترجمة المتخصصة تتعامل مع النصوص العلمية المتخصصة وتعتمد على مصطلحات ذات التخصص . تهدف هذه الترجمة الى نقل المعلومات من اللغة الاصل الى اللغة الهدف. واثناء ترجمة مثل هذه النصوص العلمية يواجه المترجم عدة صعوبات ومشاكل لها علاقة بإيجاد مكافئ لغوي دقيق في اللغة الهدف.

تعتبر الترجمة البيطرية احد فروع الترجمة العلمية وتتميز بكونها من بين اصعب انواع الترجمات، لذا يلجا المترجم البيطري الى تحقيق التكافؤ في الترجمة من خلال استعمال عدة طرق واستراتيجيات من بينها الترجمة الحرفية والنحل والتكيف والتعريب وطبعا الترجمة بالحذف والترجمة بالزيادة.....الخ.

يواجه المترجم البيطري عدة مشاكل اثناء ترجمته لنصوص البيطرية من بين ابرز هذه المشاكل

اولا: المشاكل النحوية كاستعمال الجمل الاسمية و الجمل الفعلية فاللغة العربية تحتوي نوعين من الجمل (الجملة الاسمية والفعلية) اما اللغة الانجليزية تحتوي على الجمل الفعلية فقط

ثانيا: المشاكل المعجمية

ثالثا: المشاكل الاسلوبية كاستعمال اسلوب المبني للمعلوم والمبني للمجهول وكذا استعمال الاسلوب الاكاديمي والغير اكايمي، لذ يلجا المترجم الى طرق واستراتيجيات السابق ذكرها لحل هذه المشاكل.

الفصل الثاني:

المنهجية:

نظرا للطبيعة موضوع دراسة مشاكل والاساليب والاستراتيجيات البيطرية من اللغة الانجليزية إلى اللغة العربية تم اعتماد منهجين منهج وصفي ومنهج مقارنة للنائج هذه الدراسة .

عينة البحث في النسخة الانجليزية تتكون من 395 صفحة أما النسخة العربية تحتوي على 569 صفحة، هذه العينة كتبت من طرف بيدرن انشا و بوريس تسيفيرس في عام 2003, هذه العينة كانت الطبعة الثالثة، النسخة الانجليزية طبعة من طرف المنظمة العالمية للصحة الإقليم الأميركي في عام 2003 ، أما النسخة العربية كانت من طرف المنظمة العالمية للصحة بإقليم الشرق الأوسط.

استعملت هذه العينة كمدونة بحث لهذه الدراسة لتحقيق من المشاكل والاساليب والاستراتيجيات المستعملة في علم البيطرة من اللغة الانجليزية إلى اللغة العربية .

أظهرت نتائج التحليل أن المترجم خلال ترجمته لعلم البيطرة استعمل الترجمة الحرفية والنحل والتكيف.... للحصول على ترجمة جيدة.

الخاتمة :

تعتبر الترجمة البيطرية من أصعب أنواع الترجمة، الترجمة البيطرية دقيقة لا أنها في العالم العربي تعاني من مشكل عدم وجود مكافئ في اللغة الهدف، والذي يشكل اكبر عقبة و عائق في عمل المترجمين ولأجل حل هاته المشاكل يتطرق المترجمون إلى وجود مكافئ عربي دقيق لها، من خلال استعمال الاساليب واستراتيجيات للإنتاج ترجمة بيطرية صحيحة وجيدة

English- Arabic Glossary

عربي-إنجليزي مسرد

The bilingual glossaries below comprises mainly all terms related to veterinary medicine terminology translation, which are relevant to this dissertation.

ST	TT
Septicemie	تعفن دموي
splenomegaly	تضخم الطحال
Syndrome	متلازمة
symptom	اعراض إكلينيكية للمرض
Epidemic outbreak	تفشي او بنة
Tuberculose	السل
Trypanosomiasis	مرض الدباب
Infection diseases	امراض معدية
Protozoal diseases	امراض طفيلية
brucellosis	مرض الاجهاض المعدي