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EDITORIAL

It is my proud privilege to welcome you all to the TheIRES International Conference at Zurich, Switzerland. I am happy to see the papers from all part of the world and some of the best paper published in this proceedings. This proceeding brings out the various Research papers from diverse areas of Science, Engineering, Technology and Management. This platform is intended to provide a platform for researchers, educators and professionals to present their discoveries and innovative practice and to explore future trends and applications in the field Science and Engineering. However, this conference will also provide a forum for dissemination of knowledge on both theoretical and applied research on the above said area with an ultimate aim to bridge the gap between these coherent disciplines of knowledge. Thus the forum accelerates the trend of development of technology for next generation. Our goal is to make the Conference proceedings useful and interesting to audiences involved in research in these areas, as well as to those involved in design, implementation and operation, to achieve the goal.

I once again give thanks to the Institute of Research and Journals, TheIIER, TheIRES for organizing this event in Zurich, Switzerland. I am sure the contributions by the authors shall add value to the research community. I also thank all the International Advisory members and Reviewers for making this event a Successful one.

Editor-In-Chief

Dr. P. Suresh
M.E, Ph.D. Professor and Controller of Examinations,
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THE ABILITY OF SECOND YEAR ENGLISH LANGUAGE MAJOR STUDENTS IN TRANSLATING GARDEN-PATH SENTENCES

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Abstract - The aim of this study was to investigate the capability of second year English major students, Suan Sunandha Rajabhat University in translating garden path sentences and whether or not they have an unconscious knowledge of how the syntax works. A qualitative case study research design was adopted to find out if the 25 subjects could manage to successfully decrypt ten ambiguous sentences in part of speech into fully understandable Thai before and after the guidance. Descriptive statistics were also used to support the qualitative data. The results indicated the problem involved with the specific garden path sentences, part of speech. The subjects are able to translate the ambiguous garden path sentences better after given a hint.

Index Terms - Ambiguous Sentences, English To Thai translation, English Language, Garden-Path.

I. INTRODUCTION

In everyday language we encounter sentences in or out of context that make us reread them again just to be sure that we have read them correctly, one can find examples in street signs that are telling us what and what not to do, in headlines, in newspaper and on internet forums. Usually sentences are not meant to be open to interpretation but still end up being misunderstood, ridiculed, or questioned. In the same way, a garden path sentence is a sentence that is temporarily ambiguous or confusing in psycholinguistics because it contains a word group which appears to be compatible with more than one structural analysis. It is also called a syntactic garden path sentence. This would not happen if the interpretation of a sentence was deferred until it had been heard or read in its entirety, but because we try to process the sentences as we perceive them word by word, we are 'led down the garden path'[1]. The ambiguity of certain nouns or verbs makes this possible, and is therefore used by linguists to construct sentences made specifically to trick the human mind. Psycholinguists have adopted the term garden path sentence for a sentence that fools the reader by being grammatically correct whilst beginning in such a way that their most likely first interpretation of it will be wrong. It is claimed that the brain usually seems to interpret the verb form in a sentence before reaching the end of the said sentence, which is not possible when interpreting garden path sentence [2]. Ambiguity in sentences can be a source of confusion. For example, "flies" can be a noun or a verb and "like" can be a verb or a preposition, resulting in the amusing juxtaposition of Time flies (verb) like (preposition) an arrow. Fruit flies (noun) like (verb) a banana. For this puzzle, we will be concerned with ambiguity in parts of speech (noun, verb, adjective, adverb, preposition) as well as ambiguity in the structure of a sentence. Some ambiguity arises when there is not enough information midway through a sentence to decide on the parts of speech or the structure. For example, when you hear or see the words "the old man" you don't know whether the sentence will continue with "man" being a verb as in "The old man the boats" or as a noun as in "The old man is wise." After the decryption, we can explain that in "The old man the boats", "man" is grouped with "the boats" to make a verb phrase "man the boats", but in "The old man is wise", "man" is grouped with "the old" to make a noun phrase "the old man". The old (noun) man (verb) the boats. The old (adjective) man (noun) is wise. When reading 'Because he always jogs a mile seems a short distance to him', one first wants to continue the phrase 'Because he always jogs' by adding 'a mile' to the phrase, but when reading further one realizes that the words 'a mile' are the beginning of a new phrase. This shows that we parse a sentence by trying to add new words to a phrase as long as possible. According to this approach we use syntax first to parse a sentence and semantics is later on used to make sense of the sentence [3]. Comprehension is better when relative pronouns e.g., that, which, whom are used to signal the start of a phrase than when they are omitted [4]. Consider the sentence, 'The barge floated down the river sank, its construction leads the reader to interpret the word floated as the verb for the sentence, but this interpretation must be revised when the word sank is encountered. Changing the sentence to read 'The barge that floated down the river sank' eliminates this ambiguity. However, not all garden path sentences can be remedied in this way. For instance, consider the sentence, 'The man who whistled tunes pianos.' This sentence will be read more slowly and comprehended less well than the equivalent sentence, 'The whistling man tunes pianos,' in which the word tunes is unambiguously a verb [5]. The purpose of this study is to examine if second year English language major students of Suan Sunandha Rajabhat University will be able to translate garden path sentences. The research is also intended to see if the students manage to successfully decrypt the sentences into fully
understandable Thai, and at the same time acquire an insight into how their unconscious knowledge of linguistic structure above the level of the word works.

