IJHS, e-ISSN 2597-4718, p-ISSN 2597-470X, Vol. 7, No. 1, September 2023, pp. 53-71

International Journal of Humanity Studies
http://e-journal.usd.ac.id/index.php/IJHS
Sanata Dharma University, Yogyakarta, Indonesia

ENGLISH FOR BUSINESS AND PROFESSIONAL COMMUNICATION: A SYNTACTIC AMBIGUITY ANALYSIS OF A STUDY PROGRAM'S NAME

Yosafat Barona Valentino
Politeknik Tonggak Equator, Indonesia
correspondence: yosafatvalentino@gmail.com
https://doi.org/10.24071/ijhs.v7i1.6262
received 18 April 2023; accepted 12 September 2023

Abstract
This qualitative descriptive research aims to explore the different meanings that can be derived from the name of a study program, i.e., *English for Business and Professional Communication*, using a syntactic approach. The syntactic approach employed was the X-bar theory rules to analyze the possibilities of the structural meaning. The results show three possible structural interpretations of the program's name: (i) an English language program with two specific objectives, namely business and professional communication, (ii) a program with two specializations, namely English language for business purposes and professional communication, and (iii) an English language program with a specific purpose in the field of communication, which is divided into two sub-fields, namely business communication and professional communication. Thus, the *English for Business and Professional Communication* study program name is an ambiguous construction with three possible structural readings.

Keywords: ambiguity, English for Business and Professional Communication, structural ambiguity, syntactic ambiguity, x-bar theory

Introduction
Structural or syntactic ambiguity is a very common phenomenon in linguistics. Anderson (2018, p. 230) states that if a "string of words" has, at least, two different readings, it is ambiguous, syntactically speaking. This phenomenon happens in many aspects of language use. One of the newest, cutting-edge occurrences, among others, is the ChatGPT. Syntactic ambiguity is one of the challenges faced by this artificial intelligence language model (Ortega-Martín et al., 2023). It happens in English learning situations, as well as in students' writing and grammar learning, and, even in native and second languages' sentence parsing strategies (Almahameed, 2020; Demir, 2020; Khawalda & Al-saidat, 2012; Kurniasari, 2017; Zhang & Ding, 2020). Not only in the amateurs' use of the English language but also in the supposed experts' use of the English language, as in the sentences in novels and newspapers that readers consume every day (Mahendra et al., 2022; Puspitasari & Beratha, 2019). Then, as it turns out, this

This work is licensed under CC BY-SA.
Creative Commons Attribution-ShareAlike 4.0 International License

phenomenon also occurs in the creation of humor (Bucaria, 2004; Charina, 2017; Oaks, 1994).

Due to the commonness of this phenomenon, the author has also experienced it directly in his daily life, specifically at work. It happened when a debate arose during a meeting of the committee for new student admissions at Politeknik Tonggak Equator (hereinafter referred to as POLTEQ) regarding the description of the *English for Business and Professional Communication* study program (hereinafter referred to as EBPC), one of the study programs in POLTEQ. The naming of this study program is based on The Ministerial Decree of the Minister of Research, Technology, And Higher Education of The Republic of Indonesia Number 257/M/KPT/2017 regarding the Name of Study Programs in the Higher Education Programs (Kemenristekdikti, 2017). The name of this study program is arguably long, longer than the other study programs' names in the decree's list. The length of this study program's name incites ambiguity in its reading. Due to this fact, the previously mentioned debate on the study program's name centered on the syntax of the program name and differences in opinions on determining the meaning constituents of the program name phrase, as illustrated by examples (1) and (2).

