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Man vs. Machine: Interpreting the Ambiguities in Diplomatic Negotiations

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Man vs. Machine: Interpreting the Ambiguities in Diplomatic Negotiations

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Abstract

This paper is intended to explore the linguistic causes of ineffectiveness and inefficiency in diplomatic negotiations and determine the best solution. The first sections are designated to explaining the function of international negotiation and typical linguistic problems that hinder effective communication in these situations. After determining that interpretation is the best option for multi-language negotiation, this paper examines the merits of both machine and human interpreters. I argue that human interpreters are more accurate in deciphering ambiguity and working with the intricacies involved in diplomatic discussions. This position is supported by numerous examples, including the current operations of the European Union, as well as non-governmental organizations. The conclusions of this paper confirm the need for human interpreters as the most accurate tool available for international negotiations.
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and Mom and Dad, for not questioning my stubborn procrastination and never doubting my ability
**Introduction**

The heart of relations between any two parties is dialogue. Dialogue has a number of components that can be analyzed, such as word choice, speech style, and tone – all of which factor into the outcome of the negotiation and are inherent to language itself. In the case of nations, dialogue is the means by which two or more parties can come together and attempt to reach a consensus that is beneficial to all. When one dissects the intricacies of international negotiations, it is clear that the above factors each have an influence. What is crucial, however, is not to determine what linguistic factor of negotiation is the most influential or important, but instead to pick out each significant component and attempt to find a way to ensure that it is being dealt with in the most effective and efficient manner.

There have been many instances when lack of understanding in diplomatic dialogue has led to extreme ineffectiveness and efficiency, which will be exemplified in this study by the Russian versus English meaning of the word ‘control’. Diplomatic meetings determine serious global outcomes. I believe that nations who engage in negotiations have a much better chance of reaching mutually beneficial agreements and long-term outcomes than those who opt automatically for non-verbal methods such as embargoes and military maneuvers. It is certainly common scholarly knowledge that
negotiation is vital to international relations, and that the amount of negotiation has been increasing.¹

Furthermore, many experts also speak about the barriers to successful negotiation, such as the countries' political, religious, and economic ties and agendas. While I acknowledge that all of these factors contribute greatly to inefficiency in negotiation, I believe that there is a great need to start from the most basic part of every conversation between two or more people: language. Although solving the issue of having messages properly conveyed may not change the fact that nations still have political agendas and come to the table with set views and objectives, it is the stepping-stone for more effective and efficient diplomatic meetings.

This paper is intended to explore the linguistic causes of ineffectiveness and inefficiency in diplomatic negotiations and determine the best solution. After outlining the importance of diplomatic meetings, I determine that the main linguistic impediment to negotiation is the misunderstanding caused by ambiguity, framing and metaphors. I address these factors, coupled with differing cultural backgrounds and thus perceptions, and look at possible solutions to the problem of meaning not being properly transferred between speakers of different languages.

I argue that interpretation allows each person to use their native language and is thus the best solution for multi-national negotiations. It is

important that interpreters understand the ambiguities in each language and are familiar with its metaphors and idiomatic expressions. Furthermore the interpreter must also be well-prepared for the topic at hand and knowledgeable about each participant’s cultural background.

Subsequently, I examined what method of interpretation is best suited for diplomatic settings by researching both the merits and flaws of both machine and human interpreters, in reference to their ability and accuracy. Through thorough research I conclude that although machines are very cost-efficient and work at a much faster pace than humans, they are more suited to lengthy text and intelligence translations and consumer electronics. The appropriate uses for and differences between translation and interpretation will also be clarified. Humans are the most accurate speech interpreters, and accuracy is vital to diplomacy.

Although the business and private sectors feel that machine interpretation is adequate in certain situations, it is not an appropriate choice in critical negotiations that have such great impacts on the entire world’s well being. As will be discussed, even IBM recognizes the faults in speech-to-speech interpretation devices as far as ambiguity is concerned and provides multiple options that can be selected. Examples of governmental and nongovernmental use of human interpreters for live diplomatic situations further demonstrate the importance of using the most accurate method possible.
Even if they could eliminate ambiguity, which is nearly impossible even in discussions between two people of the same native language, machines are not adept to understand different accents and dialects, culturally-sensitive topics, and topics that have not been pre-programmed. With the following elaboration of these points, it is clear that human interpreters are far superior and should be preferred to machines in diplomatic negotiations.

**The Function of Diplomacy**

In order to understand why language is so crucial to diplomatic successes and failures, it is important to first outline the purpose of diplomats and diplomacy. Although many definitions of diplomacy have been suggested by dictionaries and varied scholars, the most applicable to this discussion is provided by Ellis Briggs: “Diplomacy is the conduct of official business by trained personnel representing governments. The purpose of diplomacy is to reach agreement within a framework of policy.”

The diplomat is thus the representative of each government or people to proceed in negotiation based on previously agreed upon terms decided by each diplomat’s respective government. Communication via speech and written documents are therefore the inherent methods through which diplomacy functions.

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It is essential for the functioning of global peace to have negotiation. According to Raymond Cohen, “[an] arrangement reached by negotiation, and hence by joint consent, is absolutely different from one arrived at by the crude imposition of one party’s will on another.” To expand, it is necessary to understand the subtleties of what negotiation entails. Based on the interests of each diplomat’s nation, negotiation takes the form of bargaining. Keller considers negotiation successful when it “requires of each participant the ability not only to persuade but to be persuaded.”

