



FIRST YEAR STUDENTS' INTERPRETATION AND STRUCTURE OF AMBIGUOUS ENGLISH SENTENCES

RESEARCHERS: ROMEL L. TAGUMASI, PH. D.

LOUIE B. VILLANUEVA, PH. D.

ABSTRACT

Filipinos, who are fond of using English, generally do not use the language in a way native English speakers do. Thus, there are more possibilities of erroneous message transmission and/or misconception of the meaning intended by the speaker or source. This study sought answers to the following questions: What are the preferential interpretation and structure of students under global ambiguity and garden path? Do the students derive an interpretation from sentences under local ambiguity? This qualitative research involved 117 students of the Cagayan State University. The data were gathered by letting them give their interpretation of sentences with structural ambiguity. For global ambiguity, students have a higher tendency of interpreting an -ing form of verb as a participle or a modifier, especially when it is placed at the beginning of a sentence and when it has a dual role - either participle or gerund. Though they have high tendency of interpreting sentences based on the S-V pattern, they do not necessarily always interpret them as such; instead, they still have a high tendency of considering an -ing form of verb as a participle or modifier. They base their interpretation not only to the structure of the sentence but also to the most plausible meaning and to low attachment. They have high tendency of not being able to build an interpretation in locally ambiguous sentences.

KEYWORDS: *Ambiguous Sentences, Structural Ambiguity*

INTRODUCTION

For centuries, English language is being widely used by Filipinos – in homes, schools, businesses and almost all undertakings. In other words, English is already a part of the Filipino way of life.

However, despite its use for a long period, there are still many cases of misinterpretations due to some factors – the message itself, the sender, the receiver, the channel, the context, the noise, and all the other elements in the transmission of message (Florez, Carmelita, 2008).



Structural ambiguity is very common in language. Many of the sentences people process on a daily basis are either completely (globally) ambiguous or have local ambiguities in multiple places (Fernandez, Cairns, 2011). Besides the elements of transmission of the message, there are more specific causes of these erroneous or dual interpretations: syntax and morphology, lexicon, prosody and the way the parser operates. Syntax is said to be the arrangement or order of the words or phrases to make a sentence while morphology/morpheme is the internal structures or words. Lexicon is the embedded meaning of a word. Prosody is the patterns of stress and intonation in a language. The parser is the processor of the message in terms of structure; hence, parsing is the act of processing the structures of the message/sentence.

Since it is inherent for the many English sentences to have multiple meanings or erroneous structures (which are accepted), Filipinos, who are fond of using English, generally do not use the language in a way native English speakers do. Hence, there are more possibilities of erroneous message transmission and/or misconception of the meaning intended by the speaker or source. Processing a sentence involves recovering abstract mental structures which are based solely on the listener's knowledge of language, since the signal itself does not carry information about syntax. In writing, commas and periods help to indicate when clauses begin and end; in speech, prosody sometimes carries information about certain types of syntactic constituents (Fernandez, Cairns, 2011). However, in spoken communication, if a speaker does not use prosody to indicate pauses or beginning of another unit of thought, problem on the accuracy of information may arise. This is also true to written communication especially when the writer is not particular with punctuations.

The parser should not set aside structural ambiguity. This refers to sentences with two (or even more) possible meanings. The sentence – *The man saw the boy with the binoculars*- have two possible meanings. One meaning/interpretation is that, the man used binoculars in seeing the boy. Another meaning, following the rule of grammar on correct placement of modifiers, is that the boy had binoculars.



Structural ambiguity may be global (global ambiguity) or local (local ambiguity). Global ambiguity is seen in sentences which have two syntactic alternative structures. Such is like the sentence mentioned in the preceding paragraph. The prepositional Phrase (PP) *with the binoculars* is either a modifier of *boy* or an argument of the verb *saw*. There are instances when globally ambiguous sentences are not being processed accurately by parsers; so, misinterpretation of the message may prevail because the parsers usually do not notice the ambiguity.

On the other hand, there are sentences which may be ambiguous or confusing at the first or middle parts but tends to be disambiguated by their later parts or upon completion of the sentence. These are sentences with local ambiguities. However, the problem lies with parsers who stick to the basic or canonical sentence structure which is the S-V (-O) - Subject, Verb and/or Object. This, being the simplest structure and the default word order of English, may also cause troubles in the transmission and understanding of a text/message.

Parsers generally prefer minimal computational resources. According to the garden path model (Frazier and Fodor, 1978; Frazier 1987), the parser makes immediate decisions about locally ambiguous constituents, always opting for the analysis that requires fewer computational resources. The simplest structures are preferred because of minimal attachment.

