An-Najah National University

Faculty of Graduate Studies

A COMPARAIVE STUDY OF HUMAN VERSUS MACHINE TRANSLATION OF SOME RHETORICAL DEVICES: PUNS AND TAUTOLOGY IN IBRAHIM TOGAN'S POETRY

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This Thesis is Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Applied Linguistics and Translation, Faculty of Graduate Studies, An-Najah National University, Nablus, Palestine.

2022

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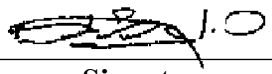
Dr. Ayman Nazzal	
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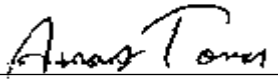
Dr. Anas Tome	
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Dedication

To my mom and dad; who have never got tired of loving me, whose prayers make me able to get such a success.

To my brothers, Muhammed and Osama, who are always there to support me.

To my cousin, Maryam, who is the one to give me love and support all the time, who loves me as I am.

To my friends, Kiara and Lina, who always open the way for me, and without whose enthusiasm, this thesis might still be unfinished.

To my friends, all my friends, I dedicate this thesis.

.

Acknowledgment

I express my eternal gratitude to my supervisor, Prof. Ayman Nazzal, who read my numerous revisions and helped me make some sense of my confusion. Without his effort, patience and guidance, this thesis would not have been completed in the way it is now. I also would like to express my sincere appreciation to the committee members, Dr. Mohammed Thawabteh from Al-Quds University, and Dr. Anas Toma from An-Najah National University, who offered guidance and support.

I would also like to express my gratitude to everyone who contributed to the writing of this thesis even by a word.

Declaration

I, the undersigned, declare that I submitted the thesis entitled:

A COMPARAIVE STUDY OF HUMAN VERSUS MACHINE TRANSLATION OF SOME RHETORICAL DEVICES: PUNS AND TAUTOLOGY IN IBRAHIM TOGAN'S POETRY

I declare that the work provided in this thesis, unless otherwise referenced, is the researcher's own work, and has not been submitted elsewhere for any other degree or qualification.

Student's Name Amani Ibrahim Muhammed Rawajbi

Signature Amani Rawajbi

Date 22nd/12/2022

Table of Contents

List of Tables

List of Figures

List of Appendices

A COMPARAIVE STUDY OF HUMAN VERSUS MACHINE TRANSLATION OF SOME RHETORICAL DEVICES: PUNS AND TAUTOLOGY IN IBRAHIM TOGAN'S POETRY

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Abstract

This study aims to compare Machine Translation (MT) to Human Translation (HT) of some rhetorical devices of puns (absolute and homophonic) and tautology in Ibrahim Togan's poetry. The researcher chooses the descriptive method and the questionnaire as an instrument for the study. The target population of the study was a sample of (30) M.A. students of translation and (3) MT engines (software) which include (Google Translate, Bing Translate, Babylon Translate).The results of the study show that HT of Puns (absolute and homophonic) and tautology of Ibrahim Togan's poetry can be reliable compared to the MT. It also points out that MT engines should have a huge literary glossaries about the target culture especially literary and puns words, also the study finds that the M.A students of translation were confused about some pun words, so they resorted to the surface meanings.

The findings of the study recommend that MT engines be developed by their own programmers to enrich their systems and glossaries with literary words and idioms. So, this study assures programmers to sustain developing these engines with puns and tautology words correctly, taking into consideration the correlation and meaning of the whole context of the poem.

Keywords: Neural machine translation, computational linguistics, human translation, artificial intelligence, poetic translation, translation quality**.**

Chapter One

Background of the study

1.1 Introduction

As a human activity, translation has existed since ancient times and aims to convert meanings between languages (Jalal, et al., 2012). Traditionally, translation takes time and effort and is heavily dependent on the translator's experience. Fortunately, this reality is changing radically, because of the emergence of new technologies and the development of computers. Therefore, new fields of knowledge have emerged linking computer science and human language, and the concept of "natural language processing", which is an artificial intelligence application that focuses on enabling a computer to understand and process human languages. Artificial intelligence recorded great progress in the field of translation until it became similar to what science fiction writers imagined decades ago.

Translation is a science, an art, and a skill. It plays an important and vital role in our lives and our communication with each other. Professional Translation. known as HT, is the process that involves an actual bilingual person or more to translate written documents from one language into another. The limits among HT and MT are often faded, and computer–aided translation can sometimes related to both. But the main essence of MT is to make the translation process completely automated (Wu, et al, 2016).

Translation, whatever its kind, requires the availability of certain conditions, none of which can be overlooked, and most of them are related to the translator himself in terms of his capabilities, training and knowledge of the subject of the translated text, whether written or audio, whether the translation is immediate or not (Ammon, 2010).

Akeel and Mishra (2014) define MT as a type of translation that can turn automatically one text or voice language into another language. Itis the traditional of the different sub-disciplines and computer science applications to the study of thecommon language and is considered as a field of research and development. MT is also a sub-discipline of computational linguistics.

Perhaps the most difficult areas of MT are those related to the translation of poetic works, as poetry represents a human message and expresses the spirit of the nation. Moreover, its translation constitutes an important means of communication between cultures, and this is what adds to the translator's work to rise to the position of the original poet in creativity in the translation work. In this case, MT gives the translatorthe means and tools that enhance the creativity and development of translation. The quality of the output of translating Palestinian literature and poetry can be improved in terms of productivity and accuracy, through humantranslator intervention.

Therefore, it is greatly stressed to evaluate machine translated text by humans, because they are labelled as "gold standard" and as a reference to the MT operation (Seljanand Pavlovski, 2020).

Regardless of unfamiliarity, the advancement of MT systems has sparked and motivated numerous studies, ranging from MT performance assessment to enhanced programming add-ons. The fact that studies on MT continue to be published indicates that it is a subject worth investigating. Just a few researchers have looked at and compared the translation time and accuracy of HTcompared to MT readability, syntaxand post-editing so far. That to say the poetic tautology and puns that are translated from Arabic to English using MTsystems can be something challenging for both HT and MT to be translated, so the translating of these rhetoric devices, can help a translator generate a perfect piece of translation. Thisstudy

compares these pieces of translation of poems from Arabic to English, by comparing HT and MT in translating puns and tautology of Ibrahim Togan's poems.

1.2 Purpose of the Study

This study aims to examine the differences between MTand HT in terms of the ability of both of them to translatepuns and tautology of Ibrahim Tugan's poetry efficiently and accurately using MT systems of (Google, Bing and Babylon translation) engines.

1.3 Significance of the Study

This study tackles the translation of tautology and puns usingMT and HT in terms of reliability and accuracy of the chosenverses of Ibrahim Tugan's poetry. The use of MT systems is an important issue as number of high-tech digital devicesare incresingin our lives. As this kind of translation attempts to either eliminate or keep up our norms or replace them with Humans'. Most of the poetical works are acutelylavised with ideological or cultural values. Therefore, this study seeks to analyze MT and HT in terms of dependability on themwhilst translating tautology and puns of Ibrahim Tugan's poetry. Additionally, this study's findings and recommendations will be useful for academics, students, translators interested in the topic of translating puns and tautology..

1.4 Question of the Study

This study tries to answer the following question:

Are there any differences between MT and HT with regard to the rendition of puns and tautology in Ibrahim Togan's poetry ?

1.5 Limitations of the study

There are several limitations to the generalizability of the findings of the study:

- This study is limited to the translation of MT systems of Arabic tautology and puns in poems of Ibrahim's Togan comparing to HT.
- It focuses on two types of puns (absolute and homophonic) and one for tautology.

1.6 Study Hypothesis

Based on the question of this study, the following hypothesis is developed:

There are no differences between MT and HT with regard to the rendition of puns and tautology in Ibrahim Tugan's poetry ?

1.7 Operational Definition of Terms in the Study

MT: The process of using computers to translate documents from one natural language to another is known as machine translation. MT has proven to be a difficult undertaking, as there are currently a number of systems available that, although not perfect, still give output that is of a sufficient calibre to be useful in a number of particular fields (EAMT, 2022). A branch of computational linguistics is known as MT studies which depends on use of computer software to translate text or speech between natural languages (Hutchins, 2005).

MT system: Automatic translation is carried out using MT system, which includes the fields of artificial intelligence. Without the aid of a person, a machine translation system may translate text from one language (source language) to another (target language).(Memsource; accessed on January 31, 2022)

Puns: are built on the interaction of homophones, which are words that sound the same but have different meanings. Additionally, it can be used to toy with words

that have a similar sound but differ somewhat. The confusion between the two meanings is where the joke's humour, if any, comes from. (Literaryterms.net, accessed 31 January 2022.)

Tautology:is an assertion that uses almost equivalent morphemes, words, or phrases to repeat an idea, essentially "saying the same thing twice" (Bryson,1999:75).

A rhetoric Device:is a strategy used by authors or speakers to persuade readers or audience to evaluate an issue from a particular perspective. It involves utilising words intended to stimulate or inspire an emotional exhibition of a particular perspective or action.“Through the use of language, rhetorical devices can elicit an emotional response from the audience, although that is not their main goal. Instead, they aim to make a stance or argument stronger than it would otherwise be by doing so”. (Crews and Timothy, 2007).

Google Translate: a free, multilingual neural MT tool created by Google for converting text and webpages across different languages. It provides a website interface, an Android and IOS mobile app, and an application programming interface that aids programmers in creating software apps and browser extensions (Ulatus, retrieved 11-1-2023).

Microsoft Bing Translator:“This is a hybrid system for machine translation of natural languages. The system is based on a statistical machine translator, which also uses language-dependent rules and a certain amount of source text analysis”. Microsoft refers to this system as “linguistically informed statistical machine translation“. The system is basically a statistical system for machine translation based on phrases, which includes language-dependent text analysis and word alignment rules for generalization of learned phrases. (Alfohili,2021)

Babylon Translator: Software for professional translators and more experienced users called Babylon Translator. This software is better suited for advanced

translation tasks because to its expanded and specialized dictionaries and multi-document translation. Simply copy and paste any English page and press translate for a quick and accurate translation when translating a large document.(Babylon, accessed 11-1-2023).

