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LEXICAL AND SYNTACTIC CONFUSION IN MACHINE TRANSLATED TEXTS: A RESEARCH PAPER IN LINGUISTICS

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ABSTRACT

Naturally, as language evolves over time, it becomes increasingly challenging for machine translation systems to generate accurate outputs, resulting in less satisfactory performance. Given that translation requires a profound understanding of the subject matter, a thorough knowledge of both cultures involved, an extensive vocabulary in both languages, and adept manipulation of language, it is clear that machine translation systems face significant challenges. The findings reveal the engines are unable to use such strategies to eliminate text ambiguity. They get confused between words meaning for different reasons such as a word conveying more than one meaning, several words that have the same meaning, and the change of a word's meaning according to its context. They also get confused because of the differences between the structures of the English and Arabic languages. Such confusion led to the eruption of the problem of translation ambiguity as shown in the following examples. The study concludes that human intervention is essential for achieving translations free of ambiguity. .

INTRODUCTION

Translation is the initial phase where the translator analyzes the source text, breaking it down into semantic constructs. Subsequently, the translator attempts to reconstruct these semantic constructs in appropriate forms of the target language, aiming to generate an equivalent text in the receptor language (Larson, 1998, P. 519, as cited in Gutiérrez, 2018). According to this definition, the translator works between the source and target texts, with the task of transitioning between two languages to discover translations for each construction from the source text that effectively preserves the original meaning in the target text. Nevertheless, the translation process is more intricate, involving complex procedures and nuanced aspects of both conscious and unconscious learning, going beyond a simplistic view of translation (Larson 1998, P. 519, Robinson 2003, P.49, as cited in Gutiérrez, 2018).

Technological advances has played a significant role in translation processes, which are implemented and utilized through translation engines. These processes are commonly referred to as machine translations. Machine Translation (MT) falls under the domain of Artificial

Intelligence (AI). It is designed to convert text from one language, referred to as the source language, into the text of another language, known as the target language. It serves as a tool for overcoming language barriers in a multilingual context. The main concern of this study is to investigate and identify the various types of lexical ambiguity in machine translation outputs.

2. Machine Translation

Machine Translation refers to the use of computers to translate texts automatically from one language to another. This field has a remarkable place among the fields of Translation Studies. Systems of machine translation produce an output based on previously learned codes. However, a system is more likely to have errors as a whole output could be nonsensical because of grammatical errors; wrong, misplaced, or missing words. Thus, the output cannot be submitted as it is but it can be used to help a human translator within the process. MT is mainly used for Assimilation and Dissemination. Assimilation is about helping readers to grasp the meaning of a text even if it has grammatical mistakes. The important thing is to comprehend the essence of the text. Dissemination is about producing an output as correct as possible that it requires less effort to post. This is needed when a translation of a text is to be published. (Brandt, 2011)

3. Translation Online Tools

The phrase "translation tools" refers to computer software crafted with the primary purpose of aiding in the translation of digital content. These encompass software created to assist translators, primarily in the form of translation memories, as well as software aimed at helping businesses and institutions have their content translated, such as translation management systems and content management systems. It also includes software intended to assist computer users in comprehending foreign content they find unfamiliar, through machine translation.

In the current study, we will utilize the following examples of machine translation systems:

3.1. Google Translation

Google Translate, introduced by Google in April 2006, is a web-based translation service that is freely accessible to users. It can translate various types of content, including words, phrases, and web pages. Initially, Google Translate operated as a statistical machine translation (SMT) service. This meant that the input text had to undergo translation into English before being translated into the chosen target language. However, because SMT relies on predictive algorithms for translation, it often produces translations with less-than-ideal grammatical accuracy. Despite this limitation, Google didn't initially hire experts to address this issue, citing the constantly evolving nature of language as a factor.



3.2. Reverso Translator

Reverso is a French company specializing in AI-driven language tools, translation assistance, and language-related services. Since its inception in 1998, the company's primary goal has been to provide online translation and linguistic resources to both corporate and mass markets. In 2013, the company introduced Reverso Context, a bilingual dictionary tool leveraging big data and machine learning algorithms.

3.3. Microsoft

Microsoft Translator is a cloud-based machine translation service provided by Microsoft. It is part of Microsoft Cognitive Services and is seamlessly integrated into various consumer, developer, and enterprise products. These include Bing, Microsoft Office, SharePoint, Microsoft Edge, Microsoft Lync, Yammer, Skype Translator, and Visual Studio, as well as dedicated Microsoft Translator applications for Windows, Windows Phone, iPhone, Apple Watch, Android phones, and Android Wear.

4. Lexical and Syntactic Ambiguity

According to Leech (1981), "an expression is said to be ambiguous when more than one interpretation can be assigned to it" (leech, 1981, p.30 as cited in Rohmaniah, 2017). The term "Ambiguity" refers to a situation where a word, phrase, or sentence has more than one possible interpretation or meaning. This can occur for a variety of reasons, including homophones (words that sound the same but have different meanings, for example, the words "**There**," "**Their**," and "**They're**" sound identical when spoken but have distinct meanings and uses in sentences as **There**: refers to a place; **example**: "Put the book over there," **Their**: is a possessive pronoun; **example**: "Their car is parked outside," and **They're**: is a contraction of "**they are**;" **example**: "They're going to the park."), homonyms (words that are spelled the same but have different meanings, for example, the word "**Bark**" means "The outer covering of a tree" as in "The bark of the tree is rough;" it also means "The sound that a dog makes". It has the same spelling and pronunciation in both contexts. Still, it refers to different things), polysemous words (words that have multiple related meanings, for example, the word "**Book**" could refer to **A written work**: **Example**: "She read a book about history," **Reserve or arrange**: **Example**: "I need to book a hotel room." It has different meanings that are conceptually related), and syntax (the arrangement of words and phrases in a sentence).

