The Role of Ambiguity in Arabic Language

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Abstract: This paper highlights the vital role of ambiguity in language. In addition, it shows the effect of ambiguity on some field; it can add a vagueness to make the listener confused, or it add a touch of beauty to make the listener happy, in the opposite sometimes it has bad effect on others. In the field of intercultural communication, ambiguity led to misunderstanding that cause a breaking down of the relationship among communicators. To avoid these mistakes that occur as result of ambiguity the learners should to know how to solve these issues. It has been recognized that the learners of Arabic language as a foreign language encounter with Arabic sentences which involve lexical and structural ambiguity difficulties. This study explains how to solve these problems by providing some examples from Arabic language. To sum up, the ambiguity in Arabic language is more problematic than others. By providing some example on how to disambiguate these sentences the learners of Arabic as foreign language will achieve the goal of communication.

Keywords: ambiguity, Arabic language, Computational linguistics, peace agreement.

1. Introduction

Ambiguity is a pervasive phenomenon in language which occurs at all levels of linguistic analysis. Word, phrase, or sentence is ambiguous if it has more than one meaning. Ambiguity can be recognized; these include grammatical (or structural) ambiguity in a phrase like “new houses and shops” which could be analyzed as either “new {houses and shops}”, i.e. both are new, or “[new houses] and shops”, i.e. only the houses are new. Another major type of ambiguity is the semantic (or lexical) ambiguity which might be viewed in a sentence like “Visiting speakers can be awful”, which is interpreted in two different ways. The first interpretation is “It is awful to visit speakers whereas the second one is “Speakers who visit are awful”.

2. The role of ambiguity

The existence of ambiguity provides a puzzle for functionalist theories which attempt to explain properties of linguistic systems in terms of communicative pressures (e.g. Hockett, 1960; Pinker & Bloom, 1990). One might imagine that in a perfect communication system, language would completely disambiguate meaning.

The effect of ambiguity is different from one to another field, so some fields it added a vagueness to make the listener confused, other fields it added a touch of beauty to make the listener happy, but in some situations, it causes serious problems. This paper will discuss the effect of ambiguity in three different fields such as computer linguistics, Literature, peace agreement, Psychoanalysis. In addition, it will explain the role of ambiguity in each field.

2.1 Ambiguity and Computational Linguistics

Computational linguistics is a study of the natural languages such as Arabic, English, rather than computer languages, for example; C++, or Java,
Fortran C++. This field has two aims: To enable computers to be used as aids in analyzing and processing natural language, and to understand, by analogy with computers, more about how people process natural language. One of the most significant problems in processing natural language is the problem of ambiguity. Most ambiguities escape our notice because the human beings are very good at resolving them using context and their knowledge of the world. But computer systems do not have this knowledge, and consequently do not do a good job of making use of the context.

The problem of ambiguity arises wherever computers try to cope with human language, as when a computer on the Internet retrieves information about alternative meanings of the search terms, meanings that we had no interest in. In machine translation, for a computer it is almost impossible to distinguish between the different meanings of an English word that may be expressed by very different words in the target language. Therefore, all attempts to use computers alone to process human language have been frustrated by the computer's limited ability to deal with polysemy. Efforts to solve the problem of ambiguity have focused on two potential solutions: knowledge-based, and statistical systems. In the knowledge-based approach, the system developers must encode a great deal of knowledge about the world and develop procedures to use it in determining the sense of the text.

In the statistical approach, a large corpus of annotated data is required. The system developers then write procedures that computer the most likely resolutions of the ambiguities, given the words or word classes and other easily determined conditions. The reality is that there no operational computer system capable of determining the intended meanings of words in discourse exists today. Nevertheless, solving the polysemy problem is so important that all efforts will continue. It is a fact that the achieving this goal, it will help the human beings to be close to attaining the holy grail of computer science, artificial intelligence. In the meanwhile, there is a lot more to teach computers about contexts and especially linguistic contexts.

2.2 Ambiguity and Literature

The general idea about language that it is as a clear and literal vehicle for accurately communicating ideas. But even when using language literally, misunderstandings arise and meanings shift. People can be intentionally or unintentionally ambiguous. Nevertheless, when someone uses a potentially ambiguous sentence or expression, usually the intention was to express only one meaning. Most words can have denotations, apparent meanings, connotations and implied or hidden meanings. Also, we often use words in a figurative way. Even though figurative language is more often used in poetry and fiction, it is still very common in ordinary speech.