Chapter Two

Review of Related Literature

2.1 Theortical background

Theoretical background is represented in this section which includes: MT systems, and evaluation of HT.

2.1.1 Machine Translation

The term Machine Translation(MT) is the standard name for the computerized process responsible for producing translations from one natural language to another, with or without human assistance. Previous names such as 'mechanical translation' and 'automatic translation' are rarely used in English, but their equivalents are still common in other languages. The term does not include computer-based translation tools that support translators by providing access to remote dictionaries and terminology databases, facilitating the transmission and reception of machine-readable texts, or interacting with word processors, text editors or printing equipment (Wu Y. et al., 2016).

2.1.2 MT Systems

There are many Arabic-English MT systems, (Abu-Al-Sha'r and AbuSeileek 2013) listed the following Arabic-English MT systems:

- Google Translate: This famous global machine can translate in both directions from Arabic into English and other languges.
- 1-800-translate: It provides translation services in more than 150 languages, including Arabic into English.
- Worldlingo: It is an Arabic into English or vice versa easy to use and instant to use technology.
- TranSphere: It is an Arabic into English translation software which renders texts from one natural (human) language into another.

- An-Nakel Al-Arabi: It translates in both directions from and into Arabic and English.

In addition, there are several Arabic-English MT systems

- Golden Al-Wafi: It is computer-based software that can translate in both directions from Arabic into English, or vice versa. It allows the possibility of a full texts translation through a simple interface.
- Al-MuTarjim Al-Arabey: It translates from Arabic into English, or vice versa.
- Bing Translator: It translates in both directions from Arabic into English.
- Systran: It translates in both directions from Arabic into English.
- AE-TBMT: It is Arabic into English transfer-based MT system.
- Sakhr: It provides MT for bi-directional Arabic-English translation. It is a hybrid engine that optimizes rules-based and statistical-based processes.

2.1.3 MT in Arabic langauge

As for the Arabic language, foreign projects were the first to approach this field and try to achieve a head start in it. The “systran” system was one of the first programs in this field. This program was developed two decades ago, but for administrative and economic reasons, it was not able to spread, and among these reasons are that the program is running on a large computer ' main frame ' (Habash, 2006).

One of the companies that tried to enter the field of translation into Arabic is Alps, a company that has many automatic translation programs for many languages and applies the principle of interactive translation, but it stopped working on the development of the translation program into Arabic since the mid-eighties(Alqudsi et al. 2014).

2.2 Theoretical frames related to puns

It is obvious that translators should not settle for interpreting literal meanings that seem on the surface; rather, they must explore the nuances of meaning in order to accurately convey the pun's intended meaning or meanings. This makes the translator's job difficult and complex.So this study goes into theories related to translating puns and tautology.

2.2.1 The theory of "Relevance" and "Puns Translation"

One of the related theories presented by Dan Sperber and Deirdre Wilson (2008) is the relevance theory, both of them tried to explicate the second communication method,especially the one that consider the " implicit inferences".

The basis of the "relevance theory "is categorized to the following presumption:

- The general cognition's presumption which pays attention to the relevance as a tradeoff relationship among effort and effects,and the assumptions that perception is apt to overstate relevance.
- Communication's presumption stresses the recognizing of a speech requires extrapolating the speaker's interactional and instructive motives, and the relevance-theoretic comprehension process, a probabilistic reasoning that directs the quest for the intended interpretation of expressions, is required by the communicative principle of relevance and the presumption of optimal relevance (Wilson, D.; &Sperber, D., 2008).

I take into account the relevance theory for its connection to the study since it focuses on the utterance and the relevance it implies, puns and tautological words are also referential, so I stress the importance of this theory on this study.

2.2.2 The Deconstruction Theory and Puns Translation

Deconstruction uses a variety of tactics to achieve its goals, with puns being one of the most popular. Deconstruction seeks to undermine what it deems the logocentrist presumptions of contemporary culture and its various discourses. Puns are frequently used in Derrida's and his followers' writing in an effort to break the link between signifier and signified, word and meaning, upon which our discourses so heavily rely. According to Derrida, the relationship is both illusory and logocentric. Puns are thought to have a fixed meaning that is inherently (they are at least multi-referential and very potentially indeterminately referential), making them particularly well-suited to the deconstructionist exercise, where meaning is held not to be a fixed (or even fixable) phenomenon: The concept that an idea or "interior design" is just anterior to a production that would purportedly be the embodiment of it is a prejudice. Meaning is neither before nor after the deed. a bias of the historical criticism known as idealist' In Stuart (1987).

There is not a fixed meaning for puns which gives a multiple shaded-meanings, so this make a necessary for obtaining strategies to translate Arabic puns into English language.

The majority of concepts obtain the same view, as they presume structures assembled around the centre. However, the centre has no effect by the structure round it, so it must be noticed as an inhabitant from outside of the system, as something not really existent in the centre. Though initiating the centre lines that everything goes round, the centre which includes the source, aim, and interpretation of them all as they are not a piece of the system it marks, it is not situated in its centre. Derrida continues to give a list of dominant thinkers who contribute in the upgrading from structuralist to post structuralist thinking, which include (Freud, Heidegger and Nietzsche).All the new principles and theories works on the same basis of the metaphysical system.

We got two kinds of meaning, the surface and deep, Nida (1964) used these definitions for example the surface and deep structure in his model of translation the analysis-transfer-restructuring.

In addition, she pointed out that there are referential and connotative meanings, the first one works with the word which resembles symbols or signs, while the latter uses the emotional response created in the reader by a word.

As a result, there is some uncertainty and vagueness in how the linguistic indication is understood.Her research is extremely pertinent to this investigation since it discusses two structural issues that arise when poets' puns are translated.

I stress the importance of the deconstruction theory for its connection to the study since puns and tautological words are also referential that every translator has to work out their meanings according to the signs or symbols they imply and to facilitate the transformation of meaning when it comes to translating poetic works and literature in general to the target language, despite the instability of meaning which is not fixed according to the deconstruction theory.

2.2.3 Puns from a rhetorical point of view

Since rhetoric is the primary source of all current theories that can be developed, it is at the centre of translation science.

Because they were the first to convert the written word into a speech, rhetoricians are commonly believed to be the first translators in human history (Thomas, 1992).

Many academics have researched rhetoric, including Herrick (2001), whose research focuses on the subject's evolution. Herrick follows rhetoric's history from Ancient Greece to the present day.

He begins with Richard Leo Enos, a Greek rhetorician who discovered three fundamental purposes for language: heuristic, eristic, and protreptic.

The first function emphasises the creative processes (which are similar to our abilities to find effective ways to communicate our thoughts), while the second emphasises the intrinsic power of language itself.

Additionally, the third simultaneously focuses on how words can influence or guide human mind (which provide human beings with the ability to creatively engage with language).

Additionally, rhetoric was described by Aristotle (1939) as the systematic and practical opposite of dialectic. Throughout the art of rhetoric, he differentiated between three types of proofs (Selzer, 2004):

- Logos: A call to logic that makes use of rational justification and argument structure, such as making assertions, giving compelling explanations for them, and providing evidence to back them up.
- Pathos is an emotional appeal that is frequently based on the audience members' own beliefs.The audience can be persuaded to behave, accept a claim, or react a certain manner by manipulating their emotions.
- Ethos: An appeal based on the author's moral character.It entails convincing the audience that the author is dependable, qualified, or possesses other positive traits that give the author's ideas merit.

Among the most renowned rhetoricians who studied rhetoric was Marcus Tullius Cicero. He founded his theory on the ideas of Greek orators like the Sophists. He separated the rhetorical canons into four categories: invention, arrangement, memory, and delivery. Every effective orator would get beyond these obstacles.

When Robinson (2002) examined the evolution of the theory of translation and uncovered its philosophical foundation, he also built a bridge between rhetoric and translation (which ran from Herodotus to Nietzsche). He identified four phases in the evolution of the theory of translation: the traditional, the theoretical and

hermeneutical, the modern, and the current. He sought the advice of Goethe, Cicero, and St. Jerome. Cicero recognised the dynamic nature of translation and recommended that we translate sense-for-sense, with the exception of the Holy Book (who recognised the style of translation and its significance).

2.2.4 The definition of puns

A popular poetic element known as a "pun" is a term that means "plays on words" (Gray, 1984: 168).The phrase "using words in a humorous and tricky manner, produce a pun" has to be understood from this definition.

The terms "amusing and tricky," which were just stated, could indicate "humour and vagueness". This can be backed by thinking of a "pun" as a game on distinct words that appear the same as each other for the purpose of creating auditory jokes, which has a lot to do with "humour," or as a focus on the alternative meanings or applications of a word or phrase for the purpose of making riddles, which has a lot to do with "ambiguity"" (Crystal, 2004:408).

2.2.5 Categories of Pun

Accordingly, and from a linguistic point of view, pun falls into two broad categories: the implicit and the explicit varieties:

1. Implicit pun: when a word is mentioned only once but carries two or more meanings that the reader has to decipher for himself.
2. Explicit pun: repeating the same word in a different meaning.

2.2.6 Typology of Pun

Puns are a type of word play that purposefully exploit the ambiguity between words with similar sounds for comedic or rhetorical effects. A deliberate abuse of homophonic, homonymic, polysemic, or metaphorical language might result in such

ambiguity (www.wikipedia.com). As a result, and depending on their source, puns can be classified in several ways. The significant ones are listed below.