4.1. Lexical Ambiguity

As a symbol of communication, each word of language must correspond to a certain function or meaning. However, due to the finiteness of English symbols and the infinite nature of things, the language cannot perform its communicative functions smoothly when the symbol is the only one. In this way, polysemy, which means a word has multiple meanings, appears, and has a tendency to expand. This is the result of people constantly giving words new meanings in the long-term development of the language. When two or more different meanings of a polysemous word are both valid in the same sentence, resulting in the non-



unique referent, ambiguity arises (Dai, 2021). Lexical ambiguity is a type of ambiguity that arises from the multiple meanings of words. It occurs when a word has more than one meaning or sense, and the context in which it is used does not make clear which meaning is intended. For example, the word "watch." It can refer to a timepiece worn on the wrist, or to the act of observing something. If someone says "I'm going to watch the movie," it is unclear whether they mean they will observe the movie or look at their watch to see what time it is. Lexical ambiguity can cause confusion and misinterpretation, particularly in spoken language where there are no visual cues to help clarify meaning.

4.2. Syntactic Ambiguity

Syntactic ambiguity means that the structure of a sentence can be analyzed differently, that is, the components of the sentence have different ways of combinations, which results in ambiguity. Therefore, syntactic ambiguity is also called structural ambiguity (Dai, 2021). Syntactic ambiguity is a type of ambiguity that arises from the structure or grammar of a sentence, rather than from the meanings of individual words. It occurs when a sentence can be parsed or interpreted in more than one way, leading to confusion or ambiguity. For example, consider the sentence "I saw the man with the telescope." This sentence is syntactically ambiguous because it is not clear whether the speaker saw the man using the telescope, or whether the speaker saw the man who had the telescope. Another example of syntactic ambiguity is the sentence "The chicken is ready to eat." This sentence can be interpreted in two different ways: either the chicken is ready to be eaten, or the chicken is ready to eat something else. Syntactic ambiguity can cause confusion and misinterpretation, particularly in written language where there are no visual cues to help clarify meaning. To avoid syntactic ambiguity, it is important to use clear and precise language and to be aware of the potential for multiple interpretations of a sentence. In some cases, it may be necessary to rephrase a sentence or to provide additional context to ensure that the intended meaning is clear.

5. Equivalence Theory

5.1. Mona Baker's typology of equivalence

Baker (2004) suggests that the concept of equivalence poses a challenge due to its circular nature. This circularity arises from defining translation in terms of equivalence and evaluating translation quality based on equivalence. Nevertheless, Baker emphasizes the significance of this notion due to its interconnectedness with other theoretical concepts in the field of translation. One such concept is faithfulness to the original, which is connected to the desirability of achieving equivalence. Additionally, the notion of "shift," commonly discussed in normative approaches, relies on the assumption of equivalence, which may or may not be realized. "Shift" postulates the existence of an "invariant," representing the degree of proximity to achieving equivalence in translation, and invariants should remain unaffected by shifts during the translation process (Baker, 2004). Another related concept is the "translation unit," which pertains to determining the equivalent units (such as words, clauses, phrases, or



sentences) that translators work with to produce an "equivalent" version of the source text (Baker, 2004). Baker concludes that the notion of equivalence should not be discarded or undermined because it is crucially intertwined with other theoretical aspects of translation. However, an important question arises regarding which perspective of equivalence should be considered the most appropriate in translation, as there are various perspectives available. Equivalence can be understood as a semantic category, with the equivalence effect, or in terms of functional equivalence (Baker, 2004 as cited in Abdelal, 2020).

6. Research Questions

1. In what way can the product of the translation engine syntactically expose the cultural characteristics of the source language and the target language?
2. What is the type of ambiguity that arises from translating colloquial terms?
3. In what way does machine translation bridge the gaps between the source language and the target language?
4. How can the claim that machine translation substitutes human translation be refuted or proved?

7. Data

The sample used is the speech text of the current Egyptian President, Abdulfattah Al-Sisi, delivered on the occasion of being sworn in as President of Egypt. The primary factor determining the selection of this sample is that it holds an extensive collection of colloquial, cultural, and linguistic expressions and terms that vividly capture the depth and diversity of the Arabic language.

The transcript of the speech was written by the researcher. The word count of the transcript is 4720. The length of the source video is 00:54:48.

Source of Data: <https://www.youtube.com/watch?v=c5z0TuyU-YM&t=156s>

8. Method and Procedures

The researcher uses the qualitative descriptive method to explore the various methods and strategies used in the process of machine translation. Through this method, the researcher describes the specific techniques and approaches of some machine translation tools to transform a text from Arabic to English. The machinetranslated excerpts are subsequently analyzed using Baker's (1992) Equivalence theory. The investigation focuses on analyzing the lexical and syntactic ambiguities that were detected in the translation output.

