Lexical Gap in Human Translations vs. Machine Translation Systems (MTSs): Focusing on Some Verses in the Holy Qur'an

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Abstract

Linguistic and semantic differences are some of the main problems of translating the Holy Qur'an into English. The present study highlights the problem of lexical gap and examines a number of terms- totally 117 in 110 verses- of the Holy Qur'an, including the referential meaning of 'sin' and their English translations. The researcher aimed to find the strategies applied by three translators and three machine translation systems (MSTs) and to compare them. In this regard, five frequent and common terms – 'ذنب', 'سیئه', 'جناح', 'اثم', and 'وزر'-were selected. The strategies proposed by Mollanazar (2009) were employed to fill the gap. To do so, the English translations produced by three machine translation systems (MTSs), namely Google Translate, SDL Free Translation and Systranet were compared with three human translation by M.H. Shakir, A.Qaraei and T.B.Irving. The results revealed that in most verses, almost in six English translations, a generic term was used without any additional information to make the sense clearer. There was no noticeable difference between human and machine translations in applying the proposed strategies to fill the gap and make the English version more meaningful in terms of these apparently similar but contextually different terms. Thus, it seems that these differences were not focused on, while rendering these given verses to English.

Keywords: Generic Term; Lexical Gap; Machine Translation; Translation Strategies

1. Introduction

The advent of computers and developments of new technologies in translation field were accompanied by merits and demerits which some translators may experience in translation field. Despite shortcomings such as providing improper equivalents and inaccuracy, Machine Translations may meet the needs of the modern demanding world. In Quah's (2006) opinion, "speedy access to information, in whatever language, is important in the modern world, and in this context machine translation can facilitate information search and retrieval (p.90). This research did not mean to accept or oppose machine translation systems (MTSs) totally. The goal was to compare the outputs generated by MTSs and those created by human translators. To do so, the Holy Qur'an was selected given its specific challenges of its translation to other languages. There are senses in the Holy Qur'an that are specific to its own language and those who attempt to transfer the senses behind these specific words may come to an improper end. One of the problems for Qur'an translators is the inability to keep its qualities in the TL.

Upon analyzing the English translation of verses selected for this research, one can observe that the performance of the three MTs was adequate on the whole, though Systran System outperformed the two others in translating some terms. We can find equivalents for all these selected terms and almost a few mistakes are observed, but SDL free and Google Translate could not replace the given terms with correct equivalents in some cases; there are mistranslations in a considerable number of verses.

Google Translate uses Neural Network to search through a database of texts and analyze them and suggest the most likely output. Wu et al. (2016) assert that Google Translate System and SDL Free Translation have drawn on neural approach to machine translation. It was in 2016 that Google declared its own switch to a neural machine translation engine –Google Neural Machine Translation – translating whole sentences instead of piece by piece (in Vaezian and Pakdaman, 2018). SDL Free translation is now based on neural approach – it was previously based on statistical approach to machine translation (in Vaezian and Pakdaman, 2018). SYSTRAN's products combine traditional rule-based technology and statistic translation technology that produce high quality and accurate translations. The present research aimed to compare the performance of these three MTSs with regard to contextual translation of words/concepts of the Holy Qur'an, which are not present in English, into English. The translations were compared to those made by human translators.

Arabic and, in particular, Qur'anic Arabic is in many ways different from a remote language like English. The richness in meaning, several words with approximate but not identical meaning, and one word with more than one

meaning in the Holy Qur'an have made the task of translation very difficult in some languages that are remote from Arabic. These differences give rise to some problems in natural language processing especially in machine translation. There are many works done on different respects of the Holy Qur'an. But this article is among the limited works to consider translation of 'lexical gap' based on Arabic to English machine translation and compare the strategies applied to fill the gap by human and machine translations.

Quah (2006) reported that for many years there have been attempts to design a machine translation system which can translate automatically without the intervention of human. Nonetheless, Hillel (1960/2003) stated that to have a fully automatic high quality MST was not indeed attainable (in Quah, 2006). Some like Sager (1994) believed that the term "machine translation" is misleading enough since one may imagine no place for human involvement (in Quah, 2006). Quah (2006) continues to say that today the aim is to get an automatic translation but necessarily there is no need to generate a high quality output. It is acceptable if it is fit-for-purpose.