In the Philippines, where English is generally the second language, speakers of this language indeed use sentences that are ambiguous. Despite these ambiguities, there is still convergence of thoughts and there is understanding between and among interlocutors.

Hence, this study sought answers to the following:

1. What are the interpretation and structure of students under the following cases?
 - a. Global ambiguity
 - b. Garden path
2. Do the students derive an interpretation from sentences under local ambiguity?



METHODOLOGY

This qualitative research involved 117 students of the Cagayan State University. The data were gathered by letting them give their interpretation of sentences with structural ambiguity. These sentences were presented through PowerPoint, showing them one sentence at a time. Each sentence, including the possible interpretations, was shown for 15-30 seconds. Each sentence in parts 1, 3, and 4 was shown for 25-30 seconds depending on its length and number of choices, while each sentence in part 2 was shown for 15-25 seconds, depending on the length. After the last second, the researcher would then proceed to the next sentence. Hence, the students would have written their answers. The purpose of setting time limit was used to avoid students' tendency to copy answers from their seatmates and/or take too long in building the interpretation. This is based on the reality that sentence parsing is not done at a long period i.e. ordinary conversation, reading.

The questionnaire includes (part 1) 10 sentences with global ambiguity and their possible interpretations, (part 2) 14 sentences - a combination of grammatically correct sentences (unambiguous ones), locally ambiguous sentences, and non-sense expressions. This is to test whether, after reading a sentence, a student would be able to build an interpretation to sentences that have local ambiguities, which should be the case. This questionnaire was validated by three experts in the field.

RESULT AND DISCUSSION

On Global Ambiguity

There are two possible meanings of the sentence below.

Flying planes can be dangerous.

Out of 117 respondents, there are 51 students who understood that the act of flying is the one dangerous, not necessarily the planes and 66 students thought that it is the planes that are flying that are dangerous. Hence, most of them interpreted that the *planesis* the subject of the sentence and is only an infinitive, used as its modifier. *Flying planes*, then, is understood by them as gerund phrase used as the subject (NP) in the sentence.



Of the 116 students who answered the item below, 42 interpreted that *Monty* is the subject (NP) and *flies* is the verb (VP) of the sentence.

Monty flies back to front.

Also, 45 of them construed that *Monty* is only a modifier of the subject *flies*. This is based on their interpretation "*The Monty variety of flies is backwards*". Along with this goes the sentence "*They are hunting dogs*". Many of them believed that *hunting* is only a modifier of the noun (compliment) *dogs*. This is based on the interpretation of 73 respondents which is "*Those dogs are a type known as hunting dogs*". Hence, the simple structure S-V does not always necessarily apply to many of the respondents. This does not necessarily go with the canonical pattern or structure of sentences mentioned by Fernandez and Cairns (2011). They interpreted the latter sentence as having a structure S-LV-C, instead of S-TV-DO.

They are hunting dogs.

S LV C

They are hunting dogs.

S TV DO

It is also evident that students interpret ambiguous sentences based not solely and strictly on the grammatical structures of a sentence but also on the most plausible meaning. The sentences below contain structural ambiguity.

John saw the man on the mountain with a telescope.

The cow was found by a stream by a farmer.

Applying the basic rule of writing modifiers in the correct placement, the parser should interpret the first sentence above in a way in which it is the stream that found the cow because the prepositional phrase (PP) *by the stream* is the nearer phrase modifier of *found* than the (PP) *by the farmer*. However, the meaning preferred by the students is that it is the farmer that found the cow, which is more plausible than the first interpretation. This is also true to the second sentence above. Though it is the mountain that is near the (PP) modifier, 96 students preferred to modify the man with *the telescope*.

Another instance that supports this is the sentence below:



The man was standing by the dog with a chew toy.

Sixty-four students preferred the meaning that it is the man who has the *chew toy* and not the dog, though *dog* is nearer in the (PP) modifier *with a chew toy* than *man*. However, it is yet to be studied why the students chose the interpretation which says that it is the man who has a chew toy.

In contrary, students also chose the structure where the nearer phrase or expression is the one that modifies a word/phrase.

I'm glad I'm a man, and so is Tim.

I know more beautiful women than Kylie.

The sentences above also prove that at times, students set aside the plausibility criterion in choosing a meaning; instead, they attach the modifier to a word nearest to it. There are 49 students who chose the interpretation of the first sentence as "I'm glad because Tim and I are both men." This means that they attached "and so is Tim" with the nearer word "man" and not with "glad" though it is also plausible.

This is also evident in their responses in the second sentence. Ninety-two of them interpreted it as "There are more beautiful women than Kylie." Hence, they attached *than Kylie* with the closer phrase, *beautiful women* and not with the verb *know* which is also plausible.