(1) [$_{\&P}$ [$_{NP}$ [$_{N'}$ [$_{N}$ English] [$_{PP}$ [$_{P'}$ [$_{P}$ for] [$_{NP}$ ^Business]]]]] [$_{\&'}$ [$_{\&}$ and] [$_{NP}$ [$_{N'}$ [$_{AP}$ ^Professional] [$_{N}$ Communication]]]]]

(2) [$_{NP}$ [$_{N'}$ [$_{N}$ English] [$_{PP}$ [$_{P'}$ [$_{P}$ for] [$_{NP}$ [$_{N'}$ [$_{\&P}$ [$_{Attr.P}$ ^Business] [$_{\&'}$ [$_{\&}$ and] [$_{Attr.P}$ ^Professional]]] [$_{N}$ Communication]]]]]]

Example (1) describes two different noun phrase constructions, namely [$_{NP}$ English for Business] and [$_{NP}$ Professional Communication], connected by the conjunction [$_{\&}$ and]. Example (2) describes two different constructions, a noun phrase ($_{NP}$) and a prepositional phrase ($_{PP}$), where [$_{NP}$ English for Business], headed by the noun [$_{N}$ English], has [$_{PP}$ for Business and Professional Communication] as its complement. As a result, the description of the program is still not fully agreed upon, indicating ambiguity in the meaning of the name of the program, at least at the syntactic level.

The program description is the result of interpreting the program name and will determine the policy direction of the program, from creating the program description and determining the curriculum and course list to the graduate profile. Failure to investigate this phenomenon further could lead to multiple interpretations and perceptions of the program newly established at POLTEQ. Therefore, it is essential to understand the possible meanings that can be drawn from the name of the EBPC program to facilitate decision-making regarding the program. For that matter, this study employs a syntactical linguistic approach to examine the ambiguity in the meaning of the EBPC study program name. The syntactic approach will be used to look at the meaning ambiguity from the structure of the program name phrase.

Based on the presented background of the problem, the author intends to study this phenomenon to find a scientific answer to the meaning debate of the EBPC program name. The scientific answer sought in this research is expected to contribute to the common good of stakeholders at POLTEQ, especially the EBPC program. Besides, the EBPC study program can also benefit from the results of

this study to determine its role based on the interpretations provided by the syntactic analysis of the study program's name in preparing its students for their careers. Therefore, the author proposes research titled *English for Business and Professional Communication: A Syntactical Ambiguity Analysis in a Study Program's Name*. Based on the background of the research that has been presented, the question posed in this study is: What are the meanings that can be drawn from the *English for Business and Professional Communication* study program name when viewed from the syntactic approach?

Literature Review

Meaning and ambiguity of meaning

The field of language and linguistics studies various aspects of meaning, including how it is symbolized and conveyed between speakers. Aitchison (2010) identifies several levels of meaning that are commonly studied, including phonetics, phonology, morphology, syntax, semantics, and pragmatics. While linguistic studies may intersect with other fields such as physics and anatomy, the study of language is not limited to pragmatics alone. Aitchison also identifies other sub-studies within linguistics, including psycholinguistics, sociolinguistics, applied linguistics, computational linguistics, stylistics, anthropological linguistics, and philosophical linguistics. All linguistic studies at various levels must be related to meaning, either directly or indirectly.

Key (2018) argues that the Arabic word *Maʿnā* (معنى) cannot be translated into any English word, but proposes mental content as a good translation. This is because he believes that *Maʿnā* is a meaningful and stable conceptual core vocabulary unit. However, ambiguity remains a central issue in linguistic theory and psycholinguistics, as it refers to situations where a linguistic entity can be understood in more than one way (Al-Sulaimaan & Khoshaba, 2018). Ambiguity does not necessarily imply confusion of meaning but rather offers clear choices of meaning. Although the study does not intend to dissect ambiguity at all levels of meaning, understanding ambiguity is essential in language studies.

This study takes the name of the *English for Business and Professional Communication* (EBPC) study program as a data source. Ambiguity in the name of this program is strongly felt at the syntactic level, as described in the introduction section. However, in its course, the semantic and pragmatic levels also contribute to the ambiguity of the meaning of the name of this program, namely the understanding of the words that form the name of the program as well as the use of the name of the program in various contexts, such as program descriptions, graduate profiles, course lists, and related matters. Ambiguity at the phonetic level, such as the words for and four, is indeed real. However, this ambiguity is unlikely to confuse language users because the two words used occupy different syntactic categories, as revealed by Zimmermann and Sternefeld (2013), so the use of these two words in the name of this program can be separated by the context of their use.

