

The Challenges of Using Machine Translation While Translating Polysemous Words

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Abstract

The disparities between machine translation and human translation have shown to be quite challenging when translating polysemous words. This study examines the challenges of translating polysemous words between French and English by finding an easy way to translate the polysemous terms which is the key objective. It would also help in dealing with the most effective method of translating polysemous terms, while a few succeed in translating the contexts and others struggle to come up with the right interpretations. As many words or phrases have numerous meanings, a machine translator is still unable to handle the ambiguity issues that arise and determine what the given context means. One issue that machine translators have yet to solve is the phenomena of polysemy, or numerous meanings, though it certainly isn't the only one. In this paper, instances of these machine translations of texts from several text genres—including texts from the journalistic, medical, legal, and dictionary definition genres—are examined. To clear up any misunderstanding, one must consider the situation's background. One must also acknowledge that the situation makes sense. In the concluding section of this study, we will be shown some examples of significant issues that have arisen as a result of a lack of understanding of the term, including misunderstanding, lack of comprehension, ambiguity, and limitations on the heedless use of technical definitions in favour of common ones.

Keywords: polysemy, polysemous words, translation, machine translation, context

1. Introduction

Translation plays a major role in communication across various nations from the source language to the target language. Software that can swiftly translate the context is referred to as machine translation. It works by verbatim translating sentences without human intervention. A polysemous term has more than one meaning, making it challenging for machine translation to select the appropriate one for the situation. It is also present in both the source and target languages. However, the polysemous words cannot be translated by this program. We run into lexical and grammatical issues while using the machine to translate. One of the lexical issues that translators encounter is the translation of English polysemous words into French and vice versa. Additionally, knowing the context aids in deciphering the meanings of polysemous words and ensures that viewers are given the appropriate ones. The term "polysemy" has been defined in various forms. If a term has multiple meanings, it is said to be polysemic, as opposed to monosemic, which has just one meaning (Ghazala). A translator can better understand the various types of contexts if they are familiar with them (Orero). A translator occasionally struggles to understand proper meanings, making it difficult for them to relay messages effectively. These issues could occur on a global scale, particularly when translating from English to French.

2. Literature Review

2.1 Polysemy

Even amid a linguistic background that is extremely biased, polysemous words may cause difficulty if the translator solely sticks to the word's primary meaning. To develop precise definitions, many viewpoints are provided. Polysemy is a characteristic of a single lexeme (Lyons). Two identical forms are classified as homonyms if their origins are separate,

or "belong to different etymologies," whereas they are treated as polysemous if they share the same etymology (Lyons). A term having multiple meanings is called polysemy, which is closely related to homonymy (Kharma & Hajjaj). A lexeme has gained more than one meaning in a sense relation known as polysemy (Finch). The situation in which a single acoustic picture alludes to many truths by having multiple meanings or contents (Baldinger). Greek is the root of polysemy. Greek words "poly" and "semy" refer to numerous meanings, respectively (Moore). Two or more similar forms having distinct but related meanings is a phenomenon (Panman). One instance of polysemy is when a single word has several synchronically connected meanings (Al-Hadithi). Communication is the act of attempting to convey a message by the use of an image; it fundamentally comprises the exchange of thoughts, feelings, and experiences between the sender and the recipient of the message (Knezevich). When a word is synonymous, that is only the beginning of polysemy. (Taylor and Lakkoff). Words or phrases with many, connected meanings are said to be polysemous. The polysemous nature of language makes it frequently difficult for learners to instinctively understand how seemingly unrelated senses are semantically related. (Tyler and Evans, 2004). When a lexical item has several distinct meanings, it is referred to as having polysemy in semantic analysis (Crystal). There may be several meanings for a single lexical term, some of which may be related (Harold). Due to lexemes' constant meaning shifts and formation of meaning variations, polysemy significantly impacts the historical development of a word's meaning (Lobner). When two words are classified as homonyms, they normally have two separate entries, however, when a word has several meanings, there will be a single item with a number list of the various meanings of the term (Ibid).

3. Machine Translation

Machine translation is most commonly used on the internet. Software like google translate is essential for providing speedy translation but it is not renowned for its excellent translation. One of the most popular machine translation techniques is transfer-based translation. Transfer-based translation produces a translation from a middle representation that mimics the intent of the source (Okpor). Machine translation faces a variety of challenges when rendering a text, including ambiguity, numerous interpretations, language structural and lexical variances, and word units with multiple words, such as idioms and collocations (Arnold). It has traditionally been the focus of translation studies to define translation (or interlingual translation) as the process of creating a translation, that is, the interpretation of linguistic indications using another language (Munday 2012: 9). MT is currently most frequently used online. Online translation services like Google Translate are perhaps not well renowned for their excellent translations, but they play a crucial role in providing instant translations into users' native tongues with the aim of merely communicating the information (Hutchins, 2010: 17). Idioms are particular terms in a language that is frequently metaphorical and very rarely have a literal meaning. Idioms cannot be translated using traditional translation techniques.