Ambiguity is a poetic vehicle. It is human nature to try to find meaning within an exchange. A text is given to us and in return we give our interpretation. Our own associations give understanding of what is presented to us. A characteristic of the late twentieth century, as well as of postmodern literature, is that certainties are continuously called into question, and thus allegory becomes a suitable form for expression. Allegory is a classic example of double discourse that avoids establishing a center within the text, because in allegory the unity of the work is provided by something that is not explicitly there.

In contrast to symbols, which are generally taken to transcend the sign itself and express universal truths, allegories and metaphors divide the sign, exposing its arbitrariness. Thus the allegorical impulse in contemporary literature can be seen as a reflection of the postmodern emphasis on the reader as co-producer, since it invites the reader's active participation in making meaning.
Metaphors are indeed highly appropriate postmodern devices, because they are obvious vehicles for ambiguity. A living metaphor always carries dual meanings, the literal or sentence meaning and the conveyed or utterance meaning. A metaphor induces comparison, but since the grounds of similarity are not always given, metaphors serve to emphasize the freedom of the reader as opposed to the authority of the writer.

Historically we can point to De Saussure as initiating the discussion related to the arbitrariness of the sign as described in his “Course of General Linguistics”. The signifier may stay the same but the signified will shift in relation to context. In terms of change over time, Saussure states “whatever the factors involved in [the] change, whether they act in isolation or in combination, they always result in a shift in the relationship between the sign and the signification.” (Saussure, 1983, p. 75).

Taking into consideration why all the aforementioned could be considered as a curse, no example of literature better serves than the Bible. This special book, because of its central place at the heart of three of the world's most important religions, has been subject to enormously detailed scrutiny over the centuries in an attempt to glean meaning and to determine "once and for all" the proper way of living and worshipping. Persecution and oppression have resulted from these interpretations, whether done in the true belief of the of the heretics' evil nature or by cynically using the Bible for political purposes, as Hitler did in his attempted annihilation of the Jews.

Where are the Cathars? Where are the Huguenots now? There is no doubt that these people, were any still surviving, would view the ambiguity of language as a curse, for their interpretations of the Bible were viewed as heresy, and they were extinguished because the same Bible was read in different ways by different men.

2.3 Ambiguity and peace agreement.

Despite the fact that ambiguity in language is an essential part of language, but it will be in other fields as obstacle and it will create problems such as law specially in the constructive ambiguity, it is a term generally credited to Henry Kissinger, said to be the foremost exponent of the negotiating tactic it designates. It refers to the deliberate use of ambiguous language on a sensitive issue in order to advance some political purpose.

Constructive ambiguity is often disparaged as fudging. It might be employed in a negotiation, both to disguise an inability to resolve a contentious issue on which the parties remain far apart, and to do so in a manner that enables each to claim obtaining some concession on it. It warrants further hopes that the ensuing postponement of resolution on this particular point, in a way that causes neither side excessive discomfort, will enable them to make real progress on other matters. If this progress takes place, the unresolved question might be revisited at a later date, if not voided altogether by the passage of time. On the other hand, since ambiguity in agreements can generate subsequent controversy, the likelihood of its employment proving constructive in comparison to further attempts to negotiate the point in question in clear terms, is a question best left for historians. For example, UN Security Council's Resolution 242, that The UN Security Council agreed on the text of the Resolution 242 after the crushing defeat that Israel inflicted on joint Arab forces during the Six Day War in 1967. As a result of bargaining between the powers sitting in the Security Council, the resolution reflected the deeply polarized political opinion. The provision of the resolution which prompted different and incompatible interpretations was the one immediately following the preamble of the text, reading: “establishment of just and lasting peace in the Middle East should include the application of both the following principles:

• withdrawal of Israeli armed forces from
territories occupied in recent conflict;  
- Termination of all claims or states of belligerency and respect for…territorial integrity…of every State in the area and their right to live in peace within secure and recognized boundaries.”  
The use of an unnatural English construction “territories occupied in recent conflict”, omitting the expected definite article “the”, made it possible to question whether Israel was asked to withdraw from all the territories occupied in the recent conflict, or to withdraw from some, but not all, such territories. Notably, the French translation of the document, unlike the English original, used the definite article, demanding the “retrait des forces armées israéliennes des territoires occupés lors durécent conflit”. Thus the French version, which together with the English version was an official UN version of the document, suggested that Israel must withdraw from all territories that it occupied during the Six Day War. Naturally, the French interpretation suited the interests of Arab countries, who made numerous attempts to prove its validity. By contrast, Israel opposed such an interpretation, and the sponsor of the resolution, Lord Caradon, appears to have had no intention of inserting the definite article into its text. Caradon additionally emphasized the additional and clarifying light that the second part of the first provision shed on its first part, and insisted that it must be given uppermost consideration. According to him, the boundary that existed before the Six Day War did not satisfy the right of Israel to live within secure and recognized boundaries. Consequently, under this interpretation, Israel did not have to withdraw to its pre-Six Day War borders.


Many of the ambiguities can be resolved by looking at the context. The linguistic contexture can resolve many of the ambiguities especially among different word classes. From the development point of view, processing and disambiguation of Arabic depend in the following sources of information:  
1. The lexicon: provides basic and initial information about lexical items (grammatical attribute).
2. Adjacency constraints: specify the compatibility or the incompatibility of two neighboring morphemes.  
3. The Idafa (The IDAFA construction is an important grammatical structure in Arabic. It is a genitive construction in which two nouns are linked in such a way that the second (second part of the construction) qualifies or specializes the first (first part of the construction) construct cannot be followed by a preposition.

A) A preposition cannot be followed by a preposition  
B) A noun cannot follow a noun unless it is an adjective or the second part of the idafa construct.
C) Morphological dependencies: describes the type and direction inflected from one constituent to another. As shown in Figure 1 a verb that follows the subject should agree in number and gender, thus the verb is morphologically dependent on the subject. On the other hand, the subject is morphologically dependent on the verb in case ending.  
D) Syntactic dependencies: determine binary relations between the lexical items in the sentence. In Figure 1, the verb hit is the head of two boys (subject) and Hani (object). As shown figure 1, it is not necessarily that the syntactic dependent of a head is also morphologically dependent. Hit and the two boys are exhibiting mutual morphological dependencies.
Figurer 1: example of morphological and syntactic dependencies

To demonstrate how the above information can be employed in disambiguation, consider the sentence shown in Figure 2. The ambiguity in the sentence is stemmed from the following two word forms:

Figurer 2: An example of ambiguity resolution

ذهب + ا they went (verb) or gold (accusative)

The disambiguation process is started by using the adjacency condition that a noun cannot be followed by a preposition إلى. Thus، ذهب (they went) is a verb (go) [MASC, DUAL] not a noun. Sami (سامي) is a named entity cannot be the subject of the verb as there are no morphological dependencies (agreement in number). On the other hand، a morphological dependencies exists between ذهب and صاحبا suggesting that it is (two friends) and that it is the subject. This solution is verified by the existence of a morphological dependency between صاحبا (two friends) and Sami: the suffix that indicates duality ending is (NOM)، but when the noun is the first part of the IDAFA construction the suffix should be which is the case in the above sentence. So، Sami is the second part of the IDAF construction.

In the sentence shown in figure 3، disambiguation is driven by syntactic dependencies.

figure 3: An example of ambiguity resolution

The verb (took) is the head of two dependents which are the subject and the object of (took). This is considered a NUCLEAR PROCESS that contains two participants in association with a process element. Following [2]، any additional constituent is either:

1. Indirect participant in a process.
2. Additional information about a condition or circumstances pertaining to a process.

In Modern Standard Arabic، both indirect participants and circumstances are realized by two basic types of grammatical structure:

1. Accusative nominals.
2. Prepositional phrases of various kinds.

This is left us with one solution to (کوارث) t is a prepositional phrase، meaning “like/such as + inheritor”. Thus، it should be segmented correctly by recognizing the first character as a preposition (ka) and the rest of the morpheme as the word" وارث (inheritor).

4. Conclusion

Ambiguity is an important topic worthy of consideration and exploration، and Language is a very complex phenomenon that cannot exist without ambiguity. It is a phenomenon that learners of Arabic may very possibly encounter in the course of their studies. There are quite a number of ambiguities ranging from syntactic through semantic and on to phonological. The
way how to solve the ambiguity is very important, it give the learners of Arabic as a foreign language a good command on Arabic syntax and semantics. This knowledge plays an exceptional role in the disambiguation of ambiguous phrases, utterances, and sentence.

References