Regarding Key's understanding of *Maʿnā*, this study does not claim to dissect the linguistic user's mind in studying the ambiguity of the meaning of the EBPC program name. However, in its course, the dissection to be done in this study represents the mental process of language use. In line with what Chomsky (2002) states, every internal language has an instrument to construct mental

objects that we use to express our thoughts and to interpret an infinite set of clear sensory expressions that we often encounter, and each mental object is related to sound and meaning in a structured form. In addition, Yule (2010) states that concerning mental processes, context is also a mental representation of aspects of what physically exists outside that we use to arrive at an interpretation. Therefore, aligning meaning and 'mental content' is not excessive in this study.

Syntax and syntactic ambiguity

As generally known in the world of language studies, syntax is a linguistic study that explores the arrangement of words into meaningful sentences. Radford (2009a) states that syntax studies questions such as "What is the structure of a sentence like: What is the President doing?" and dissects the grammatical operations of the components of words that make up the sentence as a whole. More specifically, Burton-Roberts (2022) explains that these grammatical operations involve the form, positioning, and grouping of the elements that will form a sentence. However, unlike Radford's explanation of sentences, Burton-Roberts (2022) states that the building blocks of a sentence are not words, but phrases that have their position and function.

Based on Burton-Roberts' explanation, it can be interpreted that phrases also have their grammatical operations in their formation. In this case, Radford is not entirely in disagreement with Burton-Roberts. The difference lies in the explanation that, according to Radford (2009a), phrases and sentences are formed from combined words, so there is no hierarchy in the formation process, which is clear in Burton-Roberts' explanation. However, both can be said to agree that phrases also have their grammatical operations. These grammatical operations can be represented in the form of a tree diagram, as revealed by Radford (2009a).

The representation of grammatical operations in the form of a tree diagram, as explained by Radford, refers to what Yule (2010) calls the deep structure of a construction. A construction has both a surface structure and a deep structure, according to Yule. Surface structure is what is visible and readable from a construction. Using Yule's example, the following are examples of two constructions that differ in their surface structure.

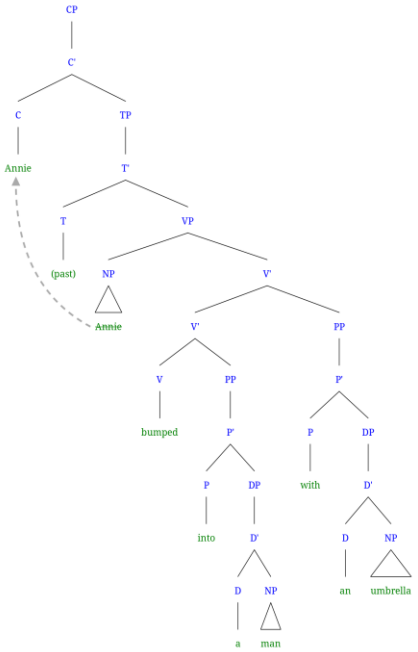
(3) Charlie broke the window.
(4) The window was broken by Charlie.

The two constructions illustrated by examples (3) and (4) differ in their syntactic form, where example (3) is made in the form of an active sentence construction, while example (4) is in the form of a passive sentence. This is evident in their different surface structures. However, this obscures the fact that both sentences are actually closely related to each other, which can only be seen at a more abstract level or deep structure, according to Yule.

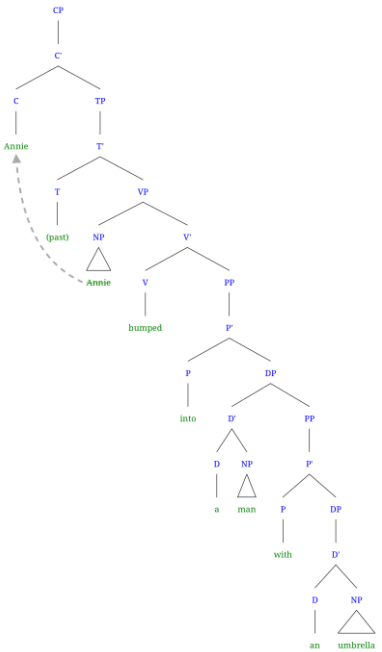
The deep structure is an abstract level of structural arrangement, in which all elements that determine structural interpretation are represented (Yule, 2010). However, at this more abstract level, it is very possible to find two or more different deep structures, which affect the interpretation differences for the same surface structure. This is what Yule (2010) refers to as structural ambiguity. As an illustration, Yule (2010) gives the following example.