In order to complete this work, I've chosen French words like *trou*, *tête*, *jouer*, in sentences. I've used google translate, to examine how accurately and how many polysemy-containing terms were translated into English using a machine translator. I've added original sentences in the machine translation tool, and the translations were generated automatically. The following table list the sentences along with the translations.

Table 1. Translation of the word *trou*

ORIGINAL SENTENCE	MACHINE TRANSLATION	ACCURATE TRANSLATION
TROU		
Ce garçon a beaucoup de trous dans ses études.	This boy has a lot of holes in his studies.	This boy has a lot of gaps in his studies.
Le père de mon ami a passé cinq ans au trou .	My friend's father spent five years in the hole .	My friend's father spent five years in prison .
Avec son tabagisme régulier, il a un pied dans le trou .	With his regular smoking, he has one foot in the hole .	With his regular smoking, he got one foot in the grave .

Table 2. Translation of the word *tête*

ORIGINAL SENTENCE	MACHINE TRANSLATION	ACCURATE TRANSLATION
TÊTE		
Je préfère se trouver en tête dans un bus.	I'd rather be in the lead in a bus.	I prefer to sit near the front of a bus.
C'est une tête , il a obtenu la première place à tous ses examens.	He's head , he got first place in all his exams.	He is brainy , he got first place in all his exams.
L'entreprise a fait face à une grosse perte à cause de la tête du directeur.	The company faced a big loss because of the manager's head .	The company faced a big loss because of the manager's resignation .
Spectaculaire tête de Ronaldo	Spectacular head of Ronaldo	A spectacular header from Ronaldo

Table 3. Translation of the word jouer

ORIGINAL SENTENCE	MACHINE TRANSLATION	ACCURATE TRANSLATION
JOUER		
Les clous jouent , l'horloge va tomber.	The nails are playing , the clock is going to fall.	The nails are loose , the clock is going to fall.
J'ai joué que j'ai oublié d'apporter son livre.	I played that I forgot to bring his book.	I pretended that I forgot to bring his book.
Je joue , il va gagner le prochain match.	I play , he will win the next game.	I bet ; he will win the next game.

Table 4. Translation of the word yeux / œil:

ORIGINAL SENTENCE	MACHINE TRANSLATION	ACCURATE TRANSLATION
YEUX / ŒIL		
J'ai ajouté l' œil à la porte pour voir les visiteurs.	I added the eye to the door to see visitors.	I added a peephole to the door to see visitors.
Le buisson a beaucoup d' yeux mais pas encore de fleurs.	The bush has plenty of eyes but no flowers yet.	The bush has plenty of buds but no flowers yet.
Je n'aime pas les yeux dans un bouillon	I don't like the eyes in soup	I don't like the globules of fat in soup.

Table 5. Translation of the word café:

ORIGINAL SENTENCE	MACHINE TRANSLATION	ACCURATE TRANSLATION
CAFÉ		
Je mouds le café tous les jours.	I grind coffee every day.	I grind coffee beans every day.
J'ai acheté une chemise café .	I bought a coffee shirt.	I bought a coffee-colored shirt.
Il a rempli le bar avec les caisses de café	He filled the bar with crates of coffee .	He filled the bar with cases of liqueur .

3.1 Translation of the Word Trou

One of the examples of a French polysemous word is "Trou" which means "Hole". The basic meaning of this word is "an opening or void in the surface or solid body." But in French, it gives various meanings that google translate is not able to find appropriate meaning. In French, the term "trou" has a variety of meanings, in the context of space of interval, it refers to a gap. Additionally, it serves as slang for the words "grave" and "jail."

Some translations were rendered correctly but the sentence "Ce garçon a beaucoup de trous dans ses études" is translated into "This boy has a lot of holes in his studies." In this case, trou belongs to the word gap which is the space of interval. On the other hand, Le père de mon ami a passé cinq ans au trou is translated into My friend's father spent five years in the hole. In this instance, trou refers to prison in their slang.

3.2 Translation of the Word Tête

Tête, which means "head," is one of the terms that has numerous meanings in both French and English languages. It refers to the "front" when a side or a section is mentioned. It uses the term "brainy" to describe a person's intelligence. Figuratively speaking, it alludes to "resignation". Additionally, it makes casual reference to the football "header," or head strike.

"Je préfère se trouver en tête dans un bus" is translated as "I'd rather be in the lead in a bus". In this case, tête here refers to the front of the bus, hence it means "front" in this context. Also, "Il est tête, il a obtenu la première place à tous ses examens" is translated into "He's head, he got first place in all his exams" here tête means "brainy" it refers to the person's intelligence.