The type of diplomatic communication may vary. Dinh cites summitry and conference diplomacy as two methods that are used. He describes summitry as “[…] face-to-face, interpersonal communication between heads of nation-states or their highest representatives (prime ministers, foreign ministers)[…]”. Conferences are a more casual type of meeting. Nicholas Eberstadt describes the origin of conferences:

‘Conference Diplomacy’ […] was the approach to ‘conflict resolution’ embraced by the Great Powers of Europe during the 1920s and 1930s[…] The premise underlying this peculiar mode of ‘diplomatic engagement’ was that the international disputes of the day, even the crises, were really just disagreements between reasonable gentlemen. If those gents could only be gotten into a room together to talk things out, the wishful thinking ran, a peaceful settlement agreeable to everyone could surely be reached.

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5 Dinh 96.
Summits and conferences were the foundations for the eventual creation of permanent diplomatic gatherings, such as the League of Nations and eventually the United Nations.

The importance of such communication has been greatly discussed as well. “In an anarchic world without any overarching international authority that can resolve disputes and allocate resources among contending powers, it may be useful to think of negotiation as the primary mechanism for achieving peaceful and legitimate change.” Both written and spoken diplomacy are extremely important, but have different linguistic functions, methods, and consequences. The primary focus of this research, however, is to demonstrate the difficulties that the intricacies of language present to rapid live speech interpretation and the optimal method for solving this difficulty.

**Basic Linguistic Problems in Negotiation**

This section provides an explanation of the two main linguistic problems that effect diplomatic negotiation. Framing is the strategic tactic where new words are created or definitions are altered. Ambiguity has many forms and occurs when a word or phrase has more than one possible meaning, and the meanings are not compatible.

Negotiation between people of different native languages has inherent difficulties. The nuances, speech style, word choice, metaphors, and

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7 Cohen 7.
analogies that are difficult to translate and interpret all originate in one’s
own language first. All of these factors of language can drastically alter the
tone or meaning of a sentence, speech, or entire discussion. More
specifically, the words and phrases used in negotiations and treaties can
greatly influence the outcome and likelihood of reaching an agreement.

Although framing is a tactic purposefully used by debaters, it may also
be a factor that causes misunderstanding. Changing one term in a public
announcement or negotiation can show a change in attitude towards one or
more nations. The New York Times illustrates this shift in regards to the
previously deemed “rogue nations” to the new term “states of concern”.
Although the new word choice does not change the fact that nations at the
time, such as Iraq, are still considered unstable and threatening, it does signal
a shift in attitude and possibly signals the prospect of future alliances with
more dangerous and unpredictable nations.8

Part of framing may include adding words or changing definitions. As
seen in the above example, changing the definitions of words gives the
speaker control over the debate “[...] by bracketing how the audience may
think about an issue. To create new terms is to create new realities.” 9 This
is consistent with the alteration of wording by the State Department of the
former “rogue” nations. Creating new terms can especially hinder message

<http://www.nytimes.com/2000/06/23/opinion/updating-diplomacy-s-
language.html>.
reception when the listening parties are not aware of the new word’s intended use. As herein after described, the introduction of new words into society adds a layer of difficulty to interpreters.

Ambiguity is a multifaceted topic that encompasses many issues relating to diplomacy. Karrass states, “[the] ideal negotiator should have a high tolerance for ambiguity and uncertainty as well as the open-mindedness to test his own assumptions and the opponent’s intentions.” ¹⁰ According to Merriam-Webster, something that is ambiguous is “capable of being understood in two or more possible senses or ways”. ¹¹

¹⁰ Jönsson 63: C.L. Karrass.

Diplomacy.edu, part of the DiploFoundation, uses the famous Duck-Rabbit drawing to illustrate how ambiguity operates, as it “[...] can be seen as either a duck or a rabbit, but not both at the same time. This picture thus includes two separate and incompatible possibilities”\(^{13}\), which is precisely what ambiguity means in reference to language as well. In one’s own language, ambiguity can take on a number of forms including lexical, syntactic, and cross-textual. Diplomacy.edu studies the different aspects of language that are relevant in a diplomatic setting. Lexical ambiguity is a common issue in any situation and can occur in many languages. It occurs when one word can have two separate meanings or ideas. For example, the word “might” could mean strength and power, or could be a form of the auxiliary verb “may” which indicates permission or possibility.

Syntactic ambiguity occurs when a sentence has more than one possible meaning due to the structure or punctuation used. For example, the sentence – “My professor said on Monday he would give an exam” – can mean that he is to give an exam on Monday or that he informed the class on Monday of an exam. This can be remedied by a comma or the word ‘that’ to indicate what exactly was being said or when it was being said.

A less obvious form of ambiguity is occasionally present across an entire document. Cross-textual ambiguity is often found in legal texts through ‘open-ended sentences’.

For example, a chapter in a peace treaty may begin with a precise enumeration of the powers that one entity, for example, a central federal authority, may exercise. But at the end of the chapter an open-ended provision is inserted, which may, for instance, state that ‘the central federal authority may exercise some other duties as well.’

This is more of an issue in a document, however, and not as present in a diplomatic conversation.

Finally, ambiguity is often a tactic used by diplomats when they wish to conclude an agreement loosely because many of the contributors are not in complete consensus. Christer Jönsson writes: “Communication in international bargaining is inherently ambiguous. Ambiguity may be a deliberate means to retain flexibility but can also be prompted by the need to take various audiences into account.” Although Jönsson’s focus is international, this concept can apply to all negotiations of this manner. Through ambiguity, a negotiator can achieve his/her goals in a more sly way and prevent further debate. Sometimes this ambiguity is not only noticed, but also accepted in order to bring all parties to an agreement.