1. Homophonic or Phonological Pun: This kind of pun occurs when words differ in the way they are written, orthographic difference, but pronounced alike such as sea/see, flour/flower (leach, 1969: 210-11).
2. Homonymic Pun this type is resulted from using distinct words spelt and pronounced alike (Leach, 1969: 209 – 10).
3. Semantic or Polysemic Pun One polysemic word—one that has several diverse senses—occurs in this kind when it repeats with two dissimilar senses. This particular joke is overt. For instance, the polysemic word "neck" could signify several things depending on the context, including a part of the human body, a sort of clothing, and a bottle(Leech, 453).
4. Parody Pun The foundation of a parody pun is the necessity conveyed in the form of a parody commonly seen in aphorisms, proverbs, and other sayings (Chengming, 2004: 89). This particular pun is well-known in both social and cultural circles.
5. Phonetic Pun The phonetic structure of the sentence produces a phonetic pun in spoken language. As units of speech made up of different words become phonetically ambiguous, for example, "near" could be confused with "an ear," "an aim" could be confused with "a name," and, as in the example below, "an arrow" could be heard as "a narrow," it depends on the acoustic breath group unit of speech, not the individual word.
6. Morphological Pun According to Crystal (2004), a morphological pun is created by playing with the components of word structure, such as affixes or splitting words in unexpected ways.
7. Visual Pun The use of symbols to imply multiple meanings or relationships is known as a visual pun.

A visual pun creates a new meaning by combining two or more symbols (images and/or phrases).

2.2.7 Puns in Arabic

The Arabic counterparts of the word "pun" in English are both جناس اضمار معنــوي or as some call it جناس لفظي تام

Puns in Arabic can be classified into the following categories(السيد،1986):

1.تــام **Absolute pun:** are utterances that are similar in specific formal characteristics but have different meanings. (العلــوي, 1914).Since utterances share the same letter types, numbers, orders, and diacritical mark usage, this is referred to as (السيد, 1986): الجناس التام is of three types ' مستوفي', ' مماثل' and ' مركب'.

a. جناس لفظي تام مماثل

When two words that are spelled and pronounced similarly belong to the same part of speech for example:

فانع المغيرة للمغيرة إذ بدتْ شعواء مشعلة كنبح النابح

The first "مغيرة " means " the horses ", the second is a proper noun. Both are nouns.

b.جناس لفظي تام مستوفي

This is found when the repeated words are pronounced

alike and have different parts of speech (ibid):

ما مات من كرم الزمان فإنه يحيا لدى يحيى بن عبدالله

" يحي" is a proper noun while " يحيا" is a verb. They are pronounced alike.

c. جناس لفظي تام مركب

It happens when a repeating element contains more than one word (ibid: 318):

و لاتله عن تذكار ذنبك و ابكه بدمع يحاكي الويل حال مصابه

ومثل لعينيك الحمام ووقعه وروعة ملقاه ومطعم صابه

الجناس here lies in the similarity in pronouncing "مصـــابه", which is the first element, and the second "مصـــابه" which we could hear resulting from pronouncing "م – " the last letter of "مطعم" and the word "صـــابه". This kind of "جنـــاس" is called "المرفـــو": when one of the elements is composed of one word and a part of another.

2.2.8 The use of puns on context

An obstacle to comprehend any language is "meaning" especially when one language is conveyed to another. Puns translation is even problematic because the ambiguity of their meanings that carry the translators to over and under-translate. A lot of Scholars investigate the meaning as it is the main subject in translation (See Hatim and Munday, 2004; Hatim,2001).

The insufficient of other equivalent meaning hardens translation and makes it impossible job since the aim of translation is to find the acceptable equivalent for any linguistic part. In case the translators can not obtain any similar word they will get a meaning that does not suit the synonym of the word of the source language.

To describe poor translations, Hatim (2001) created the term "translationese."

Because there are two levels of knowledge within any document, namely the text and the meta-text, this always happens when translators misinterpret the message behind the text.

Hatim and Munday (2004) applied the method of scientific meaning accounting as a result (also known as componential analysis method).They made a distinction between referential and connotative meaning. Lucas (2004) investigated how second language learners comprehend such inventive language use, he relied from a study he and a colleague had carried out at a private university in Caracas, Venezuela. Their study explicitly assessed the students' comprehension as well as their capacity to determine the meaning of the pun word by mimicking the cognitive and interpersonal techniques used by the participants in their attempts to comprehend the ambiguity of texts.

2.3 Definition of Tautology

Tautology is the use of words that repeatedly and redundantly convey the same notion using various phrases. It is either used to reiterate a message that has already been made or to highlight a point that has already been made (Pomorska, 1987).

The 18th and 19th century poets frequently used this word repetition in their compositions. Investigating the problem of tautology requires developing formal theories for assessing and speculating on the constant repetition of terms in the text.

2.3.1 Tautology in poetry

Expressions that build on ideas that have already been mentioned in previous phrases are known as tautologies (Gibbs, 1994).Tautologies don't reveal anything about the world or the language, according to Leech (1969).The development of more rigorous ideas for assessing and speculating on the use of repetition in poetry may offer a viable answer to the tautological problem (Ward & Hirschberg,

1991).These theories, however, are still in their infancy and are hampered by the difficulties of associated concepts with descriptive categories as well as the crucial distinctions between the two that are completely neglected and lead to a methodological error.

While it may appear that tautology is just the reuse of identical words, it differs from duplication or redundancy arranged from the paraphrastic use of various words with the same meanings (Waldoff, 2001). Due to these realities, tautology elevates poetry, and it is far more important than it first appears. It also has something to do with how language conveys meaning. When different words are used to convey the same message, it is claimed that the phrases' or the songs' meanings go beyond what those words can represent (Keach, 2004). Poetic words' meanings can continue to be understood even after they have been repeated many times. In this light, tautology appears to occur when language encounters figurative limitations. It's interesting to notice that tautology not only points out the constraints of language but also highlights the possibility of going beyond them.

2.4 Related studies about MT

This part presents studies conducted about MT.

Zhao, S. (2021) focused on A pilot investigation was carried out to make a “comparison of post-editing (PE) Google neural machine translation (GNMT) to HT with Selected Modern Chinese Essays: Annotated Bilingual Edition, Volume 1. This is due to the growth of neural machine translation (NMT) and encouragement of prior research”. Six student translators were asked to participate in a voluntary endeavour to achieve this. Three of them had a minimum of two years of translation service experience, and they were enrolled in a postgraduate M.A. degree in Chinese-English translation. Two Chinese articles were given to them to translate using two different workflows: post-editing Google neural machine translation and translating from the ground up, respectively. They were requested to complete the

pre- and post-experiment questionnaires online using Survey Monkey, and the elapsed translation time was tracked by a stopwatch programme. Then, in order to further explore their opinions of post-editing GNMT and SDL Trados Studio 2019, they were invited to participate in a one-on-one personal interview where they discussed the specific translation issues they had faced during the experiment. After the experiment, I compared the translation quality, computed the translation performance using the Pythagorean theorem, and collected and displayed in tables the student translators' perceptions via questionnaires and debriefing sessions. Results show that, with the exception of one individual, PE was quicker than translation from scratch of all the participants. Although post-edited translations were found to be of lower quality than translations created by humans from scratch, this should significantly reduce the efficiency advantages of PE. Additionally, while the majority of participants had positive attitudes on post-editing GNMT of literature, some of them expressed frustration with GNMT errors and stated that several SDL Trados Studio features may not be helpful for MTPE of literary texts.

Elmadanyand Abdul-Mageed (2021) study highlights that with the help of pre-trained models, recent advancements in neural MT have made it possible to successfully translate across monolingual language pairings in situations where there are massive parallel data sets. It is still unclear what the recent success in NMT and language modelling means for translating code-mixed text, despite the fact that there is work on translating in code-mixed settings (when one of the pairs comprises text from two or more languages). We look at MT from code-mixed Modern Standard Arabic and Egyptian Arabic (MSAEA) into English as one such instance. Using both pre-trained S2S language models and typical end-to-end sequence-to-sequence (S2S) Transformers trained from scratch, we create models under various scenarios (LMs). With S2S models that were trained from scratch, we can get acceptable performance utilising only MSA-EN parallel data. To aid the MSAEA-EN work, we also discover LMs that have been tweaked using data from diverse Arabic dialects.

The Shared Task on MT in Code-Switching is the setting for our work. Our best model receives a score of 25.72 BLEU, which places us at the top of the MSAEA-EN shared task evaluation.

Abdi, (2021) aims to determine whether MT software is viewed as a help or a threat to human translators by evaluating the output quality of an online MT, specifically Google Translate, from English into Persian and comparing its output with the translations made by human translators. For the study's practical application, the researcher created a translation test with 60 statements drawn from various Reiss-proposed text kinds (1989). The translation test was administered to three human translators via Google Translate for interpretation.The 60 sentences and the translations from Google Translate and the three human translators were delivered to 40 judges for evaluation using the criteria from Dorr et al (2010). MT quality assessment, including semantic adequacy, fluency, and understandability. According to the results, Google Translate did an excellent job overall translating the 60 statements into Persian in terms of semantic sufficiency and understandability but not fluency. In conclusion, MT applications cannot be seen as a danger to human translators, but rather as an assistance for them, and there should be no concern that they will be replaced by them. Additionally, the current study provides some recommendations that can be helpful to translators, trainee translators, teachers translation, and professional translators.

Seljan and Pavlovski (2020) believe that since the dawn of literacy, the calibre of literary translation has been a significant role in publication, which has a knock-on effect on research and education. In higher education, especially, the accuracy of literary text translation is of highest importance to scholars and students. Only thorough translations of the highest calibre are deemed necessary for use in the analysis and study of a particular author's or literary genre's style and thoughts. Due to the fact that machine translations generally are regarded as inferior and

inappropriate for further distribution and scrutiny, this quality check applies even more to MT in general. Since MTs are regarded as the "gold standard" and reference translations in the MT process, the requirement for human quality review of machine-translated material is consequently strongly emphasised. The purpose of this paper is to investigate the effectiveness of applying MT on the Croatian-German language pair in the field of poetry, with regard to human evaluation of MT quality, using the example of a data set consisting of poems written by a significant contemporary Croatian poet. In this study, two MT quality criteria—adequacy and fluency—are taken into consideration when doing the human evaluation. This is followed by an analysis of the inter-rater agreement.