3.3 Translation of the Word Jouer

One more illustration of a polysemous word is "jouer," which means "to play." When a thing moves without

encountering any resistance, it is said to be "loose". It means to "pretend," to fake a sensation. When placing a bid, it is also referred to as a "bet."

The French phrase "Les clous jouent, l'horloge va tomber" translates as "The nails are playing, the clock is going to fall". Because the nails are playing freely and the clock is about to tumble, jouer means to be loose. The phrase "J'ai joué que j'ai oublié d'apporter son livre" is translated as "I played that I forgot to bring his book," however as this phrase fakes an emotion, the term "pretend" should be used.

3.4 Translation of the Word *Yeux/Œil*

Another example of a French polysemous word is yeux/œil which means eye/eyes. The basic meaning of this word is the organ that helps people to see. It also has various meanings in French: peephole, buds, and globules of fat.

The French sentence "J'ai ajouté l'œil à la porte pour voir les visiteurs" is translated as "I added the eye to the door to see visitors", here œil refers to the peephole which helps people to look through the door. The phrase "Le buisson a beaucoup d'yeux mais pas encore de fleurs" is translated as "the bush has plenty of but no flowers yet", here yeux refers to a small lump on a plant that develops into a flower.

3.5 Translation of the Word *Café*

One of examples of a French polysemous word is café which means coffee, a hot drink made up of coffee beans. In French, it gives various meanings like coffee beans, coffee colour, liqueur, etc.

« Je mouds le café tous les jours » is translated as "I grind coffee every day" in google translate but here café refers to a coffee bean which is a roasted and ground seeds. « Il a rempli le bar avec les caisses de café » is translated as "He filled the bar with crates of coffee" but here café refers to liqueur.

4. Methodology

Data for this study is gathered using a qualitative research methodology and library research. The translation work will be the data analysis of the qualitative research. I've collected the data of 5 polysemous words in French. And with the help of google translate, I entered the data and found the problems of it. This methodology is to evaluate polysemous words in the French language by machine translation. On the whole, school students and beginners who are learning French use machine translation, therefore, they will be the respondents of this study. Five French words have been chosen which have multiple meanings and gathered the meanings with the help of a dictionary and tested in google translate.

5. Findings

Observing the resulting translations of the words trou, tête, jouer, yeux et café reveal several things. The results for the term "trou" as a "hole" reveal that in more abstract situations when the main meaning of the word is not semantically clearly related to one of its meanings as a polysemous word, the machine translator frequently used the literal translation, which was erroneous. The meaning of the word "tête" (head) can be understood to mean "on top of anything, highly essential, the center." The majority of times the word "tête" is used in various situations, it refers to a family leader who is on top of a family issue, much as how a bodily portion is on top of the neck. Header and brainy are words that have a relatable meaning to the head. However, in English, the phrases "resignation" and "head" do not have the same semantic meaning. However, this does not imply that the translation is incorrect.

Upon closer examination, it becomes apparent that the word "jouer" has a variety of meanings in French, all of which revolve around the idea of "a front, a person." The equivalents in English, however, are not the same, which means that their semantic notions are not connected in any way. Since these factors are crucial in identifying the meanings of the polysemic lexemes, one must pay close attention to context, text type, and collocational relationships as well. Many polysemous French words have multiple meanings. This must be kept in mind while translating a word that sounds strange when translated into its usual meaning.

6. Conclusion

Using a machine translation, the results of the current investigation show that we cannot translate polysemous terms from French to English. Because they have not been exposed to the culture of the target language, those who are learning French as a second language are not familiar with the vocabulary and various connotations. The difference between the two civilizations can be seen in this. Furthermore, because the context and the text contain connotative meanings, it is impossible to avoid the difficulties of the translation process when using polysemic terms. According to the study's findings, it is strongly advised that when translating, individuals pay close attention to polysemic words and concentrate on them to understand the words' deeper meanings. The other factor that can assist in achieving the right translation is to make a text corpus extensive enough to provide enough samples for a statistical model to consistently produce the correct translation. Lastly, this study discovered that polysemic words can be challenging to translate when

the two meanings are closely related. It was subsequently made clear that the right usage of the linguistics context aids individuals in determining the precise meaning based on clues offered by adjacent words. But this doesn't mean that machine translation is useless, it helps to provide a translation in a short amount of time. The use of machine translation as a tool for translators is still very much in demand, especially when it comes to quickly rendering enormous amounts of text. Therefore, it is important to utilize machine translation cautiously at least until technology improves to understand the pragmatic meaning, supervision is required to prevent such errors.

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