An example of deliberate diplomatic use of ambiguity to blur lines in one’s favor can be seen in President Obama’s nuclear diplomacy in the United Nations Security Council. Making blanket statements about never attacking countries with nuclear weapons can get tricky, as well as the inherent definition of ‘nation’. There is ambiguity in the strategy taken, as well as the words, as outlined by The Atlantic: “The American nuclear posture is a set of scientific, technical and engineering capabilities. Reducing the number of

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14 “Ambiguity”: Types.
15 Jönsson 32.
nuclear weapons -largely a symbolic gesture at the moment, but a definite vector -cannot mean -at least, this is the President’s understanding -that America’s nuclear capability ought to be degraded.”

Since blanket statements are not possible in order to protect America’s own interests as well as their allies, the solution is to create a picture through slight ambiguity that best displays the positive sides of the argument.

Ambiguity, both strategic and unintentional, is the main focus of the linguistic issues to be discussed because it directly effects and correlates to meaning, which is the primary place where misunderstanding occurs in any sort of discussion or negotiation. When participants have different perceptions of meaning, this greatly hinders the efficiency and effectiveness of any diplomatic situation. Jönsson makes this point clear in the beginning of his research on international bargaining, because it is the foundation of communication issues: “Meaning is typically defined as message fidelity: Does the receiver get the same message that the sender transmitted? [...] Meaning resides in the message and in perceptual filters that hinder message reception.”

In the next section, I show that these problems are amplified when translation and/or interpretation are involved, through the addition of debaters from varied linguistic and cultural backgrounds.

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17 Jönsson 13.
**Inter-Language Problems/Interpretation Issues**

Negotiation occurring between parties with different native languages continues to produce inefficiencies and problems. There are underlying issues, such as inherent cultural differences that affect the terms of a negotiation. If two or more representatives of very different cultures are to forge an agreement, they must consider one another's cultural variations when trying to formulate the best possible outcome. There is, however, a larger underlying issue. If this cultural acceptance can become second nature and the world grows more tolerant and educated about others, there still exists an intrinsic obstacle that cannot be avoided: translation of texts and interpretation of live conversation.

Raymond Cohen outlines many of the issues that are presented when attempting to negotiate with other countries:

> Between human beings, unlike computers or radios, the difficult question is whether the receiver is able to discern the ideas contained within the message, the intention behind the words [...] For a message to be correctly understood there must be sufficient similarity, if not identity, between the intention of the sender and the meaning attributed by the receiver. 18

There are multiple reasons why other parties may not properly receive the intention of a message. Many experts focus on the problem that differing cultures presents when translating. Lorand Szalay shows how the meaning of each word can be perceived differently due to innate cultural differences:

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18 Cohen 20.
Cultural meanings are basically subjective meanings shared by members of a particular cultural group. People in each country of the world develop their own particular interests, perceptions, attitudes, and beliefs, which form a characteristic frame of reference within which they organize and interpret their life experiences...Different cultural experiences produce different interpretations not shown in conventional dictionaries.¹⁹

These cultural differences have caused translational and interpretational mishaps in many different settings. Public figures often try to speak another language in order to appear like they are attempting to really forge a bond and understand one another. Their translation may seem accurate based on their native language, but can take on completely different meaning given the cultural significance and values that have developed. It could even be as simple as a mistaken reference to something timely in that society.

Diplomacy.edu cites examples of each of these incidences. First, they provide a cultural meaning-misunderstanding: “One American airline operating in Brazil advertised that it had plush ‘rendezvous lounges’ on its jets, unaware that in Portuguese (the language of Brazil) ‘rendezvous’ implies a special room for having sex.”²⁰ The second example is an easily avoidable marketing error made by Colgate in France, who named a new product “Cue” before they realized that this was also the name of popular pornography book at the time.

Because of the different ways cultures have developed compared to one another, as well as subcultures within a country, meaning is often

¹⁹ Cohen 21: Lorand Szalay.
misconstrued. In a dialogue, people's perception of what is meant by a single word can be drastically different. A.B. Bozeman of Princeton University says that diverse people are often "[…] speaking of different things even while uttering the same words."\textsuperscript{21}

Meaning of a singular word in two different languages can vary drastically depending on the inherent cultural attributes that have led each group to perceive the same word in different ways (cross-cultural ambiguity). We can see this in the example of negotiations between the United States and the Soviet Union to ban nuclear testing from 1958 to 1963. The difference in meaning of the word 'control' between English and Russian caused great misunderstandings. The Soviets take 'kontrol' to mean verification or supervision, as opposed to the Americans who think of 'control' more as command over something.\textsuperscript{22}

These different connotations caused confusion when terms like 'arms control' were used. The Soviets took American use of 'control over armaments' when translated to mean retention or increasing arms as opposed to supervision over them, which is what the Soviets phrased as 'control over disarmament'.\textsuperscript{23} This translation ambiguity over one word thus drastically impacted the tone, expectations, and pre-assumptions of all negotiations. Jönsson concludes this example by saying, "[...] it is questionable whether the two sides ever talked about the same thing. The

\footnotesize{\textsuperscript{21} Jönsson 37: A.B. Bozeman.\textsuperscript{22} Jönsson 130.\textsuperscript{23} ibid.}
very word evoked different associations embedded in culturally conditioned
codes [and] varying conceptions of control affected American and Soviet
signaling during the negotiations [...]”