The data were analyzed based on Baker's (1992) equivalence theory which has categorized different forms of equivalence, encompassing word-level equivalence, equivalence beyond individual words, textual equivalence, and grammatical equivalence. These forms were used to uncover the ambiguities held within a machine translation output.



The text of the speech under analysis is translated with the use of each of the following tools: Google Translate, Reverso, and Microsoft Translator. The researcher inserts the source text into the previously mentioned tools. The translation of each paragraph was analyzed. Then the tool that produced the best translation was determined by assessing the number and types of mistakes that appear in the translation of the text concerning lexical and syntactic ambiguity. Based on the results, the study investigates whether the interference of a human element is needed to fill the gaps within the outputs.

The data were analyzed according to the following procedures:

1. Some excerpts, which are assumed to exhibit ambiguity when translated by online software, are selected.
2. The words or expressions that contain lexical ambiguity are highlighted and compared according to the renderings and the intended meaning of the speaker.
3. For syntactic analysis, the structures which may be ambiguous for the reader are selected.

9. Analysis

This analysis relies on evaluating the output of three online machine translation tools to determine which of them produces a more accurate translation and to detect whether the intervention of a human element is needed to produce an output free of mistakes. The tools that are used to conduct this study are Google Translate, Reverso, and Microsoft Bing Translator. The chosen sample comprises a speech given by the present Egyptian President, Abdulfattah El-Sisi. The key rationale behind selecting this particular text is its rich repository of various colloquial, cultural, and linguistic clauses and terms, which eloquently represent the intricacies and diversity of the Egyptian Arabic language. 10 examples were selected to study the phenomena of lexical and syntactic ambiguity in machine translation from the Arabic language to the English language in both colloquial and standard Arabic. The examples were chosen based on the variety and diversity of cases that lead to these two phenomena.

9.1. Text's Translation and Analysis *Excerpt 1:*

الحقيقة قبل ما أتكم، اسمحولي إن أنا أطلب منكم إن احنا نقف جميعاً عشان نوجه تحية، مش هنقف حداد ولا حاجة، لكن عشان نقف، بعد إنكم؛ نوجه تحية لكل شهداء مصر، لكل شهداء مصر، أنا مش هقول شهداء مصر مين؛ الجيش ولا الشرطة ولا الشعب، لكن هقول كل شهداء مصر، بنقف عشان نقول لأهاليهم: الأم اللي فقدت والزوجة اللي فقدت والابن والابنة اللي فقدت؛ احنا والله ما ناسيينكم، احنا فاكريكم كويس ومش هننساكم أبداً، إحنا موجودين هنا بدم أبناكم إحنا مش ناسيين ده، دي أول إشارة، الإشارة الثانية أنا عايز أوجه تحية لشعب مصر كله، لكل المصريين، اسمحولي إن إحنا نوجهلهم، لكل المصريين، التحية بعد إنكم يعني، اتفضلوا استريحوا

Google's Translation:

The truth, before I speak, allow me to ask you that we all stand to pay tribute. We will not stand in mourning or anything, but to stand, with your permission; We pay tribute to all the martyrs of Egypt, to all the martyrs of Egypt. I will not say who are the martyrs of Egypt; the

army, the police, or the people, but I will say all the martyrs of Egypt, we stand to tell their families: **the mother who was lost**, the wife who was lost, and the son and daughter who were lost; By God, we have not forgotten you. **We remember you well and will never forget you**. We are here for the blood of your children. We have not forgotten this. This is the first sign. The second sign is that I want to extend a greeting to the entire people of Egypt, to all the Egyptians. **Allow me if we address them, to all the Egyptians. The greeting** is with your permission. I mean, please have a rest.

Reverso's Translation:

The truth is, before I speak, if I ask you, we all stand up to pay tribute, we do not stop mourning and there is no need, but to stand up, after your permission; We pay tribute to all of Egypt's martyrs. I do not say the martyrs of Egypt, Maine; the army, the police, the people, but all the martyrs of Egypt, we stand to say to their parents: **the mother who lost**, the wife who lost, the son and the daughter who lost; **We and God are what you have forgotten**. We are your intellectuals, Kwais and Mesh Hensakh. We are here with the blood of your children. I wish to pay tribute to the people of Egypt, to all Egyptians. **Let me refer to the fact that we know them, to all Egyptians, greeting** after your permission means, please rest.

Microsoft Bing's Translation:

The truth is that before I speak, allow me to ask you that we all stand to pay a greeting, not to mourn or need, but to stand, with your permission, we salute all the martyrs of Egypt, to all the martyrs of Egypt. I am not going to say the martyrs of Egypt; the army, the police or the people, but all the martyrs of Egypt, we stand to say to their families: **the mother who lost**, the wife who lost, the son and daughter who lost; This is the first signal, the second signal, I want to greet the whole people of Egypt, to all Egyptians, **allow me to address them, to all Egyptians, greetings** with your permission means, please rest.

Analysis:

Example 1:

الحقيقة

In the original text, the speaker starts his speech with the word "الحقيقة" which is a word that can be used in the Arabic language with a variety of different meanings. The meaning of such a word is indicated according to its place and intonation within the context which exposes it to the problem of Ambiguity. Here, the speaker starts with the word "الحقيقة" to reveal a hidden intention before he starts the expected speech. In English, the word "الحقيقة" can be referred to as 'the truth,' 'the fact,' 'the reality' or many other synonyms. However, in the source text, the intended meaning should be, when transformed into English, translated as 'actually' that is used to reveal information which the three engines failed as they translated it into 'the truth' that is, for instance, used to reveal a hidden secret.