According to Stevanović (2020), the need for translators and interpreters has risen so quickly as a result of globalization that there aren't nearly enough of them to go around. So, a number of linguists and technologists have been motivated by MT. Despite the fact that MT dates back to the 1960s, it took another 20 years for systems to develop that can produce translations that are on par with those produced by humans. In many professional translation environments today, including the translation service provided by the European Union, MTs play a significant role in the translation process. They are frequently employed by those who want to communicate with others who don't speak their native language or grasp the main ideas of a work published in a foreign language. The fact that in 2010, approximately a third of Internet users routinely utilized MT tools and that in 2017, MT accounted for nearly half of all jobs in the language business are further indications of this.

Popel et al. (2020) believe that for a long time that computer translation systems could never match the accuracy of HT. In their paper, the researchers offer CUBBITT, a deep-learning system that questions this assumption. CUBBITT greatly surpassed professional-agency English to Czech news translation in

preserving text meaning in a context-aware blind review by human judges (translation adequacy). Although CUBBITT is found to be significantly more fluent than earlier state-of-the-art systems, HT is still rated as being more fluent. Furthermore, in a Translation Turing test, the majority of participants have trouble differentiating between CUBBITT and HT. In some cases, this effort is more adequate than HT and even comes close to it. This shows that deep learning might be able to take the place of people in situations where meaning preservation is the main goal.

Castilho, et al., (2018) states that assessment of translation quality involves a variety of linguistic and extra-linguistic aspects, and is a challenging endeavour in both study and practise. The definition and measurement of translation quality in human and MT workflows across a variety of academic, educational, and industry settings are critically analysed in their study. Although the researchers acknowledge the need for diversity in these approaches, they argue that there are fundamental and pervasive issues that still need to be addressed if they are to consolidate our knowledge and practise of translation quality assessment in increasingly technological environments across research, teaching, and professional practise. The researchers combined and weaved together literature from several interrelated disciplines dealing with contemporary translation quality assessment.

Wu Yonghui et al., (2016) focuses on “the promise to address many of the shortcomings of traditional phrase-based translation systems, neural MT (NMT) is an end-to-end learning approach for automated translation. Unfortunately, both in training and translation inference, NMT systems are known to be computationally expensive. The majority of NMT systems also struggle with uncommon terms”. These problems have made it difficult for NMT to be used in real-world deployments and services, where accuracy and speed are crucial. We offer GNMT, Google's Neural MT system, in this study, which makes an effort to address several

of these problems. Our model uses attention and residual connections and has a deep LSTM network with 8 encoder layers and 8 decoder levels. Our attention mechanism links the bottom layer of the decoder to the top layer of the encoder to increase parallelism and hence shorten training time. During inference computations, we use low-precision arithmetic to speed up the final translation pace. We break words into a select group of typical sub-word units (referred to as "wordpieces") for both input and output in order to better handle unusual terms.This approach naturally handles the translation of uncommon words, strikes a fair compromise between the adaptability of "character"-delimited models and the effectiveness of "word"-delimited models, and eventually enhances the system's overall correctness. By using a length-normalization process and a coverage penalty, our beam search technique encourages the creation of an output sentence that is most likely to include every word in the source phrase. The results that GNMT delivers on the WMT'14 English-to-French and English-to-German standards are competitive and state-of-the-art. When compared to Google's phrase-based production system, it reduces translation errors by an average of 60% using a human side-by-side evaluation on a collection of isolated simple sentences.

To sum up, I have provided a thorough analysis of puns and tautology in this chapter; in particular, I have focused particularly on the many forms of puns, the use of tautology, and the relevant MT researches. All of the academics who studied the punning issue concentrated on the multifaceted character of meaning, although their approaches to this issue varied. The majority of the scholars used the standard methods for interpreting puns, including translating a pun for a pun (see: Lucas; 2004).

Considering that there are two levels of meaning, the hidden and the obvious, when it comes to indirectness and its relationship to punning, it would seem that punning is one of the features of indirectness. Whileexplaining the role of tautology which

gives adistinctive rhythm, but repeating the tautological element, and that gives a poetic speech sound closer together. Since it focuses on the translation of Arabic puns and tautology into English, the current study differs from previous studies that looked at puns, tautologies. This study is relatively focused on poems by Ibrahim Togan as compared to previous researches, the researcher chooses absolute and homophonic puns, tautology words first explaining their use in Arabic with vivid examples, then tautology words and their importance on the poems.

Chapter Three

The Methodology

This study took fifteen verses of Ibrahim Togan's poems which contain puns (absolute homophonic pun and tautology words). The types of puns and tautology were chosen randomly because there were many tautological and puns words in the poetry of Ibrahim Togan, so this chapter presents the method of the study. It also includes a description of the sample, the validity, reliability of the instruments used for data collection, procedures of the study, and data analysis.

The purpose of the current study was to examine HT and MT of puns and tautology in Ibrahim Togan's poetry.

The methods used during the course of the study are covered in this chapter. I introduce a thorough explanation of the study's methodology, together with information on the demographic, sample, instrumentation, pilot study, and questionnaire employed in the investigation.

3.1 The research design

This study aims to compare the translation of puns and tautology words of human Arabic to English poems of Ibrahim Togan with the MT Systems and to evaluate the progress achieved by various systems of Arabic into English MT Systems. This study focused on translation systems (Google Translate, Microsoft Bing Translator, Babylon translator) according to the Arabic poems of Ibrahim Togan that contains tautological and puns word.

For tracing the target of the study, I choose some verses, of absolute and homophonic puns and tautology that are used in the poems of Ibrahim Togans, which are revised by panel of translation experts (see appendixC), that number of items are (15) which are distributed as follow:

Table (1)

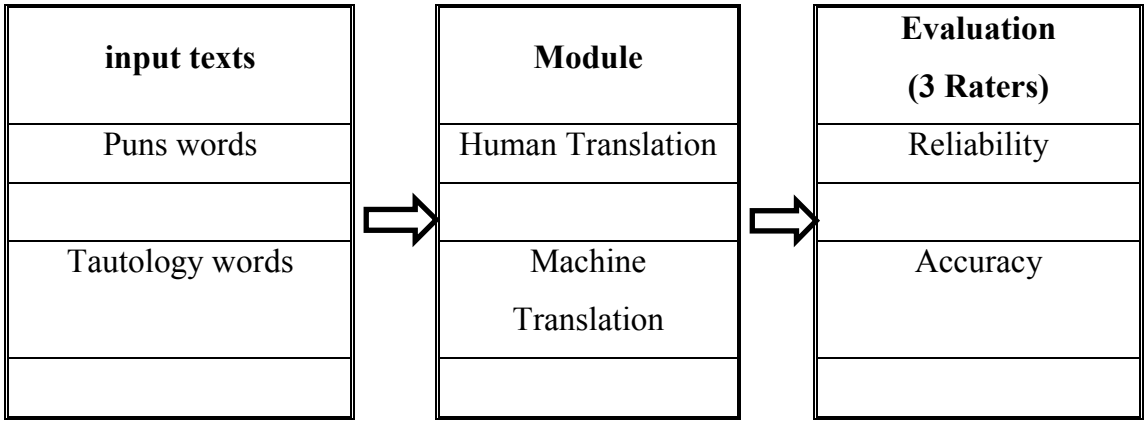
The number of items representing each domain

Domain	Items	NO. of items
absolute pun الجناس التام	1-5	5
Homophonic pun الجناس الناقص	6-10	5
Tautology التكرار	11-15	5
Total	1-15	15

Figure (1) shows the general framework that used in this study.

Figure (1)

The general framework of the stud



3.2 The population of the study

The population of the study for HT consisted of all students at the English departments at Al-Najah National University, Master's Students of Translation. They are about (45) students enrolled in the academic years. (2021–2022), as for the MT the population of the study consists of all the MT engines.

3.3 The sample of the study

The data were collected from (30) M.A. students of translation and (3) MT engines.

Table (2)

The distribution of the sample according to translation

Classification	No.	%
HT	30	90.9
MT	3	9.1
Total	33	100

3.3.1 Sample description

In this study, I conduct a research paper entitled a comparative study of Human versus MT of some rhetorical devices: puns and tautology in Ibrahim Togan's poetry. As a part of M.A. thesis at Al-Najah University-Nablus. The purpose of the study is to compare between HT and MT systems (Google Translate, Microsoft Translator, Babylon translator).

This study intends to measure the translation of puns (absolute and homophonic) and tautology) the outcome is evaluated from three experts of translation to find the accuracy and reliability of the translated words of puns and tautology.

3.3.2 Software instrument of the study

This study uses purposive sampling three MT systems: Google Translate, Babylon Translator and Microsoft Bing Translator).

3.4 The instrumentation

The questionnaire

I chose the questionnaire because it is the best way to test the reliability of translating the puns words (absolute & homophonic) and tautology via HT by presenting them toMA students of translation in Al-Najah national university, then

applied the same questionnaire into machine translation; the outcome of both translations is evaluated by the panel of translation experts.

In writing the questionnaire, I relied on the following points in constructing the questionnaire:

- Investigating the previous literature.
- Reading all the poems of Ibrahim Togan
- Opinions of experts

I compound all the previous points and put the whole questionnaire together to be ready in its final sheet (see Appendix B).after presenting it to the panel of specialists (see Appendix A).

3.5 Validity

Validity is defined as the truth of the questionnaire in relation to what it is supposed to evaluate. It concerns the relevance and usefulness of what you are measuring. The content of The questionnaire is revised by a panel of specialists who works at Al-Najah National University. See appendix (A)

3.6 Reliability

To examine the reliability of the analysis process, I asked for the cooperation of students of M.A. students of translation. At first I applied the analysis by analyzing the whole verses then I did the same process separately. The aim is to find out the correlation between the two results of the surveys for reliability. Pearson correlation (Cohen, 1988) was calculated for each of the three domains and then I calculated the mean of the data. The correlation between the main researcher and the grade obtained from the students of master degree of translation was as it appears in Table (3).