Another significant problem for translation and interpretation is the fact that there is an inherent metaphorical nature to any language, and the way that people process entire concepts varies. This is a natural part of how most people, including and sometimes especially diplomats, conceptualize perceptions and communicate them. In order for metaphors to be functional, the understanding must be shared between the parties communicating. “[If] the actors in international bargaining proceed from divergent metaphorical understandings of internal relations and the issue at stake, communication will be problematic.” Translating metaphors will prove to be a significant problem for interpreters.

Like metaphors, idiomatic phrases are not possible to process across cultures and lose all meaning if interpreted or translated literally. This is a common occurrence in beginning language classes. Students are unaware that a phrase is idiomatic in their own language and attempt to translate it literally into the other language. An example that I recall vividly is a student translating the familiar expression ‘good call’ literally into the German ‘guten Anruf’ (meaning ‘good telephone call’), which elicited a chuckle from the instructor.

24 Jönsson 131.
25 Jönsson 35.
Similarly, categorization is an innate human process. From a linguistic perspective, categorization is necessary for certain words to be meaningful and allow the brain to process without overloading. For example, each kind of chair is very different, but we have the category of ‘chair’ engrained into our understanding and, therefore, when we see a type of chair we may have never seen before, we still recognize that it is a chair and what its function is. Wilder and Cooper explain, “[the] sheer quantity and diversity of available information is beyond the processing capabilities of our cognitive system. To maximize cognitive efficiency, we impose structure on the phenomenal field by organizing features of the environment into meaningful clusters or categories.”

Because categorization is based on our own personal interaction with the environment, there can exist differences among individuals’ categories, especially among diplomats of different cultural backgrounds. Since the environment of negotiators from one nation is more similar than among negotiators of different locales, effective communication can be difficult. This is largely an issue because categorization is so inherent that the sender of a message is often unaware that his/her terms are not as obvious as intended.

It is important to note that interpreting the causes and motives of each diplomat is also a significant issue, although this is different than the meaning of singular words. “When a diplomat interprets his interlocutor’s language and even single words used in a dialogue or correspondence, he

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always starts from the presumption that the choice of words and phrasing has been conscientious and deliberate.”

More than just the meaning of words, negotiators must infer the intentions and motivations of each action taken by one another. It is up to the individual to deduce these motives based on knowledge of the other parties’ background, interest and implicit intentions, but this can be made even more difficult when it is first necessary to translate the meaning of each word.

The world is growing more and more interconnected and thus more complex each day. New terms are constantly emerging to accommodate these changes. This means that more terms are being used in diplomatic settings and must be interpreted. Former Ambassador to Germany Kishan Rana cites “fair trade” and “social standards” as two new terms that are not able to be literally translated and retain their meaning. Since it is clear that language presents a problem with efficiency and effectiveness of diplomatic meetings, the next section will outline the possible solutions to the language problem.

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Solving the problem of multiple languages

Ambassador Stanco Nick outlines the possible solutions to language barriers in a diplomatic situation. He suggests first that an interlocutor know two languages. This option is not sufficient in large meetings with multiple parties. Furthermore, knowledge of another language at a basic level is not enough to ensure that the intention of these important messages is being properly translated. Another option is to find a neutral language among all of the parties. This method presents the same problem as an interlocutor. Every diplomat in the conference may only have working knowledge of the chosen language, and thus misunderstand many of the subtleties of each message and improperly convey his or her own messages. An artificial language for diplomacy may also be created, such as Esperanto. This neutral language was created for negotiations in an attempt to not give a native speaker of one language an advantage. This is not a tactic that will be accepted by diplomats worldwide, due to the inherent complexities of language acquisition in adults.

Some organizations choose to narrow down the number of languages spoken and select what are commonly known as “working” or “official” languages. For publications, this may be sufficient, because people of any of these languages can understand them, and those without an extensive knowledge of the languages used can get enough information to have a

general idea. Using a working language, however, can be problematic in conferences or any face-to-face diplomatic meetings. Nick shows that “[…] delegates who do not speak the official or working languages well (or who are simply too self-critical about it) hesitate to take the floor at all, or miss the best moment to do so. Thus, they considerably reduce their own delegation’s input and probably also reduce the potential value of the final result of the meeting.”

Efficiency of meetings and effectiveness of outcomes is crucial to international diplomacy; therefore the last option, interpretation, is the method with the greatest likelihood of producing efficient and effective diplomacy must be selected. Interpretation is “[…] very widely used, particularly in multilateral diplomacy or for negotiations at a very high political level – not only for reasons of equity, but because politicians and statesmen often do not speak foreign languages.” The chances of multiple parties having enough understanding of one another’s languages to send and interpret messages as accurately as possible are very unlikely. As demonstrated above, ambiguity in language is so prevalent that basic knowledge of a language is not enough to communicate such important matters; thus proper translation/interpretation is crucial.

Lack of proper interpretation can have serious results. Strict literal translation as opposed to interpretation becomes fundamentalism, which is strict adherence to literal meanings (as can be seen in religious

30 Nick 43.
31 Nick 40.
fundamentalists and fundamentalist readers of the Constitution).

Fundamentalism produces fixed beliefs, assumptions, and predictions that make negotiation very inflexible and thus extremely difficult. On the opposite side, there could be too much interpretation. Rhetoric expert Benoit Girardin explains that in this situation, “[any] statement is considered entirely subjective and therefore not able to provide some lasting ground for any agreement or any memorandum of understanding.” Too much of a focus on interpretation and constant questioning severely hinders negotiation. The following section will clarify the difference between translation and interpretation, before the discussion on the best methods for each.