Hence, the translation is lexically ambiguous.

maturity. You have set an example for the entire world in civility and responsibility. You have demonstrated that your ability did not stop at the limits of overthrowing tyrannical or failed regimes, but rather your minds and hands translated it into a true democratic will that was expressed in the ballot boxes for the second time in less than five months. At this historic moment in the life and destiny of our nation, I find my feelings mixed between happiness with your confidence and aspiration to face the challenges and **prove that that confidence was misplaced**. Fearing God Almighty, and hoping for His mercy and help, I pray to Him in every prayer, trusting and not relying, to grant me success and help me to carry out my mission in a way that pleases Him, and to contribute to the elevation of the nation and the fulfillment of the hopes of its people. (It is true that you are confidently saying, "We have approached you." And I am saying, "O Lord, I will live up to this good opinion." I am on that.)

Reverso's Translation:

Brothers and sisters of the great people of Egypt, I do not find words that express my pleasure to you, and I believe in you. My real joy today is the unity and cohesion of the Egyptian people, as much as your political consciousness and your democratic maturity. You have set an example for the entire world of urbanization and responsibility, demonstrating that your ability has not stopped at the limits of dropping authoritarian or failed regimes, but has been translated by your minds and hands into a genuine democratic will expressed at the polls for the second time in less than five months. At this historic moment in our nation's age and destiny, I find my feelings mixed between happiness with your trust and looking to meet the challenges **and proving that that trust was right**. Fear of God Almighty, hope in his mercy and aid, I invite him in every prayer, uncompromising, to help me carry out my mission in a manner that satisfies him, contributes to the advancement of the nation and realizes the hopes of his people. (It's true that you say in your trust and I say, "Oh, God, I can be good at him, about me.")

Microsoft Bing's Translation:

Brothers and sisters, sons of the great Egyptian people, I cannot find words to express my happiness with you, and the sincerity of my belief in you. My real joy today is how united and cohesive the Egyptian people are, as much as your political awareness and democratic maturity. You have set an example for the whole world of civility and responsibility, proving that your ability did not stop at the limits of overthrowing tyrannical or failed regimes, but was translated by your minds and hands into a real democratic will that was expressed at the ballot box for the second time in less than five months. At this historic moment in our nation's life and destiny, I find my feelings mixed between happiness with your confidence and aspiration to meet challenges **and proof that that trust was right**. Fear of God Almighty, and hope in His mercy and help, I pray to Him in every prayer, trusting and not dependent, to help me and help me to perform my mission in a manner that pleases Him, and contributes to the elevation of the country and the realization of the hopes of its people. (It is true that you say in confidence, we have condemned you, and I am by saying, Lord, I will be at this good expectation, about me on that).



Analysis: Example 5:

واثبات أن تلك الثقة كانت في محلا

Google translated the clause "إثبات أن تلك الثقة تئة أئة له حلهة" into "prove that that confidence was misplaced." The use of the word '*misplaced*' altered the meaning of the Arabic sentence to "إثبا ن للا لةةة لم لكن له حلهة". Instead of '*misplaced*,' '*wellplaced*' should have been used, or '*misplaced*' should have been negated as in "was not misplaced" to convey the intended meaning and eliminate the case of lexical ambiguity. **Excerpt 3:**

إن العدة ااجتماعي بين الدولة، ممثلة في كنيسة ااا ومسسا ااا، وبين الشاعب لا يمكن أن يساا اقيم من طكف واحد؛ وإنما يتعين أن يكون التزاماً عل الطكفين فأنا إن لم استجب لكيبكم التي طالبتموني بالكشح لمن، ب كئيس الجاوية لكي أقدم وعوداً بكافة ثم **تفاجئون** بعدها بواقع مخالف ساا الوف نعتد الحقية والم، ااا الكحة مناجاً لتطبي عقدنا ااجتماعي) انا اتفقنا نيق واضاحب وعل نواء، ال مساتمك إن شام الله (وكما ساا انا سام الاطة ع عل حقية ا وضا ع ونشالكك في الجاد والعكي؛ ساوف نجني معاً أيضاً ثماك جادنا وعاوننا اسانقاكا ساا ساياي، و اسانبااباً أمنيأ، ونموا اقت، ادياً تكياً ومنوعاً، و عدالة ااجتماعية، وحقوقاً و حكايات مكفولة للجميع

Google's Translation:

The social contract between the state, represented by its president and its institutions, and the people cannot be established by one party. Rather, it must be an obligation on both parties. If I do not respond to your desire, which asked me to run for the position of President of the Republic, in order to make bright promises, then you will be surprised by a different reality. We will adopt truth and frankness as an approach to implementing our social contract. (We agreed to remain clear and in constant communication, God willing). We will also share knowledge of the reality of the situation and share the effort and sweat; Together, we will also reap the fruits of our efforts and cooperation in political stability, security, rich and diversified economic growth, social justice, and guaranteed rights and freedoms for all.