Table (3)

The content analysis by the researcher and students of master degree of translation

Analysis	First analysis	Second analysis	Agreement points	Difference points	Coefficient Correlation
absolute pun الجناس التام	23	24	23	1	0.979
homophonic pun الجناس الناقص	20	22	20	2	0.952
Tautology التكرار	21	19	19	2	0.950
total	64	65	62	5	0.961

3.6.1 Reliability through time

I repeated the analysis process after thirty days to investigate the reliability of the content analysis. I used Holistic correlation equation (Barree el al, 2009) to determine the reliability through time as follow:

$$\text{CR} = \frac{2R}{N1+N2}$$

Table (4)

Shows the agreement and difference points through time the researcher

Analysis	Second analysis	First analysis	Agreement points	Difference points	Coefficient Correlation
absolute pun الجناس التام	22	23	22	1	0.978
homophonic pun الجناس الناقص	19	20	19	1	0.974
tautology التكرار	20	21	20	1	0.976
total	61	64	61	3	0.976

3.6.2 Split-half method

I determined the association between the first and second halves of each questionnaire domain and the entire questionnaire. The reliability coefficient was then determined by modifying the length of the questionnaire using the Guttman Formula (Guttman.1944), as shown in Table (5).

Table (5)

Correlation coefficient between the two halves of each domain before modification and the reliability after modification

Domain	No. of items	Correlation between two parts	Reliability after modifying
absolute pun الجناس التام	5	0.828	0.906
homophonic pun الجناس الناقص	5	0.720	0.837
Tautology التكرار	5	0.888	0.941
Total	15	0.757	0.862

* The researcher used Gutman coefficient for unequal halves.

Table (5) shows that the reliability coefficient by using split- half after modification more than (0.862) and this indicates that the questionnaire is reliable and I am satisfied to apply it on the sample of the study.

3.6.3 The Alpha Cronbach Method

To evaluate the test's validity using the Alpha Cronbach coefficient, I turned to a different approach. Every domain had an Alpha Cronbach coefficient over (0.504), which means that the test was extremely reliable and I felt confident using it on the study's sample. Table (6) demonstrates this.

Table (6)

Alpha Correlation Coefficient of the Questionnaire Reliability

Domain	Number of Items	Alpha kronbach
absolute pun الجناس التام	5	0.923
homophonic pun الجناس الناقص	5	0.785
Tautologyالتكرار	5	0.698
Total	15	0.797

The results of table (6) revealed that the four domains' dependability ranges were over 0.797. These findings show that the questionnaire was appropriate for use in this investigation. With the use of the split-half and Alpha Cronbach procedures, the questionnaire's reliability was evaluated.

3.7 Referee Validity

Three professionals reviewed the questionnaire to guarantee its validity and applicability. According to appendix (A), these specialists are from Al-Najah National University.

3.8 Internal Consistency

As was previously noted, this sort of validity shows how closely each item's degree correlates with the test question to which it is assigned. The correlation between each verse and the overall test grade was then calculated. I used a pilot sample of thirty participants to administer the test, and from that sample, I calculated the internal consistency using the person correlation coefficient as well as the correlation coefficients of each item with each of the questions to which it is related. Each item under its purview has a correlation coefficient that is significant at levels (0.01) and (0.05).

Table (7)

Correlation coefficient of each item with the total degree of each domain

Domain	Item	Correlation with domain
absolute pun الجناس التام	1	**0.801
	2	**0.817
	3	**0.810
	4	**0.863
	5	**0.833
homophonic pun الجناس الناقص	6	**0.841
	7	**0.857
	8	**0.810
	9	**0.841
	10	**0.808
tautology التكرار	11	**0.864
	12	**0.833
	13	**0.829
	14	**0.804
	15	**0.869

* r table value at df (8) and sig. level (0.05) = 0.632

** r table value at df (8) and sig. level (0.01) = 0.752

The data from the previous table demonstrates that the values of these items were appropriate, consistent, and valid for carrying out this. Additionally, as indicated in the preceding tables, I verified the relationship between the three domains and the questionnaire's overall score.

I also calculated the correlation between the different questionnaire domains and the entire questionnaire. The findings are presented in Table (8).

Table (8)

Correlation between the Third domains with the total degree of the questionnaire

Domain	Correlation with total
absolute pun الجناس التام	**0.864
homophonic pun الجناس الناقص	**0.847
Tautology التكرار	**0.895

* r Table value at df (8) and sig. level (0.05) = 0.632

** r Table value at df (8) and sig. level (0.01) = 0.752

The three domains and the overall degree, as well as each domain's relationship to the other domain at the significant level (0.01), are correlated, as shown in table (8). This demonstrates the questionnaire's high level of internal consistency, which supports its validity.

3.9 Procedures of the study

The study used the following methods:

- Previous studies that could help with the study's steps.
- The theoretical framework includes a survey of pertinent literature.
- Examining the information gathered.
- Offering explanations.
- Making recommendations and suggestions.

3. 10 Statistical techniques

In order to analyze the data, I used the SPSS statistical packages as A statistical technique. The following statistics were used:

Statistical treatment:

I used the following statistical techniques:

- Frequencies and percentage.

- The Alpha Cronbach Method
- Split Half Method
- Pearson Correlation coefficient.
- T- test for two group

Chapter Four

Results of the study

This chapter tackles the results of the study, which is comparing HT to MT of puns and tautology of Ibrahim Togan's poetry, after translating the types of puns (absolute pun and homophonic pun) words within the whole verse, also tautology words, the three domains were introduced within the questionnaire which ask both human translators of (30) M.A students of translation at Al-Najah national university, in the graduate department of translation, the same questionnaire was presented into the three machine translation engines (Google Translate, Bing Translate, Babylon Translate engines),after that all the translation outcomes of both (human translation) and (machine translation) were evaluated by three experts (see appendix A), that data was calculated using (SPSS), so this chapter reveals the conclusions that were documented in the light of the study findings, and some recommendations to for anyone uses machine for translating poetic works.

Normal distribution test - kolmogorov-Smirnov test (1- Sample KS) Table Because most parametric tests demand that the data have a normal distribution, the kolmogorov-Smirnov test is employed to determine if the data have a normal distribution or not. The test results reveal that the potential value is greater than 0.05 (sig.>0.05) for each axis, which suggests that the data follow a normal distribution and require parametric tests. The Table (9) displays the number of sig. as (0.523).

Table (9)

Normal distribution test (1-Sample Kolmogorov-Smirnov)

NO.	Domain	NO. of items	z level	sig.
1	absolute pun الجناس التام	16	0.751	0.626
2	homophonic pun الجناس الناقص	22	0.902	0.39
3	Tautology التكرار	38	0.617	0.841
**	Total		0.852	0.523

The level of significance in the samples indicates that it is statistically significant, since it is greater than (0.05), and thus accept the imposition of a zero presence in the distribution of equinoctial skill tests, and thus can be used to in the (t. test) variation analysis

4.1 Statistics of HT of puns and tautology

1. Absolute puns الجناس التام

The sample of the study has translated the given verses of absolute puns and Table (10) below shows the means, standard deviation, percentage and order of the attempted translation of absolute puns with regard to the evaluation of the three experts translation consensus.

Table (10)

Means, Deviation, percentage of HT of absolute puns

Absolute puns	Means	Dev.	Percentage	Order
A.P. 1	2.51	0.27	50.14	**5**
A.P. 2	3.32	0.36	66.41	**1**
A.P. 3	2.83	0.20	56.65	**3**
A.P. 4	2.57	0.30	51.33	**4**
A.P. 5	2.92	0.33	58.44	**2**
Sum	**2.83**	**0.18**	**56.60**	

Table (10) shows that the translation of the absolute pun example number (2) as stated:

لو تعدّى لُجّة البحر به خاض في لُجّة دمع مُسبل

"If he could pass through that tumultuous sea with it,

He would find himself wading in tumultuous pouring tears"

The previous line had been evaluated according to the experts and translated among the (30) M.A. students of translation who succeeded in translating this verse according to them which comes first in this domain with percentage of (66.41%) and that reveals high in accuracy and reliability. while it also shows absolute pun example 1 as mentioned:

بلفور يومك في السماء عليك صاعقة السماء

Belfour, you will have a day of judgment in heaven

May thunderbolt strikes you down

The previous line had been evaluated and gained the lowest order in this domain with a percentage of (50.14%) of accuracy and reliability.

Overall, the whole domain is translated among the sample of (30) M.A students of translation with a total average mean (2.83) and accuracy and reliability percentage of (56.60%).

Most of the participants translated the absolute puns wordswith regard to their equivalent to English, they did notgive it aesthetic meaning in order to compensate for the loss in overall meaning. As a consequence, the repetition of translation of

pun words has been ignored in order to maintain the meaning of whole part of the verse.

2. Homophonic pun الجناس الناقص

The sample of the study has translated the given verses of homophonic puns and Table (11) shows in Appendix (E) the means, standard deviation, percentage and order of the attempted translation of homophonic puns with regard to the evaluation of the three experts translation consensus.

Table (11) shows that the translation of the homophonic pun example number 3 which is:

دبري الأمر نهارا واطلبي الحق جهارا

"Make preparations in daylight

And call aloud of what is right"

The previous line had been evaluated according to the experts and translated among the (30) M.A. students of translation who succeeded in translating this verse according to them which comes first in this domain with percentage of (63.62%) and that reveals high in accuracy and reliability, however it also shows that absolute pun example 4 as stated:

خلُّفني أبكي عهد الهوى

خلعت من ملكي عرشي هوى

"He left me mourn

the era of passion

I was deprived of my property

My throne fell down"

The previous line had been translated and gained the lowest order with a percentage of (45.97%) which reveals low in accuracy and reliability.

Overall, the whole domain is translated among the students of master degree of translation with a total average mean (2.67) and accuracy and reliability percentage of (53.40%).

Most of the participants try to translate the homophonic puns words keeping the rhymes of the homophonic words be sounded the same, but they compensate as much as possible with other equivalent in Arabic that are fit, because they are familiar with certain synonyms of words that cannot have the same intonations at all, but still have the meaning delivered.

3. Tautology التكرار

The sample of the study has translated the given verses of tautology and Table (12) shows in Appendix (E) the means, standard deviation, percentage and order of the attempted translation of a selected example of tautology with regard to the evaluation of the three experts translation consensus.