**Translation vs. Interpretation**

There are many settings where translation and interpretation are necessary. Typically, translators are used for texts, whereas interpreters are used for live conversations. As seen in previous sections, there are many factors that affect the success of messages being properly received by speakers of other languages. Diplomats communicate through written documents as well as in person. Governmental institutions, diplomats, and businesses all require the use of translators and interpreters. There are two

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32 Benoit Girardin, “Language Setting the Stage for Diplomacy; Diplomacy Based on Interpretation, Rhetoric and Ethics; Philosophical Considerations”, *Language and Diplomacy*, ed. Jovan Kurbalija and Hannah Slavik (Malta: DiploProjects, 2001) 144
possibilities to achieving these desired ends: machines and humans. While machines have proven to be extremely desirable for translation due to speed and cost-efficiency, they cannot be substituted for humans in live settings where interpreters are required.

**Machine Translation**

Machine translation (MT) is a growing field in today’s world. Due to the rampant globalization that has been occurring, the need for language translation has significantly increased in the past decades. Development of machine translators began in the 1950s and the technology has been improving ever since. A timeline provided by *Wired* Magazine shows the progress from a mere 250-word capability to 30,000 in thirty-six years. Because of its multi-faceted and difficult nature, this technology employs many specialists:

> [It] turns out that really good MT is so hard to pull off that the task exhausted the top-end computing resources of every generation of the Net. Today, all over the world, software designers, programmers, hardware engineers, neural-network experts, AI specialists, linguists, and cognitive scientists are enlisted in the effort to teach computers how to port words and ideas from language to language.33

Despite cutbacks in the past, there continues to be support for the further research and development of such systems.

There are numerous advantages to using machine translation. The first benefit is low cost. Systran, one of the oldest machine translation

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companies, provides the statistic that “[...] humans can translate 2000 – 3000 words a day, while Systran’s MT software can translate 3700 words a minute.”34 This drastic speed disparity is undeniable, and speed means saving money. In terms of large amounts of text translations, machines are cheaper. Although the dictionaries must be regularly updated, which does require constant investment, it is cheaper in the end to use machines for very large texts than a professional translator who would charge per page. The speed of mechanical translation also has partly to do with the memory of the machines and their ability to store previous documents and phrases that have been translated.35 A second benefit is confidentiality. Dilmanc translation service promotes its electronic translation system by saying that it is more confidential to translate emails electronically than going through a human.36

Yet machines are the best choice for translating only in certain circumstances. Specific types of texts are the best candidates for machine translation, given the above benefits: cost efficiency of large texts, speed, and memory. Mechanical translation “[...] is ideal for large scale and/or rapid translation of [...] technical documentation, (highly repetitive) software localization manuals, and real-time translation of weather reports.”37

35 “Machine Translation”
Machines can translate texts that have limited topic diversity or are predictable because they can be programmed just once for the topic and used multiple times. Predictability and limitedness is crucial for this programming because it relies on the simplified vocabulary and lack of ambiguity in meaning.

There are many other day-to-day uses for computerized translating systems, such as for websites and personalized devices – phones, MP3 players, and GPS systems. The technology available to provide extensive databases of other languages has come a very long way. These devices are fast and relatively accurate for basic everyday needs. Despite improving progress and the multiple advantages, though, there are many limits to this technology, especially in settings where accuracy in interpretation is crucial.

**Shortcomings of Machines**

Machine translation is not appropriate for live conversations because they are particularly difficult to interpret. Linguistic factors, such as ambiguity and metaphors, which influence diplomacy, are the dominant reason why human interpretation is necessary in negotiation of diplomatic nature. Transclick, a global translating service, explains how computers produce very literal translations that may seem more awkward compared to...

a human translation.\textsuperscript{38} Similarly, Dilmanc adds that “machine translation is based on formal and systematic rules so sometimes it can’t solve ambiguity by concentrating on a context and using experience of mental outlook as a human translator”.\textsuperscript{39} These computerized translation services advertise the effectiveness of mechanical translation in the situations described above, but recognize its shortcomings for other situations.

Diplomacy and international negotiation involve many culturally sensitive and specific issues. Dictionaries and machines are not capable of dealing with this type of ambiguity in diplomatic negotiations. Professor Alan Melby explains this in his article “\textit{Why Can’t a Computer Translate More Like a Person?}:

\begin{quote}
Being a native or near-native speaker involves more than just memorizing lots of facts about words. It includes having an understanding of the culture that is mixed with the language. It also includes an ability to deal with new situations appropriately. No dictionary can contain all the solutions since the problem is always changing as people use words in unusual ways.\textsuperscript{40}
\end{quote}

There is a great gap of understanding that mechanical translators have not bridged. Negotiation is fast-paced, linguistically- and culturally-sensitive, and extremely dependent on accuracy.

\begin{thebibliography}{9}
\bibitem{39} “Advantages and Disadvantages of Machine Translation”.
\end{thebibliography}
**Human Interpretation**

Despite the many uses for machines in the world of translation, and great improvements to the technology, there is no substitute for human interpreters in live diplomatic meetings. As demonstrated in earlier sections, the nature of spoken language is full of subtleties and ambiguity such that it makes proper reception of intended messages very difficult. Written language that can be easily translated by machines is specific in topic and most likely has been carefully thought-out and edited before being sent for translation. Speech, the medium for debate in diplomatic meetings, is not so straightforward and calculated. Interpreters must deal not only with the inherent ambiguities of language and cultural influences, but also with speech style and accents. Further, they must have a sufficient background in the topic in order to be prepared for the right context in which they are interpreting. Machines lack this context and can only be programmed for inflexible types of translations.