Reverso's Translation:

The social contract between the State, represented by its President and institutions, and the people cannot be unilaterally based; It has to be an obligation on both sides. If I do not respond to your desire to ask me to run for President of the Republic to make glamorous promises and then surprise with a contrary reality. We will adopt a real and honest approach to the application of our social contract. (We have agreed to remain clear and continue to communicate, if God willing.) We will also share the reality of the situation and share effort and race; Together, we will also reap the fruits of our effort and cooperation, political stability, security, rich and diverse economic growth, social justice, and everyone's rights and freedoms.

Microsoft Bing's Translation:

The social contract between the State, represented by its President and its institutions, and the people cannot be straightened unilaterally; If I do not respond to your desire to run for the post of President of the Republic in order to make bright promises and then you will be

surprised by a contrary reality. We will adopt truth and frankness as an approach to the application of our social contract. (We agreed to remain clear and in constant communication hopefully). Just as we will share knowledge of the reality of the situation and share effort and sweat, we will also reap together the fruits of our efforts and cooperation: political stability, security stability, rich and diversified economic growth, social justice, and rights and freedoms guaranteed to all.

Analysis: Example 6:

ثم تفاجئون

We see that both Google and Microsoft translated the clause "ثم لفاجئو بعدها بواقع"

" in the simple future tense: **"you will be surprised..."** which opposes the speaker's intentions as clear in the original text. The verb should be in the infinitive form to fit the context and give the correct meaning as in **"then surprise you with..."**.

We notice that the structure of Reverso's translation of this clause **"then surprise with a contrary reality"** consists of the correct infinitive form but the subject of the sentence is omitted. Thus, the outputs of the three engines are syntactically ambiguous.

Excerpt 4:

أبنام م، الككام، إن ثوكنينا المجيدتين في الخامس والعشاكين من ينايك والثنتين من يونيو قد مادتا الطكي لبداية ع، الك جديد في تاكي الدولة الم، اكية، ع، الك يككس للقوة وليس للعدوان؛ ولكن، ايانة للساقم وليس للقمع؛ ولكن دفاعًا عن دولة القانون والح العدل، بيساس للقضالم على الإكهاب وبم امن في كباغ البتد؛ ولكن مع، ايانة الحقوي والحكيات، يدغم اقت، أدًا عمثقا ومشاكوعات وطنية ضاخمة للدولة والقطاع الخا، واساتثماكات مباشاكة؛ ولكن مع الحفام على حقوي الفقكام ومحدودي الدخل) طبعًا هيبق فيه محافمة على حقوي الفقكام والغتبة والمساالكين، **نومال احنا هنعمل ايه يعني!** لازم هنحافم عليام إن شالم الله؛ ولكن مع الحفام على حقوي الفقكام ومحدودي الدخل وتتمية المناط المامشاة، ي، اون منمومتا القيميامة وا خةقياة، يعززها ويحمياها؛ ولكن يكفال للفنون وادداب حكية الفكك والإباداع، بيسمن ويكحاب بالانفتا؛ ولكن يحافم على الاوية الم، اكية وطبايعنا الثقافية إن م، الك الجديدة ساتعمل من أجل المساتقبل، متفاعلة مع متطلبات الحاضاك، ومساتقيدة من تباكب الماضي

Google's Translation:

Dear sons of Egypt, our two glorious revolutions on January 25 and June 30 paved the way for the beginning of a new era in the history of the Egyptian state, an era devoted to force and not aggression. But to maintain peace, not to oppress; But in defense of the state of law, truth and justice, it establishes the foundation for eliminating terrorism and establishing security throughout the country. But while preserving rights and freedoms, it supports a gigantic economy, huge national projects for the state and the private sector, and direct investments. But while preserving the rights of the poor and low-income people (of course, there will be preservation of the rights of the poor, the oppressed, and the needy. **What are we going to do? I mean,** we must protect them, God willing); But while preserving the rights of the poor and low-income people and developing marginalized areas, it preserves, strengthens and protects our value and moral system. But arts and literature guarantee freedom of thought and creativity, and believe and welcome openness. But it preserves the Egyptian identity and our

cultural nature. The new Egypt will work for the future, interacting with the requirements of the present, and benefiting from the experiences of the past.

Reverso's Translation:

The distinguished sons of Egypt, our glorious revolution on the 25th of January and the 35th of June paved the way for the beginning of a new era in the history of the Egyptian State, an era devoted to power and not to aggression; But the maintenance of peace, not repression; But in defense of the rule of law, the right and justice, it establishes the elimination of terrorism and the restoration of security throughout the country; But while safeguarding rights and freedoms, it supports a giant economy, huge national state and private sector enterprises, and direct investments; But while preserving the rights of the poor and the low incomes (in which, of course, the rights of the poor, the predominant and the poor are preserved, *or mal, we are working*. We must preserve them, God willing); But while preserving the rights of the poor, the limited incomes and the development of marginalized areas, our value and ethical system is safeguarded, promoted and protected; But arts and morals are guaranteed freedom of thought and creativity, believing in and welcoming openness; But it preserves Egyptian identity and our cultural stamps. New Egypt will work for the future, reacting to the requirements of the present and drawing on the past's experiences.