A.1.Research Question

The present study was motivated by two questions in this regard.
1. *Did translators, human and* MTSs, *succeed to find the differences among the five concepts in the SL and what were the strategies applied by them?*
2.   *Is there any difference between human and machine translations to fill the gap?*

2. Literature review

According to Afrouz and Mollanazar (2017), "as is conceded by many translation scholars, culture can pose the thorniest problems in translation. Some other translation theorists stress that this problem becomes particularly complicated when dealing with religious concepts and terms"(p.92). Larson (1984) and Bassnett (1994) hold the view that those concepts which refer to cultural-religious items of a particular language are the most challenging ones for translators in terms of analyzing the structure and lexicon of the ST and replacing them with proper equivalents in the TT. Readers' awareness of the 'diverse aspect of meaning involved' can justify the problem. When translating the Holy Qur'an, translators may probably, touch upon challenges for conveying meaning more than ever (Afrouz and Mollanazar, 2017).

Nasr (1979, p.44) explained that "to be a good translator of the sacred text of Muslims, however, it is imperative to know Arabic well as well as to know well the minute differences, linguistic and semantic between Arabic and the target

language" (in Pirnajmuddin and Zamani, 2014, p.126). Sankaravelayuthan (2019) stressed that lexical gap, also called lexical lacunae, occurs when the use of a particular word as a hypernym, incorporating its denotations, is absent for the same word in another language. For example in Arabic, we face more than one word carrying the meaning of 'camel' in denotation; such as ' ,'بعير' ,'عشار' ,'ابل, 'هيم , ,'جمل' ,'ناقه'', etc. while in Persian as well as in English, there is not seen such a variety of words with the same referential meaning.

When translating language-specific and culture-bound words/phrases, translators may face some concepts or words/ phrases representing those concepts in the SL which have zero equivalent in the TL. In this case, they may experience challenges to translate them and the meanings are not fully conveyed. This phenomenon is called 'lexical gap' or 'semantic void' (Mollanazar, 2009). He points out that two types of lexical gap are possible:

> -One generic word/concept in TL is considered for different types of a specific word or different aspects of a concept of SL

> -In the TL, a specific concept is absent (Mollanazar, 2009).

Many works have been done on the translation of the Holy Qur'an to different languages and various subjects have been in focus. But there were limited studies on investigating the strategies applied by MTSs and human translators for translation of those terms/concepts of the holy Qur'an with zero equivalents in another language.

Ping (2005), in his dissertation entitled 'Lexical Gaps in Translation' (from Chinese to English) redefined the lexical gap of its connotation within the theoretical frame of translation equivalence and subdivided lexical gap into two types; "quasi-lexical-gap", where the value of equivalence approximates zero; and "semi-lexical-gap", where the equivalence is only partial. Then, he investigated some methods to fill up such gaps including '*calque, approximate translation, transcription and neologism'*. These methods may vary according to the context and types of lexical gaps.

F.al-Ghazalli (n.d) studied how lexical gaps constitute a thorny area for Arabic- to -English translators to encounter and to overcome. The research was based on the hypothesis that lexical gaps in religious translation seem to be rather problematic to get around. Translation data for analysis is taken from three published renditions of the Glorious Qurân where ayahs involving morpho-lexical and semantico-lexical gaps have been discussed along with alternative translations for the inadequately translated ayahs. Then he concluded that '*explanation, loan-translation and transliteration'* are the only resort for translators to get around the problem of lexical gaps.

Santos (n.d) in an article entitled 'Lexical Gaps and idioms in Machine Translation' describes the treatment of lexical gaps, collocation information and idioms in the English to Portuguese MTS PORTUGA.'Lexical transfer' the process of choosing the correct equivalent for one lexical entry in another language was one of the most challenging problems that MT has to manage.

Theoretical framework

Mollanazar (2009) introduced some ways to fill the gap:

a) Descriptive equivalents: the translator applies one generic word or phrase and tries to add description relevant to the particular context in which the given word /concept is used.

b) Cultural substitution: the translator replaces the SL word/concept with the similar equivalent in the TL. E.g. Arabic word 'خمر' [*khemr*] may be translated as '**veil**'.

c) Loan translation: this method is in fact 'literal' or 'word for word' translation of common collocations and components of compounds. For example, the term 'وزر' may be translated as 'the *burden of sin'.* The components of the Arabic word 'وزر' expand over a number of different words. It follows analytical process in translation.

d) Lexical creation (coining) in case that exports feel the need for one word in the TL, they may create a new word which would be meaningful and natural I the target language. For example the word "Netizen" in English reminds hearers of 'Citizen'. Thus, the researcher suggests 'نت وند' as a new word based on 'شهروند' (translation the researcher).

e) Borrowing, as the name shows, the translator borrows one word or concept from the SL and use it in the TL. This word may be quiet new and unfamiliar or it may seem partly familiar for the TL. E.g., 'جلباب' may be borrowed from Arabic and in some of English translations we find '***jilbab'***.

