# Structural Ambiguity in the Headlines Compiled by Department of Languages, Cultures and Linguistics Bucknell University: A Study on the X-bar Theory

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## **ABSTRAK**

Ambiguitas merupakan hal yang terjadi dalam komunikasi. Surat kabar sebagai media komunikasi juga bisa menimbulkan ambiguitas pada pembacanya, terutama pada judul artikel. Makalah ilmiah ini menguraikan keambiguan struktural dalam kumpulan judul artikel surat kabar yang terdapat pada situs Fakultas Bahasa, Budaya dan Linguistik Universitas Bucknell. Penulis menggunakan metode observasi dengan teknik catat dalam pengumpulan data. Data tersebut kemudian dianalisa dengan menggunakan teori X-Bar, yang pada prinsipnya menjelaskan bahwa setiap struktur sintaksis memiliki inti. Hasil analisa menunjukkan adanya tiga penyebab keambiguan struktural, yakni perbedaan kategori sintaksis, penempatan frasa preposisi yang berfungsi sebagai adjunct, dan subkategorisasi kata kerja.

#### **ABSTRACT**

Ambiguity usually happens in the communication. Newspapers as a medium communication can also lead ambiguity to the reader, especially on the headlines. This study describes a structural ambiguity in the headlines compiled on the website of Department of Languages, Cultures and Linguistics Bucknell University. The writer used observation methods with note taking technique to collect the data. The data were then analyzed by applying X-bar theory, which principally explains that each syntactic structure has a head. The result of this study indicates that there were three causes of structural ambiguity, i.e. differences of syntactic category, placement of prepositional phrases that functions as an adjunct, and verbs subcategorization.

#### 1. Background

In language and communication field, ambiguity is an unavoidable matter. It happens over time in either speech or written communication in all languages. It causes confusion and unclearness in communication that leads to a problem for both a speaker or a writer and a hearer or a reader. However, it also can be used to attract the hearer's or the reader's attention. Some speakers or writers use it to make their speech or writing more interesting to drag the hearers or readers deeper into their subject matter. Several newspapers use ambiguity in making headlines.

Generally, ambiguity occurs in lexical level in which one word can be interpreted as having several different meanings. Unlike a spoken text, ambiguity may occur in a written text due to the lack of tone, stress, and pitch. Most ambiguity cases tend to be viewed as semantic matter. Therefore, the writer will try to analyze ambiguity found in the syntactic view. The writer is eager to research structural ambiguity that occurs in the headlines compiled by Department of Languages, Cultures and Linguistics Bucknell University and to explain several possible meanings in each ambiguous headline.

#### 2. Research Problem

This study encompasses two research problems.

- **2.1.** What are several possible meanings and interpretations of the ambiguous headlines?
- 2.2. How are the ambiguous headlines described within the framework of X-bar theory?

# 3. Purpose and Significance

The purposes of this study are:

- 3.1. To find several possible meaning of the ambiguous headlines.
- 3.2. To describe the ambiguous headlines by using the X-bar theory.

This study will be a significant endeavor in syntax field. By analyzing the ambiguity, we can train our sensitivity in understanding several possibilities of meanings in a text. If we think sharply, we can find many interpretations in one text.

#### 4. Review of Literature

### 4.1. Previous studies

There are several related previous studies. The first is entitled "An Analysis on Syntactic and Semantic Factors Found in Newspaper Headlines" by Tiono (2003). This study analyzed the different linguistic choices and structures used in several headlines. These differences may lead to different linguistic representations of one event in the world (Tiono, 2003: 49). In this research, Tiono used the data from The Jakarta Post and Indonesian Daily issued in 20<sup>th</sup> and 21<sup>st</sup> June 2001. She searched for the headlines which have the same topic. She compared the headlines from both newspaper and analyzes the linguistic choice and structure. She analyzed the linguistic choice by examining the grammar and applying Leech's language function theory. She analyzed the linguistic structure by using tree diagrams of syntax. In the conclusion, she stated that both newspapers used simple future tense with the deletion of the verb (Tiono, 2003: 49). The two newspapers also had differences in the linguistic choices.

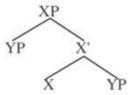
Another previous study is entitled "The Analysis of Lexical and Structural Ambiguity in Your Letters of The Jakarta Post" written by Tambunan (2009). This study described the classes of word and the kinds of sentences or phrases that can be lexically ambiguous. This study also determined the most dominant type of ambiguity. The writer used descriptive method. The data was taken from fourteen sections of Your Letters in The Jakarta Post issued in March 2009. In the conclusion, she found fifty ambiguities which are distinguished into twenty three lexical ambiguities and twenty seven structural ambiguities. Of the lexical ambiguity, there were 30.4% of verb ambiguity, 34.8% of adverb ambiguity, and 30.4% of adjective ambiguity. The most dominant ambiguity is the structural ambiguity which is functioned as noun phrase (Tambunan, 2009: 69).

#### 4.2. Theoretical framework

According to O'Grady (1997), several sentences are structurally ambiguous because the meanings of their component word can be combined in several ways. He explained that the manner in which words are grouped together in syntactic structure reflects the way in which their meanings are combined with the semantic component of grammar. He also concluded that it is possible to describe structural ambiguity in language by providing different tree diagrams (O'Grady, 1997: 286).