II. PROCEDURE

A. Samples
The study was performed at Suan Sunandha Rajabhat University, Bangkok, Thailand. The subjects include 25 second year English major students, English language program, Faculty of Humanities and Social Sciences. They were chosen by a random selection, All of the chosen subjects are expected to have studied Grammar in Contexts 1 and 2 as the compulsory subjects of the curriculum and also studying Introduction to English-Thai Translation in the second semester of academic year 2016 when this study performed.

B. Material
Data were collected by using two forms of test. The first one consisted of then accepted ambiguous garden path sentences in parts of speech chosen from the previous studies. The second one was the same ten ambiguous sentences but quite different in some underlined words provided for guiding the subjects to check their part of speech. Both of tests are designed to examine the subject’s abilities of comprehension and translation the garden path sentences.

C. Procedure
Twenty five students were used in this study to perform the tests. First, they were given the first test. They must translate the ten ambiguous garden path sentences in part of speech selected from the previous researches without any guidance. Then, the second test follows which has some underlined words to guide them out of the garden path. A short introduction to the subjects was given. The purpose of the study was explained. Ten different sentences from both tests were to be translated into Thai. Finally, the results of the tests were to be compared and analyzed how different the subjects managed to successfully decrypt the sentences into fully understandable Thai.

III. THEORETICAL BACKGROUND

The problem with garden path sentences is that they are language specific and very special because of the way that they are actually constructed by a linguist, and are almost never found either in authentic spoken or in written English and are very hard to find in any corpus (consisting of authentic language samples). Generative grammar is concerned exclusively with the syntactic form of sentences, distinguishing between acceptable and meaningful. For example, garden path sentences may be acceptable in the same way as Chomsky's famous invented example Colorless green ideas sleep furiously, but they are not used. They are just thereto either test and/or show that grammar is not always as simple as one thinks. When trying to understand the grammar behind garden path sentences one first has to understand the basics of syntax. First of all, one needs to be familiar with the system of clausal elements in the English language. One could say that garden path sentences are a comprehension test of the ability to read a sentence and pick out the clausal units (or main and dependent clause) in that sentence. It is known that a subject in a phrase can be almost the whole phrase in a sentence as “The stupid dog who tried to get under the fence got stuck” or “The tiny old lady who broke her leg recovered”, and that it can consist of more than one word or as [6] puts it “a clause element is a string of words that fulfil a grammatical function in a particular clause and cannot be identified in isolation...it can either consist of a grammatical phrase or a whole clause.” Secondly, one needs to know that “a subject comes before the first verb in a statement...” The subject is what the clause is all about, who or what is doing something to someone, or who or what is in a certain state of being. One also needs to know that a normal sentence contains a subject, a verb and an optional object or S-V-(O), and that it usually starts with a noun phrase. The noun phrase can consist of a single noun or pronoun, but if the head in the sentence is a noun it is often expanded by determiners, pre modifiers, and/or post modifiers. Finally, one has to have a basic knowledge and understanding of the grammar involved in interpreting these sentences. If a sentence is ambiguous it can have more than one meaning, but there are more than one type of ambiguity. The first one is when a word can be interpreted in more than one way: “The intruder planted a bug.” The bug can be interpreted as either a real bug or a small microphone. This is called lexical ambiguity because it is the result of one of the words having more than one possible meaning. The second type of ambiguity is when the sentence is syntactically ambiguous. The syntax or grammar can be understood in more than one way: “put the cupcakes in the box in the living room.” This sentence can be read as the cupcakes are to be places in the box placed in the living room, or that the cupcakes that are already in the box are to be placed in the living room. With this in mind it is an example of a sentence that can be interpreted in more than one way, “Visiting relatives can be fun.” There are two completely different meanings we can give to this sentence. Usually “we are not always conscious of ambiguity in our normal use of language because we are so adept at choosing the interpretation that fits the context and discarding the others [7].” However, the sentence can be interpreted in two ways. The sentence can either be interpreted as visiting is an adjective modifying relatives and therefore the whole noun phrase visiting relatives is the subject of the sentence. On the other hand, one can also interpret the sentence as visiting being and therefore their hole gerundive phrase is a subject in the sentence. Being able to understand this is crucial to the deciphering of garden path sentences.
IV. RESULTS

Base on the research results, the study disclosed the comparison of the results in garden path sentences translation before and after the given hints using the standard T score are as follow.