Microsoft Bing's Translation:

Dear sons of Egypt, our two glorious revolutions on the twenty-fifth of January and the thirtieth of June have paved the way for the beginning of a new era in the history of the Egyptian state, an era devoted to force and not to aggression, but to maintain peace and not oppression, but in defense of the rule of law, right and justice, which establishes the elimination of terrorism and the establishment of security in the country, but with the preservation of rights and freedoms, supports a giant economy and huge national projects for the state and the private sector, and direct investments; but while preserving the rights of the poor and low-income (of course). It will preserve the rights of the poor, the overcomers and the needy, so what do we do! We must preserve them hopefully), but while preserving the rights of the poor and low-income and developing marginalized areas, it preserves, strengthens and protects our value and moral system, but guarantees the arts and literature freedom of thought and creativity, believes and welcomes openness, but preserves the Egyptian identity and our cultural natures. The new Egypt will work for the future, interacting with the requirements of the present, and benefiting from the experiences of the past.

Analysis:

Example 7:

أومال احنا هنعمل إيه يعني!

Reverso translated the clause "احنا هنعمل إيه يعني!" into "*we are working*". We notice the change in meaning as the engine did not comprehend the actual meaning of this colloquial

phrase and this causes a case of lexical ambiguity. The actual meaning of the translated output is "اِنا بنشأتل" and the clause should be translated into "what else would we do!" to provide the intended meaning. It also did not understand the colloquial word "نوال" which is used in Arabic for confirmation and translated it into "or mal".

Excerpt 5:

شاعب م، الك العميم، لقد تعكفتم إل كجل من كجال القوات المسالحة وما عبكتم عنه من تقديك وثقة في بتكليفكم لي في هكا المن، اب، إنما يعود با سا اس لموقف تلك المسسااساة الوطنية؛ يتوقف المتخدم لبكهة ثم يسااتكمل حديثه (موقف تلك المسسااساة الوطنية العقيقة من تطلعاتكم وآمالكم) ي، اف الجماوك مقاطعاً، إنما يعود با سا اس لموقف تلك المسسااساة الوطنية العقيقة من تطلعاتكم وآمالكم ففي اللحمة التي شاكت فيا بتولي كئاساتاء، واسامحو لي أن أشايد دونما تحيز بالدوك الوطني لقواتنا المسالحة، م، انع الكجال، وكمز الالتزام والانضباط، قلعة الوطنية الم، اكية عل مك الع، اوك، نسمن جميعاً أن الفضال لله ولكنه سابحانه وتعال خل اسباب ولقد شام القدك أن يكون لأكه المسسااساة الوطنية دو سك أساساي في انت، الك إكادة الشاعب الم، اكي في ثوكتي 25 ينايك و30 يونيو فلقد انحازت القوات المسلحة الم، كية إل إكادة الشعب ونجت باخة ووطنية كجالا في مواجة ما د بك و خ ط ط لضا الكب اساتكك وأمن الوطن فإكا تأملنا واقعنا الإقليمي، سااندكك تماماً معن أن يكون جيش الدولة وطنياً موحداً لا يسمن بعقيدة ساوى الوطن بعيداً عن انحيازات أو توجات وسايمل الجيش الم، اكي من الشاعب وللشاعب، يسمن بأن عطاءه ممتد حرباً وسيميا وسايساال التاكي لقواتنا المسالحة دو كها الوطني العميم في الحفام عل

الوطن م، انا وعل الشعب موحداً

Google's Translation:

The great people of Egypt, you have met a man from the armed forces. The appreciation and confidence you expressed in appointing me to this position is due primarily to the position of that national institution. (The speaker pauses for a moment and then continues his speech) The position of that venerable national institution on your aspirations and hopes (the audience applauds interrupting), is essentially due to the position of that venerable national institution on your aspirations and hopes. At the moment when I was honored to assume its presidency, and allow me to praise without bias the national role of our armed forces, the factory of men, the symbol of commitment and discipline, the citadel of Egyptian patriotism throughout the ages, we all believe that the credit belongs to God, but God Almighty created the reasons. As fate would have it, this national institution played a fundamental role in the victory of the will of the Egyptian people in the revolutions of January 25 and June 30. The Egyptian Armed Forces sided with the will of the people and succeeded, with the loyalty and patriotism of their men, in confronting what was planned and planned to attack the stability and security of the nation. If we contemplate our regional reality, we will fully understand what it means for the state's army to be a unified nationalist that does not believe in a doctrine other than the homeland, independent of biases or orientations. The Egyptian army will continue to be of the people and for the people, believing that its contribution will extend in war and peace. History will record our armed forces' great national role in keeping the nation intact and the people united.

Reverso's Translation:

The great people of Egypt, you have been introduced to a man of the armed forces. The appreciation and confidence you expressed in assigning me to this post is mainly due to the position of that national institution; (The speaker pauses for a while and then completes his speech) The long-standing attitude of this national institution to your aspirations and hopes (applauds the public interruptly) is mainly due to that national institution's long-standing attitude to your aspirations and hopes. At the moment when I was honored to assume her presidency, let me pay an unbiased tribute to the national role of our armed forces, the men's factory, the symbol of commitment and discipline, Egypt's fortress of patriotism for ages, we all believe that thanks to God but Almighty God created reasons. Fate wanted this national institution to play a key role in the victory of the will of the Egyptian people in the January 25 and June 30 revolutions. The Egyptian armed forces had sided with the will of the people and had succeeded wholeheartedly and patriotistically in confronting what had been planned and planned to strike the country's stability and security. If we contemplate our territorial reality, we will be fully aware of the meaning of a unified national army that believes in a belief other than the homeland away from biases or orientations. The Egyptian army will continue to be people and people, believing that its tender is an extended war and peace. History will record our armed forces' great national role in keeping the homeland safeguarded and the people united.