(5) Annie bumped into a man with an umbrella.

Example (5) has two interpretations in its deep structure. The first meaning expresses the idea that there is someone named Annie who is carrying an umbrella and bumps into a man with the umbrella. The other meaning expresses that there is someone named Annie who bumps into a man who happens to be carrying an umbrella. To visualize the deep structure of both interpretations, one way is to use an X-bar schema tree diagram, as illustrated by examples (6) and (7) below:



(6)



(7)

The X-bar schema illustrated in examples (6) and (7) shows two internal structures of the construction in example (5). The internal structure shown by example (6) represents the first meaning of the construction, in which [$_{PP}$ with an umbrella] is an adjunct of [$_{V}$ bumped], and [$_{VP}$ bumped into a man with an umbrella] is a complement of [$_{T}$ (past)], which is a sister constituent of [$_{NP}$ Annie] (here, [$_{NP}$ Annie] and [$_{T'}$ bumped into a man with an umbrella] are branches of the same phrase head, namely [$_{TP}$ Annie bumped into a man with an umbrella], so they are called sister constituents). Therefore, it can be concluded that [$_{NP}$ Annie] has the right to c-command [$_{T'}$ bumped into a man with an umbrella] and the constituents inside [$_{T'}$ bumped into a man with an umbrella]. Meanwhile, still in the discussion of example (6), [$_{DP}$ a man] has no right to c-command [$_{PP}$ with an umbrella] because [$_{DP}$ a man] is not a sister constituent of [$_{PP}$ with an umbrella]. So, it can be concluded that the subject carrying an umbrella in example (6) is [$_{NP}$ Annie], not [$_{DP}$ a man].

Another meaning of the construction in example (5) is illustrated by example (7), where [$_{PP}$ with an umbrella] is an adjunct of [$_{N}$ man], which is a complement of [$_{D}$ a]. Although [$_{NP}$ Annie] is a sister constituent of [$_{T'}$ bumped into a man with an umbrella] so it can c-command the constituents inside [$_{T'}$ bumped into a man with an umbrella], [$_{NP}$ Annie] is further away from [$_{PP}$ with an umbrella] compared to the distance between [$_{DP}$ a man] and [$_{PP}$ with an umbrella].

Therefore, it can be concluded that the subject carrying an umbrella in example (7) is [DP a man].

To understand the rules that apply to the X-bar schema, Radford (2009a) formulated the key principles/conditions of its syntactic operations (also called efficiency rules). The key principles are as follows:

a. Headedness Principle

Every constituent where two branches meet (also called a nonterminal constituent or a head constituent) in a syntactic structure is a projection of a headword.

b. Binary Principle

Every head constituent in a syntactic structure has two branches.

c. Coordination Condition

Only constituents of the same kind can be coordinated.

d. Economy Condition

A syntactic structure should contain as few words as possible, and syntactic operations should affect as few words as possible.

e. Preposing Condition

When a material is fronted for emphasis, the smallest maximal projection containing the highlighted material should be fronted.

f. Functional Head Constraint (FHC)

Complements of a particular functional head F type (such as a determiner or complementizer) cannot be moved alone (without moving F as well).

g. Polarity Condition

A polarity article must be c-commanded by an affective constituent (such as a negative, interrogative, or conditional constituent).

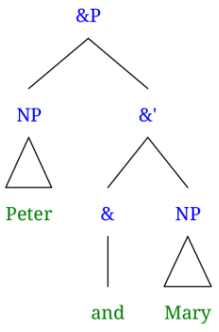
h. Binding Condition

A bound constituent must be c-commanded by a corresponding antecedent.