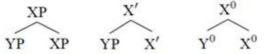
Brown and Miller (1988) divided structural ambiguity into two types. First, ambiguity of bracketing occurs when a component has more than one bracketing system, but the same labeling. For example, "The dog bit the man in the bath room" (Brown and Miller, 1988: 82). Another is ambiguity of labeling. It occurs when a component has more than one labeling. For example, "She looked hard" (Brown and Miller, 1988: 82).

Newson et al. (2006) defined X-bar theory as a theory of the arrangement of complement, specifier, and adjunct. Newson et al. (2006) generalizes the complement and specifier rules into the following template.



(Newson et al., 2006: 92)

Newson et al. (2006) explained that the complement is the sister of the head and always follows the head. The specifier is the sister to X' and daughter of XP. The specifiers precede the head and are restricted to one per phrase. Both complement and specifier are restricted by the property and the meaning of the head. The adjunct can be placed at any X-bar level such as X, X' and XP. The adjunct expands the level which it adjoined to. Any number of adjuncts can be added to a structure and the process is recursive (Newson et al., 2006: 87-96). Dalrymple (2001) drew the adjunct rules into the following template.



(Dalrymple, 2001: 57-58)

# 5. Methodology

#### 5.1. Data and Method of Collecting Data

In this research, the writer used an observation method wih note taking technique to get the data from several headlines compiled by Department of Languages, Cultures and Linguistics Bucknell University website as the research object. The URL (Uniform Source Locator) of the website is http://www.departments.bucknell.edu/linguistics/synhead.html. The headlines are listed below.

- 1) British Left Waffles on Falkland Islands
- 2) Dr. Ruth to Talk about Sex with Newspaper Editors
- 3) Lung Cancer in Women Mushrooms
- 4) Teacher Strikes Idle Kids
- 5) Stud Tires Out
- 6) Soviet Virgin Lands Short of Goal Again
- 7) Shot Off Woman's Leg Helps Nicklaus to 66
- 8) Reagan Wins on Budget, but More Lies Ahead
- 9) Enraged Cow Injures Farmer with Axe
- 10) Miners Refuse to Work after Death
- 11) Squad Helps Dog Bite Victim
- 12) Juvenile Court Tries Shooting Defendant
- 13) Stolen Painting Found by Tree

- 14) Killer Sentenced to Die for Second Time in 10 Years
- 15) Drunk Drivers Paid \$1,000 in 1984
- 16) Grandmother of Eight Makes Hole in One
- 17) Stiff opposition expected to casketless funeral plan
- 18) Two Convicts Evade Noose, Jury Hung
- 19) Squad helps dog bite victim
- 20) Dealers will Hear Car Talk at Noon
- 21) Enraged Cow Injures Farmer with Ax
- 22) Milk Drinkers are Turning to Powder
- 23) NJ Judge to Rule on Nude Beach

The headlines were read carefully and sorted to get the valid data. Then, the headlines were divided into two classes. The first is semantically ambiguous headlines and the second is syntactically ambiguous headlines. The semantically ambiguous headlines were excluded from the data. Meanwhile, the syntactically ambiguous headlines were selected to be proceeded.

# 5.2. Analyzing data

In this paper, each of the headlines was analyzed by using X-bar theory to reveal and explain several possible meaning and interpretation. Then, the headlines were divided into several categories based on the cause of ambiguity. Tree diagrams were made to explain different meanings and interpretations. Since this study emphasizes on the syntactic analysis to explore the meaning, this study is qualitative primary. However, this study is also quantitative because the writer chose the headlines compilation randomly without any particular reason.

# 6. Analysis

Of twenty three headlines on the website, twenty one headlines were analyzed. Two headlines were not analyzed because these headlines are similar to other headlines. From the twenty one headlines analyzed, only five headlines have structural ambiguity. The five headlines were divided into three categories based on the cause of ambiguity. The three categories are explained below.

# 6.1. Structural Ambiguity Caused by Syntactic Category

The difference of syntactic category is one of the causes of structural ambiguity. The headline which falls into this category is "British Left Waffles on Falkland Islands." This headline has two different meanings.

- A) It was waffles on Falkland Islands that British left.
- B) There are British left waffles about Falkland Islands.

In the first meaning, "left" is a verb and a simple past form of verb leave. In the second meaning, "left" is the adjective of "Waffles" and has a meaning "relating to a person or group favouring radical, reforming, or socialist views" (Oxford Dictionaries Online, 2013). Below are X-bar theory diagram of the first headlines.