Table (12) shows that the translation of the tautology of example number 4as stated:

يا طيور الوادي غليل فؤادي كان يشفيه برد تلك الظلال

"Oh birds of the valley, the anger is in my heart

Used to be lessened by the coolness of these shadows"

The previous line had been evaluated according to the experts and translated among the (30) students who succeeded in translating this verse according to them which comes first in this domain with percentage of (64.38) and that reveals high in accuracy and reliability, however it also shows that tautology example 1as mentioned:

موطني ، موطني الجلال والجمال والسناء والبهاء في رباك

"Oh my home, oh my home

glory, beauty

Splendor and magnificence

Are in your hills "

The previous line had been translated and gained the lowest order with a percentage of (54.13%) but still shows a mild stage in accuracy and reliability.

Overall, the whole domain is translated among the students of master degree of translation with a total average mean (3.01) and accuracy and reliability percentage of (60.25%), accordingly, this domain had gained the highest marks in evaluation among the all domains which surpasses the absolute and homophonic puns.

I find that the translation of tautology can be much easier for translators since there are repetition of words and phrases which gives musical intonation to the whole part of the poem, as most participants show paralleled use of tautology words and phrases in their translation.

4.2 Statistics of MT of Puns and tautology

I had presented the selected examples of tautology and homophonic punson the hand of experts to measure the accuracy and reliability of machine engines for translating the tautology and puns of Ibrahim Togan's poetry, the sample of MT consists of Google Translate, Bing Translate, Babylon Translate, after that the translated poetries was introduced to be measured for accuracy and reliability according to the consensus that has been reached of the correct translation of the poetries. So, I state every domain as follows:

1. Absolute puns الجناس التام

The sample of the study of machine systems has translated the given verses of absolute puns, Table (13) shows in Appendix (E) the means,standard deviation, percentage and order of the attempted translation of absolute puns via MT altogether (Google Translate, Bing Translate, and Babylon Translate) with regard to the evaluation of the three experts translation consensus.

Table (13) shows that the translation of the absolute pun number (2)goes as:

لو تعدّى لُجّة البحر به خاض في لُجّة دمع مُسبل

"If he crossed the abyss of the sea with him, he would plunge into the abyss of spilled tears."(Google Translate).

"If he crossed the sea with it, he would fight in the face of a tear." (Bing Translate).

" If he crossed the face of the sea with him, he fought in the face of a spilled tear." (BabylonTranslate).

The previous line had been translated among the threemachine translation engines according to the experts had failed to have accurate translation of the

underlinedabsolute punwords with percentage of (36.71%) of accuracy and reliability and that reveals low in accuracy and reliability, however the table also shows absolute pun example number1as stated:

بلفور يومك في السماء عليك صاعقة السماء

"Balfour your day in the sky,you have to lighten the sky." (Google Translate).

"Balfour Your Day in the Sky,you'll Stun The Sky." (Bing Translate).

"Balfour, your day in the sky, you'll have to stun the sky." (Babylon Translate).

The previous line had been evaluated and gained the lowest order in this domain with a percentage of (26.45%), and means of (1.53), showing the lowest mark inthe whole domain.

Overall, The whole domain is translated poorly among the three machine engines and had degree of translation with a total average means of (1.53) and accuracy and reliability percentage of (30.69%).

MTs show weakness in translating absolute puns words, I relate this to the literal translation which can damage the whole meaning of puns which theMTs are suffering when translating absolute puns, that may resulted from the poor programming issue related to the glossaries and literature dictionaries which most of them are using at the time of conducting this study.

2. Homophonic pun الجناس الناقص

The sample of the study has translated the given verses of homophonic puns and Table (14) shows in Appendix (E) the means, standard deviation, percentage and order of the attempted translation of homophonic puns with regard to the evaluation of the three experts translation consensus.

Table (14) shows that the translation of the homophonic pun number 3 goes as:

يا محتفين بابن عمي قدري إن أنا قصرت فهذا عذري

"Oh, my cousin, my fate. If I fall short, that's my excuse." (Bing Translate).

"O you who celebrate my cousin, my destiny. If I fall short, this is my excuse."(Google Translate).

"Oh, my cousin, my fate. If I fall short, that's my excuse." (Babylon Translate).

The previous line had been evaluated according to the experts and translated among the three machine engines which most of them failed to translate and have a coherence meaning with correlation of the same verse, so in translating this verse according to them which come first in this domain has a percentage of (35.27%) and that reveals a poor percentage in accuracy and reliability, this Table also shows that absolute pun example 5stated as:

حب الظهور على ظهور الناس منشأه الغرور

"The love of appearing on the backs of people is the origin of vanity" (Google Translate).

The love of appearing on people's backs is the origin of vanity."(Bing Translate).

The love of appearing on people's backs originates in vanity."(BabylonTranslate).

The previous line had been translated and gained the lowest order with a percentage of (25.01%) which reveals low in accuracy and reliability.

Overall, the whole domain is translated among the three machine translation engines with a total average mean (1.46) and accuracy and reliability percentage of (29.11%).

I expect MT of homophonic puns can be the same of the absolute puns, the misuse of the right equivalent from Arabic to English may be of the absent of the written diacriticsof the Arabic language which must be used in order not to divert the meaning in English into other unwanted meanings.

3. tautology التكرار

The sample of the study has translated the given verses of tautology and Table (15) shows in Appendix (E) the means, standard deviation, percentage and order of the attempted translation of a selected example of tautology with regard to the evaluation of the three experts translation consensus.

Table (15) shows that the translation of the tautology number 2states as:

اخسأ بوعدك، ان وعدك، دونه رب القضاء

"Ignore your promise, for your promise is without the Lord of Judgment" (Google Translate).

"Keep your promise, if your promise, without him, the Lord of justice."(Bing Translate).

"Lose your promise, if you promise, the Lord of the judiciary will not."(Babylon Translate).

The previous line had been evaluated according to the experts and translated among the three machine engines with a percentage of (36.40) and that reveals low in accuracy and reliability, however it also shows that tautology example 1goes as:

موطني ، موطني،الجلال والجمال والسناء والبهاء في رباك

"My home, my home of majesty and beauty and splendor and splendor in Rabak." (Google Translate).

" My Homeland, My Home Majesty and Beauty, The Year and the Splendor in Your Confusion." (Bing Translate).

" My homeland, my homeland of majesty, beauty, bliss and pomp in your head." (Babylon Translate).

The previous line had been translated and gained the lowest order in this domain with a percentage of (28.42%).

Overall, the whole domain is translated among the three MT engines with a total average mean (1.54) and accuracy and reliability percentage of (30.88%), hence, MT domain had gained the lowest statistics compare to HT, and this shows according to the previous domain, a malfunction of MT engines in translating puns and tautology words, and a default of keeping the coherence and correlation of the whole verse.

I must say that machine sample of the study cannot understand the importance of separating words and phrases of tautology, it is noticed that MT join all the parts altogether and translate them as one piece, which weakens the translation, and make it difficult to convey the meaning correctly.

4.3 Result of the question of the study

The answer of the main question: Are there any differences between MT and HT with regard to the rendition of puns in Ibrahim Tugan's poetry ?

Every domain in the study is compared to MT and HT to find out if there are any differences between MT and HT, so as to answer the main question of the study, I used (T. Test).

Table (16) shows in Appendix (E) that the computed T value is less than T in the table in all domains and the total score. This means that there are statistically significant differences due to HT variable, so the hypothesis of the study shows that there are differences between MT and HT with regard to the rendition of puns and tautology in Ibrahim Tugan's poetry in favour to HT.

The result of this study coincides with the result of both studies of Abdi, (2021) and Zhao, S. (2021) which shows that HT should always been attained in translating literature and not depend on the MT for making this job perfectly.

I find this result tip the balance to human translation, since the humans' ability to translate puns and tautology surpasses that of the MT which deficit the coherent and correlation of meanings in translating literary works.

Chapter five

Summary and recommendation

5.1 Summary

As suggested from the title of this theses, this study has tried to draw distinction between MT and HT by shedding light on the quality of each one. The focus has been on agreement accuracy and reliability of the outcome in translation of puns and tautology of Ibrahim Togan's poetry. The study shows the importance for translators not to depend entirely on MT using (Google Translate, Bing Translate or Babylon Translate) engines when it comes to translate poetic works from Arabic to English, since the findings of the comparison made of Human translation to Machine translation of puns and tautology in Ibrahim Togan's poems had shown lack of accuracy in translating some puns and tautological words using MT.

On the other hand, this study builds an understanding of how translation of humans can be employed in deciphering the real meaning of the puns words, It is a combination of the relevance theory which suppose the understanding of the utterance to know the speaker's communicative and informative intentions which is the role of the translators to search for (Wilson and Sperber, 2008). Besides, deconstruction theory which supposed the structures as an organized entity, considering the referential meaning and the connotative meaning which leads to some problems to translators whenever translating puns in poetry.

There is one main research question, namely:

Are there any differences between MT and HT with regard to the rendition of puns in Ibrahim Tugan's poetry ?

5.2 Findings of the study

The findings of data analysis provide the following responses to the earlier posed question:

1. The result of the analysis of the questionnaire shows that HT of puns (absolute and homophonic) and tautology words of Ibrahim Togan's poetry can be reliable and accurate compared to the MT.
2. MT engines i.e. (Google Translate, Bing Translate and Babylon Translate)should have a huge literary glossaries about the TL especially puns and tautological words.
3. The M.A. translation students were confused of some puns because they resorted to the surface meaning.
4. Because the M.A. translation students were not exposed to all of the poetry, they were faced with various complexities of meaning and were unable to translate some of the pun words, thus, full context should be provided.
5. The MT of (proper or common nouns) are translated into literal equivalent in English, e.g. (قـدري)which is a proper noun was translated (my destiny) by MT and that is incorrect.

In general translation of puns (absolute and homophonic) and tautology shows preference to HT more than MT due to human ability to figure out the deep meaning of puns and tautology.