3. Methodology

3.1. Corpus

The dataset of this study was limited to the TT equivalent terms used for five distinct ST terms meaning "ذنب" i.e. 'سیئه' , 'وزر' , 'اثم' , 'ذنب' , and 'جناح'. 110 verses and 117 terms were extracted from three MTSs, namely Google Translate, SDL Free Translation and Systranet and three human translations by M.H.Shakir, A.Qaraei, and T.B.Irving. The selected English human translations of the Holy

Qur'an were done by three Muslim translators, so it would be expected that they are familiar with Islamic concepts and words and can reflect the difference among these five selected terms in English almost perfectly. The MTSs selected are common and among the most popular ones. It is noteworthy that, in some verses, more than one of the terms in question have been applied.

3.2. Procedure

All six target texts were compared against the source text to find out their solutions to fill the gap. Then, the degree of difference of human translations was measured toward machine translations in terms of discerning semantic components of the five given terms and the ability to apply proper methods to preserve the meaning of those terms/concepts of the Holy Qur'an.

4. Data Analysis

The researcher started from the beginning of the Holy Qur'an looking for the verses containing different Qura'nic terms with the referential meaning of 'sin'. Almost about 350 verses were found containing one or more relevant terms. For the present research, however, the researcher just took into account five terms, most common of the others, with the meaning of 'sin'. These terms are ' ذنب, سیئه' and 'جناح, اثم, وزر'. There are about 30 different terms in the Qur'an with the meaning of 'sin' but the frequency of those ones are not as high as the terms selected for this study and known for non-native readers with the meaning of 'sin'. Besides these five terms, other less familiar ones exist like 'سرف, لمم', and 'عوج', etc.

   Some of the examples with their English translations are mentioned here. All English translations were extracted from Noor Jami al-Tafasir 2.5 Software (2014).

Sample 1

1.يَسْئَلُونَكَ عَنِ الْخَمْرِ وَ الْمَيْسِرِ قُلْ فيهِما إِثْمٌ كَبيرٌ وَ مَنافِعُ لِلنَّاسِ وَ إِثْمُهُما أَكْبَرُ مِنْ نَفْعِهِما وَ يَسْئَلُونَكَ ما ذا يُنْفِقُونَ قُلِ الْعَفْوَ كَذلِكَ يُبَيِّنُ اللَّهُ لَكُمُ الْآياتِ لَعَلَّكُمْ تَتَفَكَّرُونَ (بقره219)

-They ask you concerning wine and gambling. Say," There is a great sin in both of them, and some profits for the people, but their sinfulness outweighs their profit." And they ask you as to what they should spend. Say," All that is surplus." Thus does Allah clarify His signs for you so that you may reflect (Qaraei)

-They will ask you about liquor and gambling. SAY: In each of them there lies serious vice as well as some benefits for mankind. Yet their vice is greater than

their usefulness." They may ask you what to spend. SAY:" As much as you can spare!" Thus God explains His signs to you so that you may meditate (Irving)

-They ask you about intoxicants and games of chance Say: In both of them, there is a great sin and means of profit for men, and their sin is greater than their profit and they ask you as to what they should spend. Say: What you can spare Thus does Allah make clear to you the communications, that you may ponder (Shakir)

- They ask you about wine and gambling. Say, "There is a great sin, and there are benefits for people, and their sin is greater than their benefit." And they ask you about what they spend. Say, "Pardon." Thus Allah makes clear the revelations to you, so that you may reflect (Systran)

-They ask you about alcohol and the facilitator. They say there is a great sin and benefits for people and their sin is greater than their benefit, and they ask you what they spend. Say forgiveness as well. God shows you the verses so that you may think (SDL Free)

-Asilonc for alcohol and gambling say them is a great sin and benefits to people and Atmanma greater than benefit them, and what a Asilonc spend less Amnesty also shows you the verses of God, that ye may Taatvkron (Google Translate)

Comment: "اثم" is a sin that seeks cruelty and deprivation of other blessings. It brings, and destroys the happiness of life in other ways . Drinking wine " شرب خمر" is an example of ' اثم.