Microsoft Bing's Translation:

The great people of Egypt, you have met a man of the armed forces. The appreciation and confidence you expressed in entrusting me to this position is mainly due to the position of that national institution, (the speaker pauses for a moment and then continues his speech) the position of that ancient national institution towards your aspirations and hopes (the public applauds interruptedly), but mainly due to the position of that ancient national institution towards your aspirations and hopes. The moment I had the honor of assuming its presidency, and allow me to pay tribute without prejudice to the national role of our armed forces, the factory of men, the symbol of commitment and discipline, the citadel of Egyptian patriotism throughout the ages, we all believe that it is thanks to God but He Almighty created the causes. As fate would have it, this national institution played a key role in the victory of the will of the Egyptian people in the revolutions of January 25 and June 30. The Egyptian armed forces have sided with the will of the people and have succeeded with sincerity and patriotism in confronting what was planned and planned to undermine the stability and security of the homeland. If we reflect on our regional reality, we will fully realize what it means for the state army to be a unified patriot that does not believe in a doctrine other than the homeland, away from biases or orientations. The Egyptian army will continue to be from the people and to the people, believing that its giving extends to war and peace. History will record our great national role in preserving the homeland and the people united.



Analysis: Example 8:

عظامه ممتد حكياً وسهلاً

Reverso misinterpreted the meaning of the following clause "عطاءه متد حرباً وسلاً" as it translated it into *"its tender is an extended war and peace"*. It is noticed that Reverso turned the word "متد" *"extended"* from a verb into an adjective and therefore it altered the whole meaning of the clause into "عطاءه حرب متدة وسلاً" which serves a case of lexical ambiguity. As for the other two engines, they translated it as follows: Google translated it into *"its contribution will extend in both war and peace"* which may be considered a correct translation as it carries the intended meaning, however, it produced it in the future simple tense instead of the present tense. Microsoft translated it into *"its giving extends to war and peace"* which also provides the intended meaning, but the engine used the wrong proposition "to" while it should have been "in". The actual translation should be *"its contribution to them extends to times of war as well as times of peace"*.

Excerpt 6:

بناء مصر، نتطل إلى عصر جديد يقوم على التسامح مع الماضي وتسامح مع من اختلفوا من أجل الوطن وليس عليه، التسامح ما بين أبناء وطننا باسالتنهام من أجموا في حقه أو اتخكوا من العنف (ت، الح ما بين أبناء وطننا باسالتنهام من أجموا في حقه أو اتخكوا من العنف مناجاً) ت، افى (ت، الح ما بين أبناء وطننا باسالتنهام من أجموا في حقه أو اتخكوا من العنف مناجاً) أتطلع إلى انضمام كافة أبناء الوطن، كل من يكون في م، الك وط، ن، لنيني ساويًا مساتقبل، لا إق، الم لم، الك في مسايتنا؛ لتحي العيش والحكمة والكامة الوطنية والعدالة الاجتماعية. وأما من أكاقوا دمام ا بكيام وقتلوا المخل، الين من أبناء م، الك فة مكان لام في تلك المسايسة ونقولها واضيبيحة جلية (ت، افى (ت، وأما من أكاقوا دمام ا بكيام وقتلوا المخل، الين من أبناء م، الك فة مكان لام في تلك المسايسة! وأقولاً واضاحة جلية؛ لا تااون ولا مادنة مع من يلجأ إلى العنف! لا تااون ولا مادنة) ت، افى (لا تااون ولا مادنة لمن يكيدون تعطيل مساالكتنا نحو المساالقبال الكي نكيده بنااننا! لا تااون ولا مادنة مع من يكيدون دولة بة هيباء! أعدكم بأن المساتقبل الفكيب سايشاد استعادة الدولة الم، كية لايبنا على التوازي) ت، افى (أعدكم بأن المساتقبل الفكيب سيشاد استعادة الدولة الم، كية لايبنا على التوازي مع جاودنا جميعاً أنتم وأنا لتحي ادمال والتطلعات

Google's Translation:

Sons of Egypt, I look forward to a new era based on reconciliation and tolerance for the sake of the homeland. Reconciliation with the past and tolerance with those who disagreed for the sake of the homeland and not against it. Reconciliation among the people of our country with the exception of those who committed crimes against it or adopted violence as a method (applause). Reconciliation between The people of our country, except for those who committed crimes against it or adopted violence as a method. I look forward to the joining of all the people of the country, all those who see Egypt as a homeland, to build together a future, not excluding Egypt in our journey. To achieve livelihood, freedom, national dignity and social justice. As for those who shed the blood of innocents and killed the loyal people of Egypt; There is no place for them in that process. I say it clearly and clearly (applause), and as for those who shed the blood of innocents and killed the loyal sons of Egypt, there is no place for them in that process! I say it clearly and clearly; No tolerance or appeasement with those who resort to violence! No complacency or appeasement (applause). No complacency

or appeasement for those who want to disrupt our march towards the future we want for our children! No tolerance or appeasement with those who want a state without prestige! I promise you that the near future will witness the Egyptian state regaining its prestige in parallel (applause). I promise you that the near future will witness the Egyptian state regaining its prestige in parallel with the efforts of all of you and me to achieve hopes and aspirations.