5.3 Recommendation

From the previous results the researcher found a number of recommendation:

1. MT engines should be developed by their own operators to enrich their systems and glossaries with literary words and idioms. So this study assures for programmers to sustain developing these engines -regarding to the findings of this study- with puns and tautology words correctly, keeping on their own

consideration the correlation and meaning of the whole context of the poem.

2. MT engines developers should refer the noun of person to its equivalent in Arabic correctly.
3. Humans should not depend fully on the translation of puns and tautology using MT, the latter may fail to convey the meaning correctly and make these translations embedded with mistakes, consequently, expert translation is sought for the correct translation of puns and tautology.

References

Abdi, H. (2021). Considering Machine Translation as an Aid or a Threat to the Human Translator, Journal of Translation and Language Studies, ISSN:2709-5681

Abu-Al-Sha'r, A. M., &AbuSeileek, A. F. (2013). Advancement in productivity of Arabic into English Machine Translation Systems from 2008 to 2013, 8(9), 525-538.

Akeel, M & Mishra, R. (2014). ANN and Rule Based Method for English to Arabic Machine Translation. The International Arab Journal of Information Technology, 11(4), 396-405.

Alfohili, Alaa Mohammed (2021) A Comparative Study of the Translation Output of Three Machine Translation Systems, Master's Degree in English Language Curricula and Instruction Al-Bayt University,p8.

Alqudsi, A., Omar, N., & Shaker, K. (2014). Arabic machine translation: a survey. Artificial Intelligence Review, 42(4), 549-572.

Al-Samawi, A.(2014). Language Errors in Machine Translation of Encyclopedic Texts from English into Arabic: the case of Google Translate, Arab World English Journal, Special Issue on Translation, (3), 121-182.

Ammon, U. (2010). World languages: Trends and futures. The handbook of language and globalization, 64, 101-122.

Aristotle. The art of rhetoric. (2008). (John Henry Freese, Trans). USA: Harvard University Press. (Original work was published in 1939).

Ashraf, N.(2015). Machine Translation Techniques and their Comparative Study, International Journal of Computer Applications, 125(7), 25-31.

Babylon (accessed 11-1-2023). About Babylon translation, https://www.babylon-software.com/about/

Barree, R. D., V. L. Barree, and D. P. Craig. (2009). Holistic fracture diagnostics: consistent interpretation of prefrac injection tests using multiple analysis methods. SPE Production & Operations 24 (3): 396-406.

Boboev, Tok. Fundamentals of literary studies.- Tashkent: Uzbekistan, 2002. – 434-435 Betler.

Bryson, Bill (1999). The Mother Tongue: The English Language. Penguin Books. P.75 ISBN 978-0-14-014305-8.

Castilho, S., Doherty, S., Gaspari, F., &Moorkens, J. (2018). Approaches to Human and Machine Translation Quality Assessment.

Chengming, Zhang Li (2004). Advertisement in English Translation Skills. Shandong Normal University:Shandong University press.

Cohen, J. (1988). Statistical Power Analysis for the Behavioral Sciences (2nd ed.)

Crews-Anderson&Timothy A. (2007). Critical thinking and informal logic. Penrith: Humanities-Ebooks. ISBN 978-1-84760-046-2. OCLC 697474252

Crystal, David (2004). A Dictionary of Linguistics and Phonetics.. Cambridge: Cambridge University press.

Derrida, J. (1978). Writing and difference. USA: Chicago: The University of Chicago press.

EAMT European Association for machine translation, retrieved 22-8-2022 https://eamt.org/what-is-machine translation/#:~:text=Machine%20translation%20(MT)%20is%20the,one%20natural%20language%20to%20another.

Elmadany Abdel Rahim, Abdul-Mageed Muhammad, Nagoudi El MoatezBillah (2021) Investigating Code-Mixed Modern Standard Arabic-Egyptian to English Machine Translation, Natural Language Processing Lab, The University of British Columbia

Gibbs, R. W. (1994). The Poetics of Mind: Figurative thought, language, and understanding, Cambridge: Cambridge University Press.

Gray, Martin (1984). A Dictionary of Literary Terms. London: Longman Group Ltd.

Guttman, L. (1944). A basis for scaling qualitative data. American Sociological Review, 9, 139–150

Habash, N., & Sadat, F. (2006). Arabic preprocessing schemes for statistical MT. In Proceedings of the Human Language Technology Conference of the NAACL, Companion Volume: Short Papers (pp. 49-52).

Hadla, L. S., Hailat, T. M., & Al-Kabi, M. N.(2014). Evaluating Arabic to English MT, International Journal of Advanced Computer Science and Applications, 5(11), 68-73.

Hatim, B., &Munday, J. (2004). Translation: an advanced resource book. London: Routlege.

Herrick, J. A. (2005). The history and theory of rhetoric: an introduction. 3rd version. Pearson Education, Boston.

Hutchins, J. (2001). MT and HT: in competition or in complementation. International Journal of Translation, 13(1-2), 5-20. introduction. New York: Allyn and Bacon.

Hutchins, J. (2005). "The history of MT in a nutshell"

Jalal, A., Uddin, M. Z., & Kim, T. S. (2012). Depth video-based human activity recognition system using translation and scaling invariant features for life logging at smart home. IEEE Transactions on Consumer Electronics, 58(3), 863-871.

Keach, W. (2004). Arbitrary Power: Romanticism, Language, Politics. Princeton: Princeton University Press.

Lee, J.(2011). A Comparative Study of HT and MT with Post-editing, Compilation & Translation Review, 4(2), 105-149.

Leech, Geoffrey N. (1969). A Linguistic Guide to English Poetry. London: Longman Group Ltd.

Literary terms, (last visited: 31-1-2022) website link: https://literaryterms.net/pun/

Lucas, T. (2004). Deciphering the meaning of puns in learning English as a second language: a study of triadic relationship. (Unpublished PhD Thesis). USA, Florida State University

Memsource, (last visited, 31-1-2022) website link https://www.memsource.com/machine-translation/

Nida, E.A. (1964). Towards a science of translating. Leiden: E.J Hall. Robinson, D. (2002). Western translation theory: from Herodotus to Nietzsche. Manchester. Jerome publishing.

Pomorska, K. al. (Ed.). (1987). Language, Poetry and Poetics. Amsterdam: Mouton.

Popel, M., Tomková, M., Tomek, J., Kaiser, Ł., Uszkoreit, J., Bojar, O., &Žabokrtský, Z. (2020). Transforming MT: a deep learning system reaches news translation quality comparable to human professionals. Nature Communications, 11.

Seljan, S., Dunder, I., &Pavlovski, M. (2020). Human Quality Evaluation of MT Poetry. 2020 43rd International Convention on Information, Communication and Electronic Technology (MIPRO), 1040-1045.

Selzer, J. (2004). Rhetorical Analysis: Understanding How Texts Persuade Readers. In C. Bazerman& P. Prior (Eds.), *What Writing Does and How It Does It: An Introduction to Analyzing Texts and Textual Practices* (pp. 279-308). Mahwah, NJ: Lawrence Erlbaum.

Stevanović, I.(2020). comparative Analysis of Machine Translation Systems, International Journal of Computer Applications, 136(1), 66-75.

Stuart. Sim (1987) DECONSTRUCTING THE PUN, The British Journal of Aesthetics, Volume 27, Issue 4, AUTUMN, Pages 326–334

Taravella, A., & Villeneuve, A. O. (2013). Acknowledging the needs of computer-assisted translation tools users: the human perspective in human-MT. The Journal of Specialised Translation, 19(January), 62-74.

Thomas, Stehpen F. (1992). The implications of translation theories for language teaching pedagogy. A thesis submitted for the degree of dotor of philosophy, Univeristy of London.

Ulatus(accessed 11-1-2023) Translation Made Simple:The Usefulness of Translation Apps, https://www.ulatus.com/translation-blog/most-globally-used-translated-apps/

Waldoff, L. (2001). Wordsworth in His Major Lyrics: The Art and Psychology of Self- Representation. Colombia: Missouri Press University.

Ward, G. L. & J. Hirschberg, (1991). A Pragmatic Analysis of Tautological Utterances. Journal of Pragmatics, 15, 507-520.

Wilson, D. and Sperber, D. (2008). Relevance Theory, in The Handbook of Pragmatics. (eds L. R. Horn and G. Ward), Blackwell Publishing Ltd, Oxford, UK.

Wu, Y., Schuster, M., Chen, Z., Le, Q. V., Norouzi, M., Macherey, W.,... & Dean, J. (2016). Google's neural MT system: Bridging the gap between human and MT. arXiv preprint arXiv:1609.08144.

Wu, Yonghui, Schuster Mike Chen, Zhifeng, Quoc V. Le, Mohammad Norouzi (2016) Google's Neural MT System: Bridging the Gap between Human and MT.

Zhao Shengfang (2021) post-editing neural MT versus HT for Chinese essays: a pilot study, Henan University Minsheng College, Kaifeng, China.

Arabic references

السيد، عز الدين علي (1896). التكرير بين المثير والتأثير. ط2 بيروت: عالم الكتب.

العلوي، يحيى ابن حمزة (1914). الطراز المتضمن لأسرار البلاغة وعلوم حقائق الإعجاز. تحقيق السيد بن علي المرصفي. ج3 .القاهرة: دار الكتب الخديوية.

Appendices

Appendix (A)

Panel of Specialists

Name	Job
Nabil Alawi	Al-Najah National University
Sufian Abu Ara	Al-Najah National University
Ekrima Shehab	Al-Najah National University

Appendix (B)

The questionnaire

An-Najah National University

Faculty of Graduate Studies

Dear Sir/Madam,

I am a student from An-Najah University, doing my MA study entitled " A Comparative Study of Human versus Machine Translation of Some Rhetorical Devices: Puns and Tautology in Ibrahim Togan's Poetry"

I have selected some verses of Ibrahim Togan's poetry from various poems that have some rhetorical devices, such as tautology and puns. Your translation will be examined and then compared to MT.

Kindly, would you please attend to the following test by translating these verses?

Your identity is going to be anonymous, and the overall data will be confidential as your translation would be analyzed only for scientific purposes.