Sample 2

2. لَیْسَ عَلَیْکُمْ جُناحٌ أَنْ تَدْخُلُوا بُیُوتاً غَیْرَ مَسْکُونَةٍ فِیها مَتاعٌ لَکُمْ وَ اللَّهُ یَعْلَمُ ما تُبْدُونَ وَ ما تَکْتُمُونَ (نور29)

-There is no sin upon you in seeking your Lord's grace [during the hajj season]. Then when you stream out of" Arafat remember Allah at the Holy Mash'ar, and remember Him as He has guided you, and earlier you were indeed among the astray. (Qaraei)

-It will not be held against you, however, for entering any houses which are not inhabited, for some property belonging to you. God knows anything you show and anything you hide. (Irving)

-There is no blame on them in respect of their fathers, nor their brothers, nor their brothers' sons, nor their sisters' sons, nor their own women, nor of what their right

hands possess And be careful of(your duty to)Allah Surely Allah is a witness of all things.(Shakir)

- There is no blame on you seek bounty from your Lord. When you have dispersed from Arafat, remember Allah at the Sacred Landmark. And remember Him as He (Systran)

- You have no wing to seek the reward of your Lord, and if you lead from Arafat, remember God at the forbidden poetry and remember him as he guided you, and if you were before him for those who stray (SDL Free Translation)

-You do not have suite that you may seek as well as from your Lord. If Ovdtm Arafat God, remember when the Sacred Monument and Azkroh as guided, and if you are accepted by those gone astray (Google Transalte)

Comment: "جناح" basically means the desire for something or something. "جناح" is basically a gerund or infinitive meaning deviation from justice and perseverance (Mustafavi, 1981, vol. 2: 117). It signifies "inclination to one side" and because sin diverts man from the right, it is also called "جناح". Therefore, it signifies a perversion or deviation from the truth. The word "جناح" has been mentioned 25 times in the Holy Quran and it is almost synonymous with exclusion, responsibility and sin (Qurashi, 1988, vol. 2:56) "جناح" also refers to a sin or a crime that deserves punishment (in Jalilian & Hosseini, 2015).

Sample 3

3. بِأَيِّ ذَنْبٍ قُتِلَتْ (تكوير9)

-For what offence she has been killed.(Irving)

-For what sin she was killed.(Qaraei)

-For what sin she was killed. (Shakir)

- What guilt killed (Systran)

- By What Guilt You Killed (SDL Free)

- For what sin was she killed (Google Translate)

Comment: "ذنب" refers to anything that entails bad results; it means committing sins against God, it also includes prostitution and oppression (in Jalilian & Hosseini, 2015).

Sample 4

4.   بَلى مَنْ كَسَبَ سَيِّئَةً وَ أَحاطَتْ بِهِ خَطيئَتُهُ فَأُولئِكَ أَصْحابُ النَّارِ هُمْ فيها خالِدُونَ (بقره81)

-Rather anyone who commits evil will find his mistake will hem him in; those will become inmates of the Fire; they will remain in it for ever.(Irving)

-Certainly whoever commits misdeeds and is besieged by his iniquity such shall be the inmates of the Fire, and they shall remain in it[forever].(Qaraei)

- Yea! whoever earns evil and his sins beset him on every side, these are the Inmates of the Fire In it, they shall abide (Shakir)

- Indeed, who has gained badness and been surrounded by his own sin, these are the inhabitants of the Fire, wherein they will dwell forever (Systran)

- Yes, who has gained badly and has been surrounded by his sin, those who have set fire to it are immortal (SDL Free)

- Yes, whoever earns badly and his sin surrounds him, then those are the companions of the Fire, they will abide therein (Google Translate)

Comment: "سيئه" means sin, bad and indecent. It signifies the bad intercession and the descriptive effects of sins, such as the darkening of hearts, being disgraced, the occurrence of torment, and so on. It also means hardship and bad events that happen to humans. (In Jalilian & Hosseini, 2015)

Sample 5

5.   أَلاَّ تَزِرُ وازِرَةٌ وِزْرَ أُخْرى (نجم38)

-" That no burdened soul shall bear another's burden.(Irving)

- that no bearer shall bear another's burden (Qaraei)

- That no bearer of burden shall bear the burden of another (Shakir)

- No Minister or Minister of (Systran)

-- Don't visit another button (SDL Free Translation)

- Should not one woman bear the burden of another (Google Translate)

Comment: "وزر" is used to mean sin, it basically signifies a heavy burden on the sinner. The heavy burden of sin hard to bear by the sinner. The main difference between the words "اثم" ,"جناح" ,"سیئه" ,"ذنب" is that "اثم" is usually referred to as intentional and voluntary sin while "جناح" ,"سیئه", and "ذنب" have a broad meaning that includes both intentional and unintentional sin (Shariatmadari, 1372, vol. 1:32, Al-mizan, Vol.2, p.289) (in Jalilian & Hosseini, 2015).