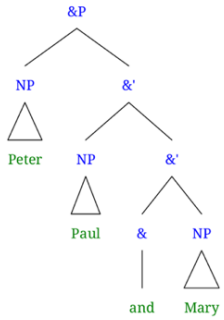
i. C-command

A constituent X can c-command its sister constituent Y, as well as any constituent Z contained within Y.

The author wishes to highlight the coordination condition because this research uses the name of the *English for Business and Professional Communication* study program as its data source. The structure of the program name is a structure coordinated by the conjunction and. Radford (2009a), in his book entitled *An Introduction to English Sentence Structure*, does not explain in detail and give examples of how to describe a structure coordinated by conjunction.



(8)



(9)

Examples (8) and (9) show that the structure $_{\&P}$ has one or more specifier arguments and a complement, where [$_{NP}$ Peter] serves as the internal specifier argument and [$_{NP}$ Paul] as the external specifier argument. Therefore, the author relies on the rules presented by Radford (2009a, 2009b) in both of his books to analyze the EBPC study program's name in this study.

Method

Research design

The phenomenon examined in this study was analyzed using a qualitative approach because the data obtained in this study was verbal. According to Croker (2009, p. 5), in general, "qualitative research entails collecting primarily textual data and examining it using interpretive analysis". In addition to that, the process of analysis and concluding was also conducted using verbal logic, without involving numerical processes. The presentation of findings and their discussion were also conducted verbally by providing detailed descriptions.

Instruments

This study is a linguistic study that is not field research involving specific spatial elements to collect data. The primary instrument of this study is the author himself as the solo researcher. This is in line with what has been stated by Croker, "In qualitative research, the researcher is the primary research instrument" because "researchers themselves collect the data" (2009, p. 11).

The data source for this study is the *English for Business and Professional Communication* study program name, the English version of *Bahasa Inggris untuk Komunikasi Bisnis dan Profesional*. The reason for choosing the English version of the EBPC program name is: (1) the English version is more commonly used in various aspects of program administration, such as in daily usage, brochures, promotions, and so on; (2) this study uses a theoretical basis of English linguistics, which differs from Indonesian linguistic theory; (3) the study program is an English language program for specific purposes, so the linguistic explanation from the English version of its name is given more priority.

Data analysis

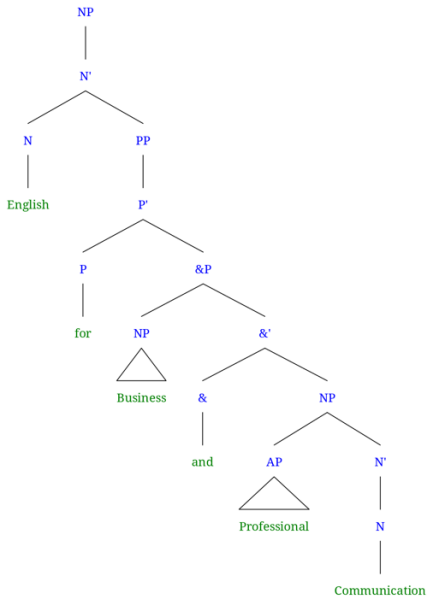
The data analysis began with the constituent analysis of the construction *English for Business and Professional Communication* by separating each part of that construction into its several possible smaller constituents and constructing them again into several possible larger constituents to their respective maximal projections. Then, those possible constituents were analyzed using the X-bar theory's tree diagram, and based on the key rules of syntactic operations from Radford's (2009a, 2009b) works to see whether or not the possible constituents were valid according to the rules of the X-bar theory. From that analysis, the author developed several possible readings of the construction of *English for Business and Professional Communication*. To facilitate the illustrations of the X-bar tree diagram, the author used Hasebe's (2022) syntax tree generator.

Findings and Discussion

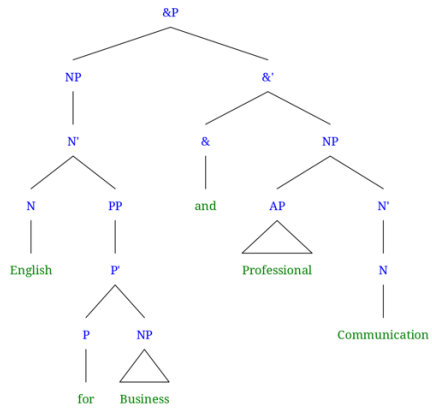
Findings

This research uses a linguistic approach to derive meaning from the program name *English for Business and Professional Communication* (EBPC), specifically a syntactic approach. Syntactically, the program name is analyzed using the X-bar schema to identify its internal structure and explore the possible meanings that can be derived from the construction of the program name.