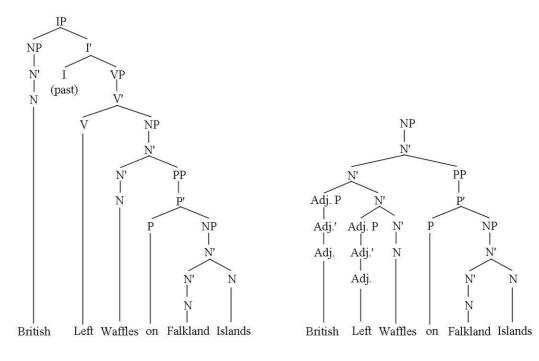


Diagram A Diagram B

In diagram A, "left" is the head of the VP. It has the position under the V' category parallel with NP category. In diagram B, "left" is an adjective which is the adjunct of the noun "waffles." In this diagram, the adjective has the position parallel with the N' category under the N' category.

# 6.2. Structural Ambiguity Caused by Placement of Prepositional Phrase that functions as an Adjunct

Prepositional phrase "with" can cause structural ambiguity. It can be the adjunct of a noun phrase or the adjunct of a verb. There are two headlines that fall into this category, as seen in the following:

- 1) Enraged Cow Injures Farmer with Axe
- 2) Dr. Ruth to Talk about Sex with Newspaper Editors The first headline has two meanings.
- A) It is farmer with axe that enraged cow injures.
- B) It is farmer that enraged cow injures with axe.

In the first meaning, "with axe" is the adjunct of noun "farmer." However, "with axe" becomes the adjunct of verb "injures" in second meaning. Similar to the first headline, the second headline also has two meanings.

- A) It is sex with newspaper editors that Dr. Ruth to talk about.
- B) It is sex that Dr. Ruth to talk about with newspaper editors.

Because the tree diagram of both headlines is almost similar, only one of them is drawn. The diagram of X-bar theory for the first headline is shown below.

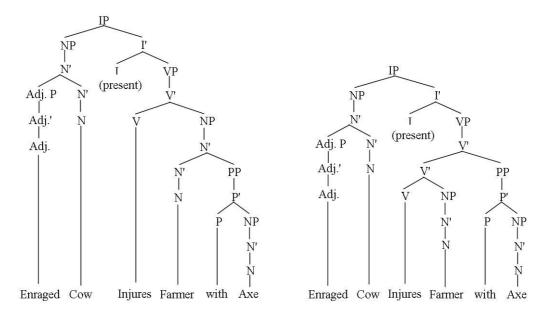


Diagram A Diagram B

In diagram A, prepositional phrase "with axe" is the adjunct of noun "farmer." It has the position under the N' category parallel with N' category. In diagram B, "with axe" is the adjunct of the VP and has the position parallel with the V' category under the V' category.

#### 6.3. Structural Ambiguity Caused by Subcategorization of Verbs

Subcategorization of a verb may lead to structural ambiguity. A verb can be transitive or intransitive depending on the word that followed. Headlines included in this category are listed below.

- 1) Squad helps dog bite victim
- 2) Dealers will Hear Car Talk at Noon

The first headline has two meanings.

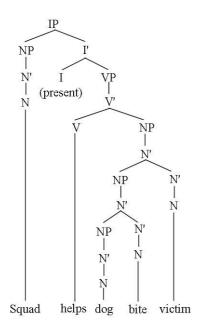
- A) It is the dog bite victim that squad helps.
- B) It is the dog that squad helps to bite victim.

The verb "help" can be followed by either a noun phrase only or a noun phrase and an infinitive. This verb omits "to" deletion for the infinitive form. In the first meaning, "dog bite victim" is a noun phrase. The noun phrase is the direct object of the verb "helps". In the second meaning, "dog" is the direct object of the verb "help" and "bite victim" is the infinitive. The infinitive form omits "to" deletion.

Similar to the first headline, the second headline also has two meanings.

- 1) It is the car talk that dealers will hear at noon.
- 2) It is the car that dealers hear to talk at noon.

In the first meaning, "car talk" is noun phrase and the direct object of "hear". However, in the second meaning, "car" is the direct object and "talk" is infinitive phrase by omitting "to." Below is the tree diagram of the first headline which represents the structural ambiguity of both headlines.



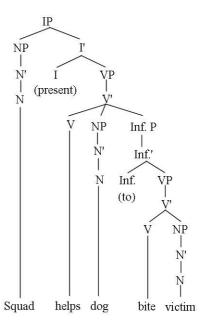


Diagram A Diagram B

In diagram A, "dog bite" is a noun phrase which is the adjunct of the noun "victim." It has the position under the N' category parallel with N' category. In diagram B, "dog" is a noun which is the complement of the verb "helps." It has the position under the V' category parallel with V and Infl. P (inflectional phrase) category. Infl. P "bite victim" is also the complement of "helps" and has the position parallel with V and NP category.

# 7. Conclusion

This study reveals three causes of structural ambiguity in the headlines compiled by Department of Languages, Cultures and Linguistics Bucknell University. They are differences of syntactic category, placement of prepositional phrase that functions as an adjunct, and subcategorization of verbs. A word may have different categories depending on the following or preceding words. This difference of syntactic category causes the headline to be structurally ambiguous. A prepositional phrase which is usually placed in the final position also creates structural ambiguity. It can be the adjunct of a noun phrase or the adjunct of a verb phrase. Subcategorization of verbs also causes structural ambiguity. Transitive verbs can be followed by a direct object only or a direct object and an infinitive phrase.

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