To answer the questions, the frequency of machine strategies versus human ones was calculated. Then, the results were analyzed to answer the second and the third research questions. The results of each translation were listed in separate tables and then human translations were compared with those of machine translation systems.

The translators and MTSs' strategies to fill the lexical gap have been presented in the following tables.

Table 1

Frequency of equivalents for five terms by Qaraei

Word (Frequency)	Equivalent		Frequency
اثم **(23)**	Sin		23
جناح **(25)**	Sin		24
	Blame		1
ذنب **(25)**	Sin		24
	Wrong Equivalent	Charge	1
وزر **(5)**	Unacceptable Equivalent	Burden	5
سیئه	Evil (thing, deed)		13

(39)	Misdeed	17
	Something ill	6
	Vice (vicious, viciously)	3
	Sum Total	117

Table 2

Frequency of equivalents for five terms by Irving

Word (Frequency)	Equivalent		Frequency
اثم	Sin		9
(23)	Offence		6
	Vice		8
جناح	Blame		4
(25)	Objection		5
	Wrong Equivalent	Be held against	15
		Be responsible	1
ذنب	Offence		18
(25)	Sin		6
	Wrong Equivalent	Charge against	1
وزر	Unacceptable Equivalent	Burden	5
(5)			
سیئه	Evil (deeds)		34

(39)	Commit evil	
	(something) Bad	2
	Misdeed	1
	Wrong Equivalent Injury	2
	Sum Total	**117**

Table 3

Frequency of equivalents for five terms by Shakir

Word (Frequency)	Equivalent	Frequency
اثم	Blame	3
(23)	Sin	16
	Unlawfulness	1
	Wrong	2
	Omission	1
جناح	Blame	21
(25)	Sin	4
ذنب	Fault	21
(25)	Sin	3
	Crime	1
وزر	Unacceptable Burden	5
(5)	Equivalent	

سیئه	Evil (consequences, deeds)		35
(39)	Sin		1
	Wrong Equivalent	Misfortune	2
	Omission		1
Sum Total			**117**

Table 4

Frequency of equivalents for five terms by Google Translate

Word (Frequency)	Equivalent		Frequency
اثم	Sin		19
(23)	Omission		4
جناح	Blame		2
(25)	Sin		1
	Wrong Equivalent	Have not suite	1
		Stand	16
		Wing	3
	Omission		2
ذنب	Sin		23
(25)	Omission		2
وزر	Unacceptable	Burden	4

(5)	Equivalent	
	Omission	1
سیئه	Bad deed	13
(39)	Evil (thing)	16
	Sin	8
	Omission	2
	Sum total	117

Table 5

Frequency of equivalents for five terms by Systran

Word	**Equivalent**		**Frequency**
اثم	Sin		18
(23)	Guilty		1
	Wrong equivalent	Harm	1
	Omission		3
جناح	Blame		19
(25)	Error		1
	Wrong Equivalent	(Be not to be)	1
	Omission		4
ذنب	Sin		18

(25)		Guilt	5
		Omission	2
وزر (5)	Unacceptable equivalent	Burden	4
	Wrong equivalent	Minister	1
سيئه (39)		Bad deed	11
		Evil (thing, deed)	14
		Sin	8
		Misdeed	4
	Wrong equivalent	Misfortune	1
		Omission	1
	Sum total		117

Table 6

Frequency of equivalents for five terms by SDL Free Translation system

Word	Equivalent		Frequency
اثم (23)		Sin	20
		Omission	3
جناح (25)	Wrong Equivalent	Wing	14
		Have no right	6
		Not have to	2
		Omission	3

ذنب		Sin	21
(25)		Guilt	4
وزر	Wrong equivalent	Button	5
(5)			
سيئه		Bad deed	25
(39)		Evil (thing, deed)	1
		Sin	8
	Wrong equivalent	Disadvantage	3
		Omission	2
	Sum total		117