Interpretation in diplomatic setting is thus extremely precise. The nature of diplomatic meetings is such that the interpreter must himself have a working knowledge not only of standard diplomacy but also the specifics of each meeting or general situation. Aldo Matteucci, former deputy secretary general of EFTA (European Free Trade Association), describes the difficulties diplomats face in relation to language. The interpreters largely feel these difficulties when diplomats speak other languages:
Language yields an incomplete sense of the speaker’s meaning as well as of his intent. [...] Language also comes with hidden baggage, baggage of many shapes and forms: historical and political context, legal precedent, whatever, that shape the words’ content. Understanding the words’ content is thus a second task of a diplomat.⁴¹

An interpreter in a diplomatic situation is not necessarily a literal translator. There are so many important factors to take into account when providing the translation.

The role of the interpreter "[...] is an engaged one, directed by knowledge and understanding of the entire communicative situation, including fluency in the languages, competence in appropriate usage within each language, and in managing the cross-cultural flow of talk."⁴² An interpreter must take on both the role of a linguist and a diplomat. Linguistically, he/she must be able to understand and convey the subtleties of a language, have a working knowledge of idioms and other linguistic factors that make literal translation insufficient, keep up to date with new language rules and additions. Diplomatically, they must understand cultural factors that influence language and have thorough diplomatic contextual understanding.⁴³

There exist many causes of failure in transferring meaning, as previously explained, including ambiguity, accents, metaphors, and framing.

Language, especially in negotiation, is such that only humans are capable of interpreting meaning as accurately as possible in live conversations. The linguistic factors outlined, such as metaphors and ambiguity, are just some of the major issues that interpreters must face. Currently, machines are not capable of providing non-literal translations, which means that metaphors, idioms, and ambiguous statements would produce very odd sentences if a machine were translating live speech.

Furthermore, machines are incapable of discerning the proper context and cultural sensitivities. Human interpreters understand the nuances of cultural differences that would greatly affect the proper conveyance of meaning. For example, a diplomatic interpreter that focuses on Russian-English interpretations would have a grasp of the different connotation of the word ‘control’ (as used in a previous example), and thus be able to remove any cross-cultural ambiguity. A machine or someone without a full grasp of both languages and cultures would simply translate ‘control’ to ‘kontrol’ and vice versa.

Although a non-linguistic factor, speech style may greatly affect debates. Accents and dialects do not affect the process of written translations, and thus do not need to be considered when using a machine translator in these cases. However, in live discussions these factors are a huge barrier to interpretation, and only a human can handle them. Cremona and Mallia explain the many different problems that accents, dialects, and other speech differences may cause in a diplomatic setting:
Even a native speaker may have a heavy regional accent. Non native speakers generally have problems not only with accent but also with sentence structure, especially when they are speaking off the cuff during a round table discussion or workshop. [...] Certain speakers do not follow a single trend of thought and their speech is disjointed, with sentences ending in mid-air [...]. Fear of the microphone may lead speakers to mumbling and hesitation. 44

These are all factors that an interpreter must have very fine-tuned training to handle and are incompatible with machine speech-to-speech interpretation. The place for machines and humans is exemplified in a number of governmental and non-governmental settings. The following sections will provide specific examples of why humans are the best choice for live speech interpretation, beginning with the European Union.

Application in EU

The institutions of the European Union are a very good place to observe how multilingual interpretation and translations are utilized. The European Union is adamant about not imposing a singular language on all of its proceedings, because its twenty-seven countries have equal rights and therefore should be allowed to use their native languages. The authors of Translating for the European Union Institutions explain, “[the] languages of

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Europe are a part of its immense and diverse cultural heritage, and they should be cherished.\textsuperscript{45}

Each segment of the European Union governing bodies employs many translators. Translating for the European Union Institutions provides the specific numbers for each branch. This data is specifically on translators of written texts. Although this paper focuses on live interpretation, it is important to notice how reliant the European Union is on human translators in comparison to machines, which these authors do not even mention. The breakdown is as follows (the two blank spaces indicate an insignificant percentile):

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|}
\hline
\textbf{Institution} & \textbf{In-House Translators} & \textbf{% Of Work Done By In-House Translators (Not sent to free-lance)} \\
\hline
European Parliament & 410 & 72\% \\
Council of the EU & 640 & \\
European Commission & 1300 & 80\% \\
European Court of Justice & 230 & 88\% \\
& Court of First Instance & \\
European Court of Auditors & 62 & 95.5\% \\
European Central Bank & 30 & 25\% \\
Joint Services of the Economic and Social Committee & 198 & \\
& Committee of Regions & \\
European Investment Bank & 26 & 70\% \\
\hline
\end{tabular}
\end{table}


\textsuperscript{46} Wagner 15-22.
Machine translation does have a place in the European Union. The institutions of the EU require all these translators for each of the texts to be made accessible to citizens of the member states that speak many different languages. The documents that are published in the official languages are sometimes produced with the aid of machines.47

The Informationsdienst Wissenschaft news organization of Germany reports that Prof. Dr. Hans Uszkorei of the University of Saarland is heading the project to create a machine translator for all twenty-three languages of the European Union.48 Part of this plan is to include competition between major mechanical translator services in Europe to ensure that the best technology is being used. This system of translation is geared specifically for the translation and distribution of texts. As previously demonstrated, machine translation does provide many advantages when dealing with text-to-text translation. The European Union Institutions can save money and time by using computers for these tasks. However, it is impractical to attempt to bring machines into use in live speech-to-speech interpretation in diplomatic meetings.