Based on the X-bar schema applied to analyze the internal structure of the *English for Business and Professional Communication* study program name, two interpretations of this program name were found, namely:



(10)



(11)

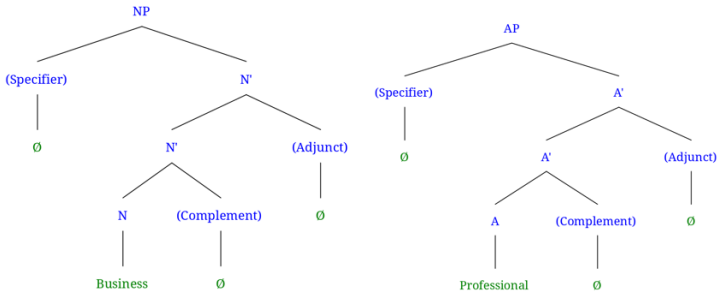
Examples (10) and (11) are two possible structures for *English for Business and Professional Communication*. Because *English for Business and Professional Communication* is not a sentence but a phrase, the highest projection of the X-bar scheme for this construction will not reach the Tense Phrase ($_{TP}$), also known as Inflectional Phrase ($_{IP}$), or the Complementizer Phrase ($_{CP}$). Therefore, the type of highest projection obtained depends on the headword of the entire construction. Thus, it can be seen that the construction in examples (10) and (11) is labeled with different projection types because there are two different ways of reading this construction. In example (10), the entire construction is labeled as an $_{NP}$ (Nominal Phrase) because the whole construction is headed by a noun, namely [$_{N}$ English]. Meanwhile, example (11) is labeled with an $_{\&P}$ (Ampersand Phrase) because this construction is read as a construction headed by the conjunction and, which is usually symbolized by the ampersand ($_{\&}$) symbol. The label $_{\&P}$ can also be replaced with $_{Conj.P}$ (Conjunctional Phrase). However, the ampersand symbol is used as the label for this projection for reasons of writing efficiency. The following is an explanation of these two X-bar schemes according to their rules as presented by Radford (2009a).

Headedness principle

The headedness principle is marked by the selection of a syntactic category to become the maximal projection category in the head constituent position. In other words, the maximal projection of syntactic category XP is determined by the syntactic category of the headword X. For example, the lowest maximal projection of the two structures shown in examples (10) and (11) is [$_{NP}$ Professional Communication] which is headed by [$_{N}$ Communication]. The noun phrase [$_{N}$ Communication] becomes the maximal projection of the head constituent because the projected features are nominal. Meanwhile, the adjective phrase [$_{AP}$ Professional] (which is the maximal projection of the headword [$_{A}$ Professional]) in [$_{NP}$ Professional Communication] acts as a specifier argument that modifies the meaning of [$_{N}$ Communication] to be more specific. This head principle applies to the formation of every head constituent in the *English for Business and Professional Communication* study program name. However, two different features can be projected onto the topmost maximal projection of this program name construction, namely the nominal feature that is headed by the headword [$_{N}$ English] and the coordination or conjunction feature that is headed by the headword [$_{\&}$ and]. So, in example (10), the feature of the whole construction is the nominal feature projected by its headword, which is the noun [$_{N}$ English], where the lower head constituents below it act as complements that modify the meaning of [$_{N}$ English]. However, in example (11), the feature of the whole construction is the coordination feature that comes from its headword, which is the conjunction [$_{\&}$ and] that takes [$_{NP}$ Professional Communication] as its complement and [$_{NP}$ English for Business] as its specifier argument according to the coordination features proposed by Radford (2009a), which will be explained in more detail in the coordination condition section.