Table 7

Frequency of equivalents for five terms in MTSs

Translation	Word	Sin	Error	Blame	Guilty	Bad (thing, deed)	Evil (thing, deed)				Have right				Stand	Wing		Disadvantage		Omission
Google Translation	اثم	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
	ذنب	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
	جناح	1	-	2	-	-	-	-	1	-	-	-	-	-	-	16	3	-	-	-	2
	وزر	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	1
	سيئه	8	-	-	-	13	16	-	-	-	-	-	-	-	-	-	-	-	-	-	2
SDL Free Translation	اثم	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
	ذنب	21	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	جناح	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	14	-	-	2	3
	وزر	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	سيئه	8	-	-	-	25	-	-	-	-	-	-	-	-	-	-	-	-	3	-	2
Systran Machine Translation System	اثم	18	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	3
	ذنب	18	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
	جناح	-	1	19	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	4
	وزر	-	-	-	-	-	-	-	-	4	-	-	1	-	-	-	-	-	-	-	-
	سيئه	8	-	-	-	11	14	4	-	-	-	-	-	-	-	-	-	1	-	-	1
Total Frequency		144	1	21	10	49	31	4	1	8	1	6	1	5	1	16	17	1	3	2	29

Sum Total	351

Table 8

Frequency of Equivalents for Five Terms in Human Translations

Translation	Word	Sin	Blame	Bad (thing, deed)	Fault	Evil (thing, deed)	Vice	Offence	Unlawfulness	Responsible for	Beheld against	Objection	Misfortune	Omission
Irving's Translation	اثم	9	-	-	-	-	8	6	-	-	-	-	-	-
	ذنب	6	-	-	-	-	18	-	-	1	-	-	-	-
	جناح	-	4	-	-	-	-	-	-	1	15	5	-	-
	وزر	-	-	-	-	-	-	-	-	-	-	5	-	-
	سيئه	-	-	2	-	34	1	-	-	-	-	-	2	-
Shakir's Translation	اثم	16	3	-	-	-	-	1	2	-	-	-	-	1
	ذنب	3	-	1	-	21	-	-	-	-	-	-	-	-
	جناح	4	21	-	-	-	-	-	-	-	-	-	-	-
	وزر	-	-	-	-	-	-	-	-	-	-	5	-	-

	سینه	1	-		-	-	35	-	-	-	-	-	-	-	-	-	-	-	2		1
Qaraei's Translation	اثم	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	ذنب	24	-		-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
	جناح	24	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	وزر	-	-		-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-
	سیئه	-	-		-	-	13	6	17	3	-	-	-	-	-	-	-	-	-	-	-
Total Frequency		110	29	1	2	21	82	6	18	11	24	1	2	1	2	15	15	5	2	2	2
Sum Total		351																			

Figure 1

Frequency Percentage of the equivalents Applied by Machine Translation Systems
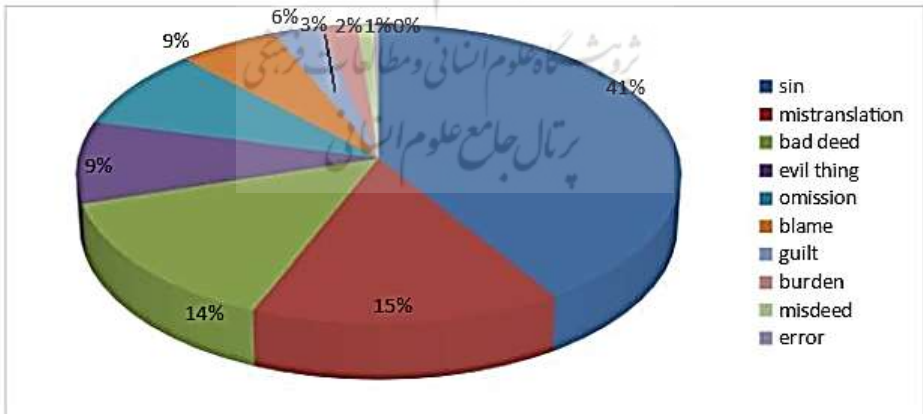
Figure2

Frequency Percentage of the equivalents Applied by Translators
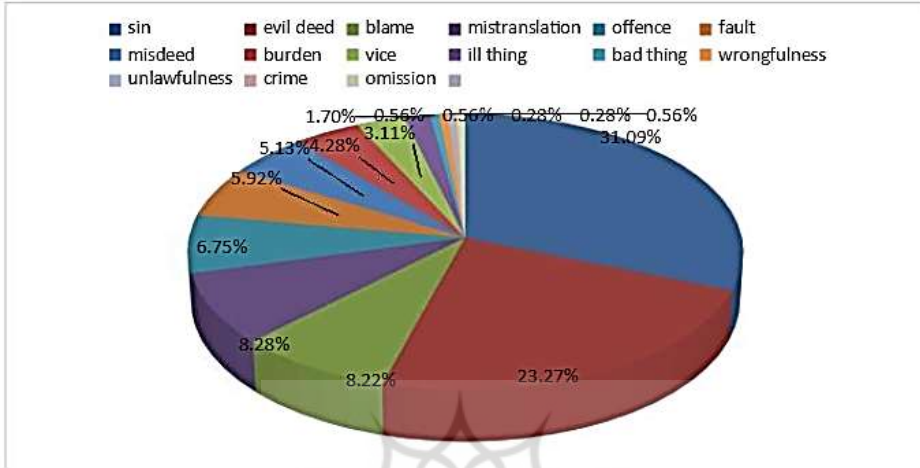
Figure 3