It is in the sentence below where the concept of the preference of the simplest sentence structure is observable among students.

The students told the professor that everyone hated a lie.

Out of 117 students, 101 said that it is the *lie* that is being hated by the students and not the *professor*. Hence, the S-V, which is the canonical pattern, is being used. Its pattern then is as follows:

The students told the professor (that everyone hated a lie).

S TV IO dependent clause (as DO)

Only 16 of the respondents said that it is the professor that is being hated. Hence, the structure of the sentence for them is as follows:



The students told the professor(that everyone hated)a lie.

S TV IO dependent clause DO

Notice that the function of the expression *a lie* in the two sentences above varies. *A lie* in the first sentence functions as the direct object of the verb *hated* of the dependent clause *that everyone hated* while *a lie* in the second sentence functions as the direct object of the verb *told* of the sentence.

On Local Ambiguity

The students were asked to identify whether or not the expressions on the preceding table are correct or wrong on the basis of the interpretation they would build from it.

The following table shows the responses of the students.

Items	Correct	Wrong
1. The horse raced past the barn fell.	61	55
2. Daniel emailed me a photograph of the rider raced at the highway.	95	22
3. Working on her French essay.	46	71
4. Mirabel knows the boys next door are rowdy.	44	73
5. The second wife will claim the entire family inheritance belongs to her.	64	53
6. She chose to remain in the group.	87	30
7. The boys watched during	12	105



the morning were playing in the park.		
8. The old train the young.	36	80
9. The critic wrote the book was enlightening.	64	53
10. There are three members of the group that worked inside the room.	110	6
11. The girl told the story cried.	26	91
12. Mary gave the child the dog bit a band aid.	10	107
13. The sound which is like music to my ears last night.	55	62
14. The raft floated down the river sank.	86	31

Note that for the purpose of interpreting, all the items were included except numbers 3,6,10, and 13 because they are not under “local ambiguity”.

In sentences number 4, 7, 8, 11, and 12, more students responded “wrong”. They were misled by the local ambiguity at the later parts of the sentences, though they were able to understand its meaning with low cost at the first parts of the sentences. The students consider *the boys* as the direct object of the sentence. Within 25 seconds given to them to understand the meaning of the sentence, they were not able to realize that *the boys* is the subject of the dependent clause (*that the boys next door are rowdy*).

In sentence number 7, 105 students failed to notice that the verb *watched* is in its past participle form, making the whole phrase *watched during the morning* a participial phrase modifier of *boys*. Instead, they thought of *watched* as the main verb of the sentence, leading them to garden path when they encountered another verb at the later part of the sentence which is *were playing*.

Sentence number 8 is another example of a local ambiguity. Eighty students thought that the sentence is wrong. They believed that *old* serves as an adjective; hence, modifying



the noun train. This, then, led them to a garden path. Further, they did not realize that the *old* functions as a noun/subject of the sentence and the *train* functions as its verb.

The elliptical sentence in number 11 caused local ambiguity among the students because they thought that the *told* is the main verb of the sentence because it comes right after the subject. The word *cried* is the main verb and *told* is the verb of the dependent clause modifying *girl* (*The girl who told the story cried.*)

Sentence number 12 is more confusing than the preceding sentences because the ambiguity is observed after the verb of the sentence (*gave*). *The dog bit* is a part of the dependent clause modifying the *child* (Mary gave the child THAT THE DOG BIT a band aid). This sentence offers another interpretation which makes *the dog bit* either a direct object, making *the child* an indirect object, or another direct object causing more confusion to the parsers.

Sentences number 1, 2, 5, 9 and 14 also contain local ambiguity. Though there are more students who were able to derive an interpretation from them than those who considered them wrong or non-sense, the number of students who were misled by these 5 sentences is still significant.

CONCLUSION

For global ambiguity, students have a higher tendency of interpreting an -ing form of verb as a participle or a modifier, especially when it is placed at the beginning of a sentence and when it has a dual role -either participle or gerund.

Though they have high tendency of interpreting sentences based on the S-V pattern, they do not necessarily always interpret them as such; instead, they still have a high tendency of considering an -ing form of verb as a participle or modifier.

They base their interpretation not only to the structure of the sentence but also to the most plausible meaning and to low attachment.

Students have high tendency of not being able to build an interpretation in locally ambiguous sentences.



RECOMMENDATIONS

The following are the recommendations of the researchers based on the findings of the study.

1. Topics on ambiguities may be included in the curriculum of the Senior High School students.
2. Further studies on the following may be conducted:
 - a. Ambiguities in teachers' test questions and student essays
 - b. Similar study with different variables
 - c. Other students

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