Interpretation in negotiation is a very different and complex task. The European Parliament outlines the responsibilities of its interpreters:

The main task of the European Parliament’s interpreters is to render orally the speeches given by MEPs [Members of European Parliament] faithfully and in real time into all the official languages. Interpreting services are provided for all multilingual meetings organised by the official bodies of the institution. Whereas translators work with the written word, translating documents into the various languages in which they are required, interpreters are there to ensure that meetings can take place smoothly as if everyone present were speaking the same language.49

The institutions of the European Union thus recognize the important difference between hiring translators and interpreters. Furthermore, the European Commission has a Directorate General for Interpretation. Because of the nature of the EU, interpretation is an ongoing need. The DG Interpretation provides some essential statistics about their operations:

- 500 staff interpreters
- 300 - 400 freelance interpreters per day
- 2700 accredited freelance interpreters
- 50 - 60 meetings per day
- 10,000 – 11,000 meeting days per year
- ±135,000 interpreter days per year
- 40 major Commission conferences organized per year.50

Since the meetings conducted in all of the European Union Institutions include representatives from a large number of nations, a large staff of skilled

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interpreters is essential to the day to day functioning of each branch. This is not to say that the translators are not important as well. It is vital that citizens of the member states receive information and that literature is made available in their own language. In comparison, this process is far less demanding and precise as live language interpretation, due to the specific characteristics of language that make understanding one another so difficult.

Not surprisingly, there is a great need for new interpreters as the European Union expands and encompasses more nations that speak more languages. Interestingly, the EU is actually in the most need of English interpreters. Due to the near-retirement age of those interpreters who joined after the accession of England and Ireland, the institutions are going to soon be short interpreters that speak English and another language. EU Business reports “EU Institutions will lose at least a third of their English language interpreters by 2015 due to retirement and about half in the next ten years.”51 The lack of English speakers has also partly to do with the fact that many feel no need to learn or enhance skills in other languages.52

Other Governmental Applications

Translation and interpretation is necessary in other governmental workings apart from standard diplomatic meetings. Given the style of

52 “Expanding EU desperately seeing interpreters”, 
modern warfare, the US Military is in constant need of interpreters and translators on the ground in other nations in order to make it easier to do their jobs. Because of the constant shortage of human personnel, some troops have been provided with speech-to-speech computerized translators in Iraq. International Business Machines Corp. (IBM) has furnished these devices to help aid combatants and medical personnel on the ground in areas where there is a great need for basic translation and a severe lack of human interpreters.

IBM has made significant improvements in the field of machine translation. David Nahamoo, chief technology officer for human language technologies at IBM’s research business, explains how this device recognizes variations in different speaking styles, including word order, sentence structure, and grammatical variations. He says that machine translators have the capability of translating “[...] more than 50,000 English words and 100,000 words in Iraqi Arabic”.53

But IBM recognizes the shortcomings of machine translation for settings where important decisions are to be made: “For now, however, it will not be used in combat or conflict situations that require split-second communications and decision-making [...]”.54 The company has worked to dramatically increase the accuracy by providing up to three choices of

54 “US Forces in Iraq to test IBM translation device”.
translations that the user may select. With continued modifications, Nahamoo hopes to see this product being used on a larger scale—such as for tourism, banking, and policing.

**Non-Governmental Applications**

International businesses function in similar ways as governments. They have meetings within their company, conduct business with outside vendors, deal with lawyers, lobbyists, and politicians, and must communicate to the general public. In today’s extremely interconnected world, all of these interactions involve people of many different native languages. Each company must choose how to best operate, given the language diversity involved.

One choice is to require all employees to speak one language. Mars, Inc. provides English training for all non-native speakers so that the company’s employees can communicate amongst one another without hired interpreters. Native English speakers often help edit emails or documents of their fellow employees who have learned English as a secondary language. For example, if employees in their office in Strasbourg, France were working with a French Internet vendor, they would need to be able to draft a proposal to Mars headquarters in America (in English) before proceeding.

Because of the dictatorial nature of companies, bosses, presidents or CEOs can require that their employees learn English. This setup does not
apply to diplomatic settings because there is no “worldwide CEO” that can force everyone to fluently learn another language. Even if this were possible, it would require a full understanding of that language’s cultural background in order to understand metaphors and idiomatic expressions.

As far as meetings are concerned, there is marked level of ambiguity produced by non-native English speakers having to attempt to translate on their own. For the most part, meaning is not obscured enough to hinder the process or outcome of meetings. If there was not an English policy, companies like Mars, Inc. would surely have to hire translators and interpreters in order for their many global branches to communicate with one another.