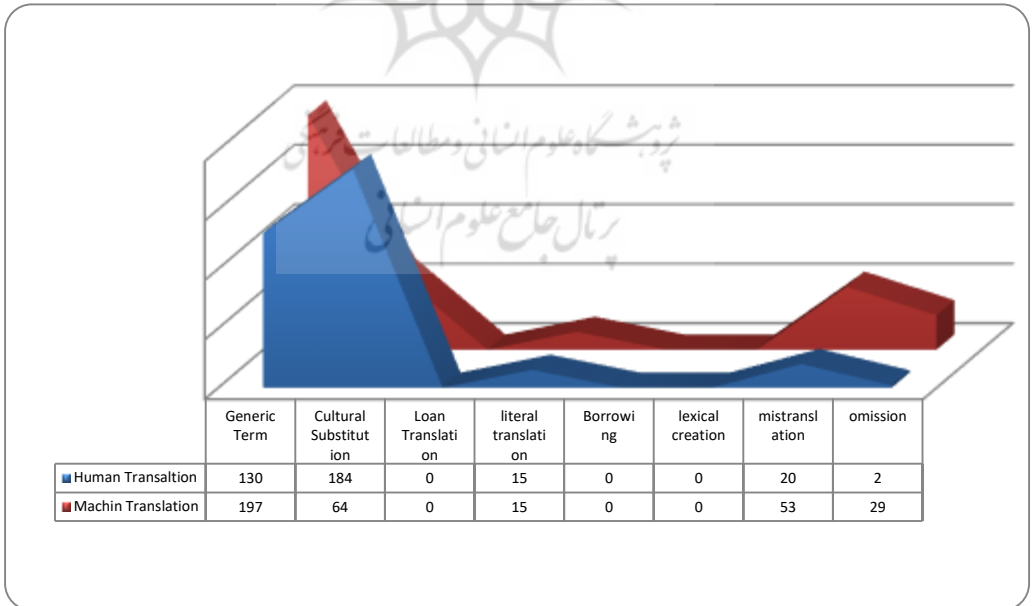*Frequency of the Strategies Applied by Human Translations and Machine Translation*

	Generic Term	Cultural Substitution	Loan Translation	literal translation	Borrowing	lexical creation	mistranslation	omission
Human Transaltion	130	184	0	15	0	0	20	2
Machin Translation	197	64	0	15	0	0	53	29

Figure 4

Frequency Percentage of the Strategies Applied by Human Translations and MTSs
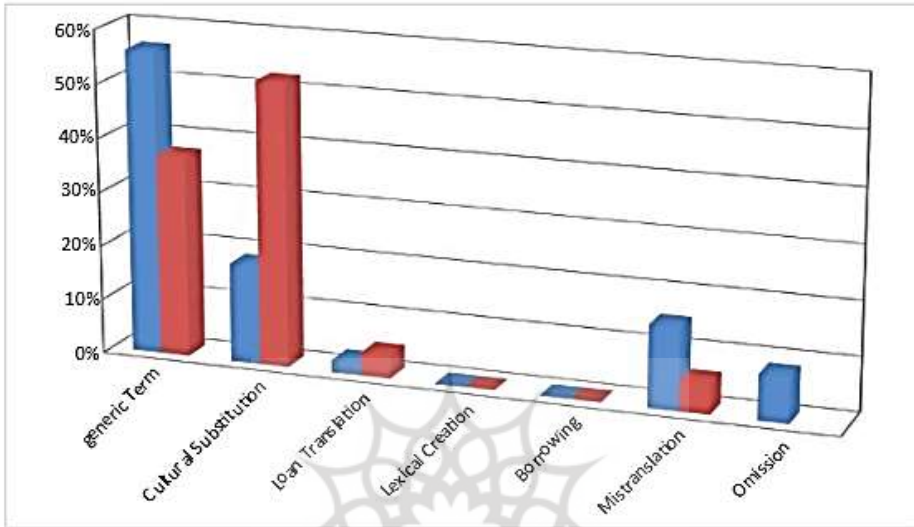
5. Discussion

Based on the above tables displaying the sum total of 117 terms with the referential meaning of 'sin' in English in Machine Translation Systems and human translations, the following results regarding the most and the least frequent strategies can be extracted.