Reverso's Translation:

The Egyptians look forward to a new era of reconciliation and tolerance for the nation, reconciliation with the past and tolerance for those who disagree for the sake of the homeland and not for it, reconciliation between our countrymen except for those who have criminalized or taken a systematic violence. I look forward to the joining of all the countrymen, all those who see Egypt as home, let us build together a future, no exclusion for Egypt in our journey; To achieve living, freedom, national dignity and social justice. Those who shed the blood of innocent people and killed devoted Egyptians; They have no place in that march. I say it clearly (applause), and those who shed the blood of innocent people, and killed devoted Egyptians, have no place in that march! **Their words are clear**; No complacency, no crescendo with those who resort to violence! No complacency, no truce (applause), no truce for those who want to disrupt our march towards the future we want for our children! No relaxation and no truce with those who want a state without majesty! I promise that the near future will see the Egyptian state regain its prestige on parallel (applause), I promise you that the near future will see the Egyptian state regain its prestige on parallel with all of our efforts to achieve hopes and aspirations.

Microsoft Bing's Translation:

The sons of Egypt, I look forward to a new era based on reconciliation and tolerance for the sake of the homeland, reconciliation with the past and tolerance with those who disagreed for the sake of the homeland and not on it, reconciliation between the sons of our country except for those who committed crimes against him or took violence as a method (applause), reconciliation between the sons of our country except for those who committed crimes against him or took violence as a methodology. I look forward to the joining of all the sons of the homeland, all those who see Egypt as a homeland, to build together a future, not exclusion of Egypt, in our march to achieve bread, freedom, national dignity and social justice. As for those who shed the blood of the innocent and killed the faithful sons of Egypt, there is no place for them in that march. **I say it clearly** (applause), but those who shed the blood of innocent people and killed the faithful sons of Egypt have no place in that march! I say it very clearly: there is no tolerance or compromise with those who resort to violence! No complacency, no applause, no complacency or appeasement for those who want to disrupt our march towards the future we want for our children! There is no complacency or appeasement with those who want a state without prestige! I promise you that the near future will witness the restoration of the Egyptian state's prestige in parallel (applause), I promise you that the



					object that the engines did not add, leading to an ambiguous output.
	اسمحولي إن إحنا نوجهلهم..... ال تحية	Allow me if we address them..... The greeting	Let me refer to the fact that we know them, to all Egyptians, greeting	allow me to address them..... greetings	On the lexical level , the engines mostly used the correct equivalents but without understanding the significance of their use in the original text.
2	وإثبات أن تلك الثقة كانت في محلها	prove that that confidence was misplaced	and proving that that trust was right	and proof that that trust was right	On the lexical level , Google used the word “ misplaced ” as an equivalent of the word "ةقحة قلة دهمةة" while it implies the opposite meaning of the original word.
3	ثم تفاجئون	then you will be surprised	then surprise	then you will be surprised	On the syntactic level , the use of the future simple tense in Google and Microsoft’s translations provides an intention that is opposite to the speaker’s words. Reverso managed to structure the clause correctly but did not mention the subject of the clause.
4	أومال احنا هنعمل إيه يعني!	what are we going to do? I mean,	Or mal, we are working	so what do we do!	On the lexical level , the original text is in colloquial Egyptian Arabic, and it implies affirmation of the speaker’s utterance but the engines did not comprehend its meaning.
5	عطاءه ممتد حربًا وسلامًا	its contributio n will extend in war and peace	its tender is an extended war and peace	its giving extends to war and peace	On the lexical level , Reverso changed the word "متد" from a verb into an adjective which affected the whole meaning of the clause. On the syntactic level , Google used the future simple tense instead of the present simple

Excerpt	Original	Google	Reverso	Microsoft	Comment
					tense. Reverso used the preposition “to” which is a wrong choice.
6	أبناء مصر، أنتطلع إلى عصر جدي د	Sons of Egypt, I look forward to a new era	The Egyptians look forward to a new era	The sons of Egypt, I look forward to a new era	On the syntactic level , the clause begins with a vocative case which Reverso did not recognize and therefore it translated the phrase and structured it as the main subject of the sentence and omitted the real subject.
	وأقولها واضحة جليية	I say it clearly and clearly	Their words are clear	I say it clearly	On the lexical level , Google repeated the word “clearly” as an equivalent of two words that are close in meaning which are "واضحة" and "جليية" instead of finding a different alternative. On the syntactic level , Reverso reconstructed the clause and changed the subject from “I” to “Their words”.

10. Result

The findings of analyzing 10 examples of the selected excerpts show that the engines were unable to overcome many of the ambiguities that appeared due to the lexical and syntactic translation gaps between the English Language and the Arabic Language. The existence of Colloquial Egyptian Arabic terms and expressions and the constant interruptions during the speech created obstacles that prevented the production of a more consistent machine-translated output. Colloquial Egyptian Arabic presents many cultural characteristics of the Egyptian people that the engines failed to recognize and therefore point them out in their outputs due to the enrichment of the Colloquial terms of many significances and uses. This also affected the translations of the terms and expressions in Standard Arabic which shows the engines' incapability of addressing the translation gaps between the source text and the target text. These findings prove that relying solely on the outputs of machine translation without the intervention of the human translator is not feasible. Engines alone cannot perceive the underlying issues in the differences between the source and target language characteristics. Additionally, they cannot apply the necessary strategies to overcome these problems.

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