Thank you for your participation.

Good Luck.

Translate these poetries from Arabic into English

1. بلفور يومك في السماء عليك صاعقة السماء

……..……..……

2. لو تعدّى لُجّة البحر به خاض في لُجّة دمع مُسبل

……..……..……

3. أنا ساعة الرجل العتيد أنا ساعة البأس الشديد

……...……

4. هو يا روحي لروحي كالندي للنرجس

……..……..……

5. وفلسطين لن تبقى ضحية قبل أن تذهب النفوس ضحية

……..……..……

6. يا سراة البلاد يكفي البلادا ما أذاب القلوب والأكبادا

……...……

7. دبري الأمر نهارا واطلبي الحق جهارا

……...……

8. يا محتفين بابن عمي قدري إن أنا قصرت فهذا عذري

……

9. خلُّفني أبكي عهد الهوى خلعت من ملكي عرشي هوى

.....

.....

10. حب الظهور على ظهور الناس منشأه الغرور

.....

11. موطني ، موطني الجلال والجمال والسناء والبهاء في رباك

.....

12. اخسأ بوعدك ، ان وعدك، دونه رب القضاء

13. اخسأ بوعدك، لن يضير الوعد شعبا هبّ ناهض

.....

.....

14. يا طيور الوادي غليل فؤادي كان يشفيه برد تلك الظلال

15. يا طيور الوادي رزايا بلادي مزجت لي الغناء بالإعوال

.....

.....

انتهت الأسئلة

Appendix (C)

Panel of translation experts

Name	Job
Prof. Hassan Ali Abu Jarad	Gaza University
Prof. Jamil Yousef Al-Asmar	Palestine University
Dr. Marwan A. M. Hamdan	AL-Azhar University- Gaza

Appendix (D)

Consensus of translation experts on the translation of puns and tautology

An-Najah National University

Faculty of Graduate Studies

Dear Sir/Madam,

I am a student from An-Najah University, doing my MA study entitled " A Comparative Study of Human versus Machine Translation of Some Rhetorical Devices: Puns and Tautology in Ibrahim Togan's Poetry"

I have selected some verses of Ibrahim Togan's poetry from various poems that have some rhetorical devices, such as tautology and puns. Your translation will be examined and then compared to MT.

Kindly, would you please attend to the following questionnaire by translating these verses?

Your identity is going to be anonymous, and the overall data will be confidential as your translation would be analyzed only for scientific purposes.

Thank you for your participation.

Good Luck.

Translate these poetries from Arabic into English

1. بلفور يومك في السماء عليك صاعقة السماء

Belfour, you will have a day of judgment in heaven

May thunderbolt from the sky strikes you down

2. لو تعدّى لُجّة البحر به خاض في لُجّة دمع مُسبل

If he could pass through that tumultuous sea with it,

He would find himself wading in tumultuous pouring tears

3. أنا ساعة الرجل العتيد أنا ساعة البأس الشديد

I am the destined hour of steadfast man

I am the destined hour of impervious strength

4. هو يا روحي لروحي كالندي للنرجس

It is to my soul, oh my soul

A dew to narcissus

5. وفلسطين لن تبقى ضحية قبل أن تذهب النفوس ضحية

And Palestine will not remain a victim

So long as we sacrifice our souls

6. يا سراة البلاد يكفي البلادا ما أذاب القلوب والأكبادا

Oh you upper-class of the country, the country has had enough

Of what melts our hearts and livers

7. دبري الأمر نهارا واطلبي الحق جهارا

Make preparations in daylight

And call aloud of what is right

8. يا محتفين بابن عمي قدري إن أنا قصرت فهذا عذري

Oh you who are celebrating my cousin, Qadri

If I fall short, here is my excuse

9. خلُّفني أبكي عهد الهوى

خلعت من ملكي عرشي هوى

He left me mourn

The era of passion

I was deprived of my property

My throne fell down

10. حب الظهور على ظهور الناس منشأه الغرور

To desire to attract attention over other's back is the source of arrogance

11. موطني ، موطني الجلال والجمال والسناء والبهاء في رباك

Oh my home, oh my home

glory, beauty

Splendor and magnificence

Are in your hills

12. اخسأ بوعدك ، ان وعدك، دونه رب القضاء

13. اخسأ بوعدك، لن يضير الوعد شعبا هبّ ناهض

Lie in disgrace with your promise

For the god of judgment is above (the authority) of your promise

Lie in disgrace with your promise

For the promise cannot harm a people who rise against it

14. يا طيور الوادي غليل فؤادي كان يشفيه برد تلك الظلال

15. يا طيور الوادي رزايا بلادي مزجت لي الغناء بالإعوال

Oh birds of the valley, the anger is in my heart

Used to be lessened by the coolness of these shadows

Oh birds of the valley, the calamities of my country

Have mixed for me songs with wailing

Appendix (E)

Tables

Table (11)

Means, Deviation, percentage of HT of homophonic puns

Absolute puns	means	Dev.	Percentage	Order
H.P. 1	2.69	0.43	53.89	3
H.P. 2	2.81	0.27	56.18	2
H.P. 3	3.18	0.29	63.62	1
H.P. 4	2.30	0.31	45.97	5
H.P. 5	2.37	0.27	47.35	4
Sum	2.67	0.18	53.40	

Table (12)

Means, Deviation, percentage of HT of tautology

Absolute puns	means	Dev.	Percentage	Order
T. 1	2.71	0.34	54.13	5
T. 2	3.21	0.46	64.14	2
T. 3	2.75	0.33	54.97	4
T. 4	3.22	0.31	64.38	1
T. 5	3.18	0.25	63.60	3
Sum	3.01	0.19	60.25	

Table (13)

Means, Deviation,. percentage of MT of absolute puns

Absolute puns	means	Dev.	Percentage	Order
A.P. 1	1.32	0.32	26.45	5
A.P. 2	1.84	0.44	36.71	1
A.P. 3	1.53	0.37	30.54	3
A.P. 4	1.35	0.32	26.98	4
A.P. 5	1.64	0.39	32.78	2
Sum	1.53	0.37	30.69	

Table (14)

Means, Deviation, percentage of MT of homophonic puns

Absolute puns	means	Dev.	Percentage	Order
H.P. 1	1.48	0.35	29.54	3
H.P. 2	1.49	0.36	29.77	2
H.P. 3	1.76	0.42	35.27	1
H.P. 4	1.30	0.31	25.97	4
H.P. 5	1.25	0.30	25.01	5
Sum	1.46	0.35	29.11	

Table (15)

Means, Deviation, percentage of machine translation of tautology

Tautology	means	Dev.	Percentage	Order
T. 1	1.42	0.34	28.42	5
T. 2	1.82	0.44	36.40	1
T. 3	1.45	0.35	29.02	4
T. 4	1.76	0.42	35.28	2
T. 5	1.75	0.42	35.05	3
Sum	1.64	0.39	32.84	

Table (16)

Means, standard deviation, t value, sig. value and sig. levelof all domains

variable	Translation	N	Mean	Std. Deviation	t	sig. level
absolute pun الجناس التام	HT	30	2.83	0.18	10.69	sig. at 0.01
	MT	3	1.53	0.37		
homophonic pun الجناس الناقص	HT	30	2.67	0.18	10.12	sig. at 0.01
	MT	3	1.46	0.35		
tautologyالتكرار	HT	30	3.01	0.19	10.93	sig. at 0.01
	MT	3	1.64	0.39		
mean	HT	30	2.84	0.17	11.41	sig. at 0.01
	MT	3	1.54	0.37		

t Table value at df (31) and sig. level (0.05) = 2.042

t Table value at df (31) and sig. level (0.01) = 2. 75

جامعة النَّجاح الوطنيَّة
كليَّة الدّراسات العليا

دراسة مقارنة بين ترجمة الآلة وترجمة الانسان لبعض الأدوات البلاغية: الجناس والتكرار في شعر إبراهيم طوقان

إعداد
أماني ابراهيم محمد رواجبي

إشراف
د. أيمن نزال

قدمت هذه الرسالة استكمالاً لمتطلبات الحصول على درجة الماجستير في اللغويات التطبيقية والترجمة بكلية الدراسات العليا في جامعة النجاح الوطنية في نابلس، فلسطين.

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د. أيمن نزال

الملخص

تهدف هذه الدراسة إلى مقارنة الترجمة الآلية مع الترجمة البشرية لبعض الأساليب البلاغية للتورية (المطلقة و المتجانسة) و الإسهاب في شعر إبراهيم طوقان. اختارت الباحثة المنهج الوصفي والاستبانة كأداة للدراسة و تكونت العينة من (30) طالب ماجستير في الترجمة و (3) محركات للترجمة الآلية وتشمل (جوجل ترانسليت، بينق ترانسليت، وبابيلون ترانسليت). تظهر نتائج الدراسة أن الترجمة البشرية للتورية (المطلقة و المتجانسة)و الإسهاب في شعر إبراهيم طوقان يمكن الاعتماد عليها مقارنة بالترجمة الآلية، وأن محركات الترجمة الآلية يجب أن تحتوي على مسارد أدبية ضخمة حول الثقافة المستهدفة خاصة الكلمات الأدبية و التورية، وتوصلت الدراسة كذلك إلى أن طلبة الماجستير في الترجمة اختلفوا على بعض كلمات التورية، لذا لجأوا إلى المعاني السطحية.

توصي نتائج الدراسة بضرورة تطوير محركات الترجمة الآلية بواسطة مشغليها لإثراء أنظمتهم ومساردهم بالكلمات والتعابير الأدبية. لذا تؤكد هذه الدراسة على المبرمجين على الاستمرار في تطوير هذه المحركات باستخدام كلمات مناسبة للتورية وكلمات الإسهاب بشكل صحيح، مع مراعاة ارتباطها مع معنى السياق في القصيدة.

الكلمات المفتاحية: الترجمة الالية العصبية، اللغويات المحوسبة، الترجمة البشرية، الذكاء الصناعي، الترجمة الشعرية، جودة الترجمة.