<table>
<thead>
<tr>
<th>No.</th>
<th>Before hint score (T)</th>
<th>After hint score (T)</th>
<th>Differences in score</th>
<th>Percentage of score</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>32.94</td>
<td>43.68</td>
<td>10.74</td>
<td>32.61</td>
</tr>
</tbody>
</table>

We may conclude from table 1 that the subjects can translate the ambiguous garden path sentences better after they receive the guidance and led out of the garden by the right part of speech. After the hint average T score 43.68 is greater than 32.94, before average T score. The difference between before and after score is 10.74 and the percentage of the score is 32.61 which are not in the high level. This indicated that some of the subjects can identify the right syntax structure and able to comprehend some of the garden path sentences but cannot translate them into understandable Thai.

Some students have reached the level of unconscious awareness of linguistic structure and some have not. Table 2 and 3 showed the comparison of sentence translation between source text no.3 and no.4 by two students:

<table>
<thead>
<tr>
<th>Source text</th>
<th>Target text</th>
</tr>
</thead>
<tbody>
<tr>
<td>The cotton clothing is usually made of grows in Mississi ppi.</td>
<td>The old dog the footsteps of the young.</td>
</tr>
</tbody>
</table>

Data in table 2 showed that it is not a good translation and makes no sense. While another student made a better translation of the same sentences showed in table 3.

This indicates that some students have the capability and have developed the knowledge competence that they need to do a full reanalysis, when they encounter a sentence of this sort.

This can be explained from a psycholinguistic point of view that every person's brain contains lexicon of words and the concepts they stand for and a set of rules that combine the words to convey relationships among concepts as a mental grammar [8]. This lexicon of words and the set of rules that form a mental grammar are obviously different from student to student because of what they have put into their rucksack previously. The many factors that have to be taken into consideration make every student unique. The only thing that combines them are the teaching they have all received in school. That is a common factor. Students need a developed code to translate between orders of words and combination of thoughts [9]. It is this same mental grammar that needs to have evolved to a higher learning level in order to comprehend that even if some verbs are primarily transitive they can also exist in an intransitive form, the interesting thing is to see that some students have understood this. The verbs in the garden path sentences may be more frequently transitive than intransitive and the sentences in the test lacks a comma. Several things in the sentence points to the use of a transitive analysis, but this must be undone when the error signal from the second verb is encountered [10]. It is obvious that some students have an unconscious knowledge and receives that error signal when they encounter the second verb and some obviously do not encounter that error signal.

The way words are combined to form sentences obeys a set of rules which constitute the syntax of a language [11]. It is also noted that because of this all speakers of
The Ability of Second Year English Language Major Students in Translating Garden-path Sentences

a certain language know implicitly the syntax of that said language that they speak. The speakers are able to produce and comprehend sentences that follow these rules. They also know if a sentence is well formed. On the other hand, table 4 showed that some students do not seem to have this innate ability of a L2 language, while the others do, but at some points they discovered that their sentences did not make sense and their brain automatically adapted their thinking and corrected their sentences probably without even knowing that they did.

**TABLE IV: ENGLISH TO THAI TRANSLATION OF STUDENT NO.3**

<table>
<thead>
<tr>
<th>Source text no.</th>
<th>Source text</th>
<th>Target text</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Fat people eat accumulates.</td>
<td>ชีวิตคน้วนกินสะสมที่ขึ้น</td>
</tr>
<tr>
<td>10</td>
<td>The raft floated down the river sank.</td>
<td>ลำเรือซึ่งลอยลงแม่น้ำได้สั้น</td>
</tr>
</tbody>
</table>

These sentences actually make sense even if the translations are made in the incorrect way.

**CONCLUSION**

This research has shown that the second year English language major students are able to translate the ambiguous garden path sentences better after given a hint in part of speech. They also have an /un/conscious ability and an /un/conscious awareness of linguistic structure which gives them an advantage into the understanding of garden path sentences. Some of them manage to make an acceptable translation into Thai and fully reanalyze the sentences presented in front of them. Some of them fall into the trap and are led 'up the garden path', but to believe that all of them would be able to make acceptable translations is too much to ask of the second year students. Not even the English teachers who are not native speakers managed to understand the garden path sentences correctly. The results showed the problems involved with these specific garden path sentences, part of speech. When the subjects tried to analyze the sentences they ran into the obstacle with whether or not noun, adjective, and verb, in this case, is transitive or intransitive. Hence the re-analysis of the sentences failed, which is exactly what Christiansson stated in his study as well, it is likely that no interpretation ever will be reached, or at least no more than a guess based on the information the reader received from the combination of words and phrase meaning [10]. However it is also important to mention that fewer subjects made their six to seven translations correct without hesitation. In interpreting the above data and understanding the above discussion one may consider the issues and problems arisen during the experiments. Since the subjects are studying an Introduction to English-Thai translation in this semester and still have not finished their final exams, their grade record can't be used to analyze the connection with the results of this study. Moreover, the planning will be better if there is enough time. The above tests may be added as a part of the exercises in the syllabus of this course "Introduction to English-Thai translation" which will encourage students to consider these tests more seriously. It is possible to expand and do further research in the area of ambiguity in L2 Listening comprehension as a teaching approach for adult learners in the University [12].

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**REFERENCES**