The results of the study showed that about 144 cases of the terms –sum total of three MTSs- were replaced just by 'sin' (a generic term), accounting for the highest frequency. The next high frequencies belonged to 'bad (thing)' (49 cases) and 'evil (deed)' (31 cases), and misdeed (4 cases), respectively. These all are also generic terms, without additional information to describe the terms in English. Therefore, instead of *descriptive translation*, the researcher used '*generic term*'. The frequency of other strategies is as follows:

Cultural translation was applied in 64 cases of the results. For example, for some of these terms, in some verses, in both human and machine translations, terms 'offence', 'guilt', 'blame', 'crime', and 'fault' are found without considering the connotative meaning fit for the given context. As far as the term 'جناح' is concerned, both Google Translate and SDL Free systems had noticeable errors, proposing puzzling terms for it. Out of three Machine Translation Systems in question, Systran System worked better for this term. Incorrect equivalents are

partly attributed to the inadequate knowledge of Machine Translation Systems about the differences between the two words 'جَناح' (wing) and 'جُناح' (sin) in Arabic. The existence of two words with different pronunciation and the same spelling in the SL leads to the incorrect choice.

Lexical creation was employed in no cases and the frequency of *borrowing* and *loan translation* was zero. 29 verses had no equivalent for these terms while a total of 53 cases were mistranslated. In comparison to human translations, the researcher found more incorrect equivalents in machine translations. Literal translation strategy was used just for the term 'وزر' and for 8 cases. Of course, this equivalent is not acceptable because all components of the term were not rendered.

As for the equivalents in human translation, cultural translation had the highest frequency (i.e. 184 cases). In these cases, the given Qur'anic terms were translated by 'fault', 'blame', 'crime', 'vice', 'offence', 'unlawfulness', and 'wrongfulness'. From among these equivalents suggested by three translators, the word 'blame' had the highest frequency (29) and other ones were used just in a few cases. In 110 cases of English translations, the generic terms of 'evil (deed)' (82),'misdeed' (18), '(something) ill' (6) and 'bad' (1) were utilized again without any descriptive information to complete the meaning. In fact, each one of these equivalents referred to a type of 'sin' in a particular situation. In Machine Translation Systems, repeated terms were mostly selected as equivalents for five different terms throughout all English versions, while in human translation, a variety of equivalents was observed. However, the strategies adopted by human translators were found to be similar to those by Machine Translation Systems. The strategies were not precisely compatible with the strategies proposed by Mollanazr (2009).

Results of the study further revealed that due to selecting almost acceptable equivalents, the Sysrtan System outperformed other online systems on the whole with a lower frequency of wrong equivalents. In response to the first question, it may be said that human translators did not regard the differences among these apparently similar terms, because they mostly utilized 'generic terms'. By comparison, Machine translation systems couldn't figure out the differences either. As for the frequency of different strategies which were proposed by Mollanazar (2009) to fill the present gap, three strategies including *generic term, cultural substitution and literal translation* were extracted after examining the examples. As far as the second question is concerned, no considerable difference was found between human translations and machine translation systems. The results indicated that in both translations, generally, just generic content was rendered.

6. Conclusion

Examining the six English translation of these 117 verses of the Holy Qur'an containing the referential meaning of 'sin' revealed that translators-human and machine-did not pay any particular attention, in translating, to find the distinguishable differences among these terms. No lexical gap was detected in translating, and these Arabic terms were treated the same way in terms of connotative meaning and there was not observed any attempt to use an appropriate method to reflect these various terms throughout the whole translation.

It is evident that linguistic and semantic awareness of translators is crucial for working in all texts particularly the Holy Qur'an which enjoys unique language and concepts. It should be pointed out that while translations by Machine Translation Systems like those investigated in the present research can provide help for non-natives of the Holy Qur'an in English to get the general meaning. Of course, this usefulness did not prove true for all examples, so they have to be used with care.   For the time of this research, the need to post editing of translations by MTSs still demands a high attention.

It is hoped that this research result in selecting precise strategies and the use of better strategies to translate the words/ concepts which are absent in some languages.

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