Many businesses hire interpreters for international meetings from companies that provide interpreters. Like diplomatic negotiations, business meetings have very important and specific agendas that require precise translations. The specialized technical nature of such meetings prevents machines from being effective replacements because they would have to be specifically programmed for each topic and account for ambiguity. One such company who provides interpreters for business meetings, Kwintessential of London, outlines the qualifications of their interpreters that reinforces how necessary it is to use a human instead of a computer:

All our business meeting interpreters are talented linguists with an understanding of how business works and what is needed to promote clear lines of communication between parties. On top of their interpreting skills, our interpreters also bring with them an insight into the cultural nuances of a particular country/culture and can act
as a superb point of reference to help overcome potential cross cultural obstacles.\textsuperscript{55}

Although this particular company does not specifically state ambiguity as a reason why machines are not suitable replacements, it is clear that they acknowledge the many facets that are involved when two people of different languages are communicating with one another, such as the cultural nuances.

In an attempt to bring machine interpretation technology into the hands of the public, Google has announced plans for the development of speech-to-speech interpretation software for cellular phones. The head of Google’s translation services, Franz Och, believes that the voice recognition hurdle is one that the company can overcome, according to Times Online.\textsuperscript{56} He has no proof of this, just a belief in the advancement of technology.

However, honorary linguistics Professor David Crystal of Bangor University provides a less optimistic outlook on this capability: “The problem with speech recognition is the variability in accents. No system at the moment can handle that properly. Maybe Google will be able to get there faster than everyone else, but I think it’s unlikely we’ll have a speech device in the next few years that could handle high-speed Glaswegian slang.”\textsuperscript{57} These non-diplomatic examples of where machines and humans have their place in


\textsuperscript{57}Chris Gourlay.
interpretation further prove that diplomatic negotiations require human interpreters.

Conclusion

Technology is advancing at an extremely rapid pace in today's world. Although more and more governments, organizations, and individuals are beginning to rely on technology to replace manual labor in many sectors, there are certain instances in which a machine simply cannot replace a human. The nature of multi-language diplomatic meetings is such that one or more humans are required to provide the most accurate interpretation possible.

Diplomatic negotiations are time-sensitive and the meaning of messages must be transferred and received properly in order to avoid dangerous and undesirable agreements and events from occurring. To interpret such a meeting, a person or machine would have to have full knowledge of the topic at hand, the background positions of the members, the capability to discern accents, mumbling and dialects, awareness of idioms and metaphors, and the ability to notice and resolve ambiguities.

As with any dialogue, the inherently ambiguous nature of language makes it difficult to receive the proper message even within one’s own language. Adding the need for interpretation only greatens the chance that meaning will be skewed. Although they are perfectly suitable for specific
large-scale textual translations and basic personal use, machines are not yet able to handle all of these linguistic factors, as demonstrated in the European Union, United States international relations, and in non-governmental situations. The conclusions of this paper confirm the need for human interpreters as the most accurate tool available for international negotiations.
Summary

The heart of effective international relations is dialogue. In today’s very interconnected world, cross-globe communication is not only possible but also nearly instantaneous. This only facilitates the ability of diplomats to communicate with one another. Despite technological advances however there are still inherent aspects of language that cause some problems with diplomacy.

Inefficiency and ineffectiveness of negotiation can stem from numerous sources. Political alignment, religion, race, language and economics, as well as motivation, approach, and emotion are all very important factors that naturally change the nature and outcome of a debate. These issues naturally affect the tone of speech and the perception of messages being received. Debates taking place within one’s own language are riddled with problems given the nature of how words carry more than one meaning and how easily the tone of the negotiation can be altered by simple shifts in wording and speech tactics. Although cultural factors are reasons for problems with interpretation and have tangible effects on the process of negotiation, a thorough understanding of the problems with international negotiation must include the fact that the ambiguities in one’s own language are the underlying linguistic problem for interpretation and misunderstanding issues. When a meaning is so uncertain within a native language, there is little chance of the message being properly conveyed in

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58 Cohen 8-11.
another language, no matter the receiving culture or interpretation services used.

When multiple languages are being used, the possibility of misunderstanding and thus inefficiency is greatly increased. There are numerous potential options for solving the problem of debate among people of different mother tongues. Although each option has certain merits, the most effective method that would produce the maximum understanding amongst participants is human interpretation.

The process of interpretation and translation, be it by machine or humans, is severely reliant on being able to decipher intention. Mechanical translation devices have an important place in organizations and businesses, but only when dealing with straightforward written text translations. Despite many improvements, machines cannot be appropriate substitutes in diplomatic situations.

Interpreters must work under the pressure of fast-paced negotiations while being certain they are conveying the subtleties and proper meaning of the message from the sender to the receivers. This requires extensive research about the current topic of discussion in each session and a thorough understanding of the nuances of both languages being used in order to deal with ambiguity, which only humans are able to do accurately.

The European Union employs a number of methods to reconcile all of its citizens’ languages. Each institution employs a large number of both translators and interpreters. The translators are responsible for the official
EU documents that must be produced in each of the official languages. It is in these circumstances where some machine translation may be appropriate. In actual crucial negotiation, it is the job of skilled interpreters to ensure that each representative's intentions are being properly conveyed.

Other governmental and non-governmental organizations employ both machines and humans for translation and interpretation. Similar to the European Union, these organizations recognize that human interpreters are necessary when meaning is crucial and many ambiguities are possible.

The extremely delicate nature and severe importance of diplomatic negotiations prevents the possibility of allowing machines to be used in the place of human interpreters. Since ambiguity is the cornerstone of linguistic issues in multi-nation negotiation, and machines have not been proven to be effective enough at deciphering and properly translating ambiguous statements, it is extremely unwise to consider replacing humans with machines in diplomatic meetings.