Binary principle

Based on the binary principle, every head constituent has two branches. The position of the head constituent is called the nonterminal node, while the place where the branching ends, where the headword is located, is called the terminal node. Therefore, [$_{N}$ English], [$_{P}$ for], [$_{\&}$ and], and [$_{N}$ Communication] are terminal nodes because the entire constituents end at these points. On the other hand, $_{NP}$, $_{PP}$, $_{\&P}$, and $_{AP}$ are nonterminal nodes because they are the highest projection of their respective meaning nodes where the two branches meet. However, [$_{NP}$ Business] and [$_{AP}$ Professional] may appear to be terminal nodes, but in fact, they are not. The complete structure of each head constituent is as follows:



(12)

(13)

What is shown by examples (12) and (13) is the fulfillment of the binary principle of the X-bar schema of the head constituents [$_{NP}$ ^Business] and [$_{AP}$ ^Professional]. Since the positions of the complement, specifier, and adjunct are not occupied by any constituents (which are not mandatory to be occupied by any constituents if not required by the headword), for the sake of writing efficiency, these head constituents are only described as [$_{NP}$ ^Business] and [$_{AP}$ ^Professional].

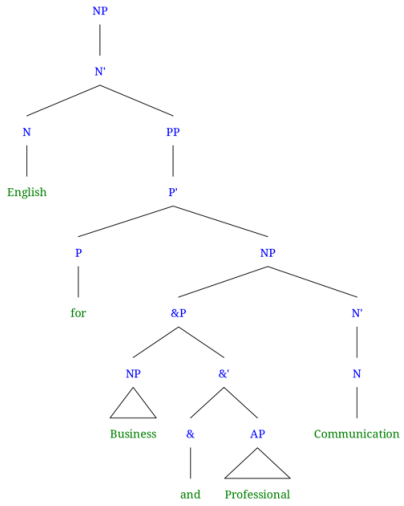
Coordination condition

According to the Coordination Condition, only constituents of the same type can coordinate. This is illustrated by examples (8) and (9). In the construction of *English for Business and Professional Communication* described by both examples (10) and (11), there are constituents of the same type, namely [$_{NP}$ Professional Communication], [$_{NP}$ Business], and [$_{NP}$ English for Business] (which only appears in example (11)), while other constituents are of different types, thus they cannot coordinate according to this principle. The coordination that occurs between these similar constituents is headed by a conjunction, which in this case is [$_{\&}$ and]. Therefore, the maximal projection of this construction is denoted by $_{\&P}$ because it is considered to project the properties of coordination, following the coordinating nature of the conjunction, which is the headword.

The coordination condition that appears in example (10) is maximally projected when [$_{\&}$ and] takes [$_{NP}$ Business] as its specifier and [$_{NP}$ Professional Communication] as its complement. Then, the maximal projection of [$_{\&P}$ Business and Professional Communication] becomes a complement to [$_{P}$ for], which is further maximally projected into [$_{PP}$ for Business and Professional Communication], which is a complement to [$_{N}$ English], and finally maximally projected into [$_{NP}$ English for Business and Professional Communication]. In this interpretation, English does not form a constituent because this construction does not project any properties, and therefore cannot coordinate with [$_{NP}$ Business] or [$_{NP}$ Professional Communication].

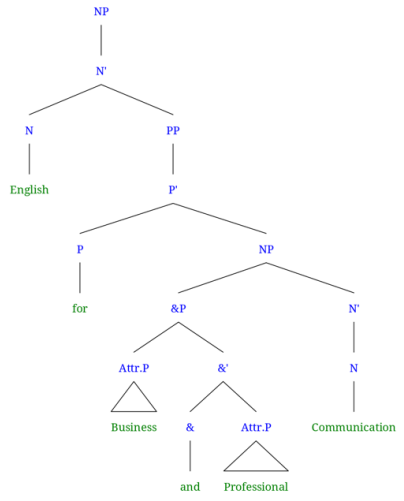
In example (11), the coordination condition shown is different from example (10) because [$_{\&}$ and] takes [$_{NP}$ English for Business] as its specifier and [$_{NP}$ Professional Communication] as its complement. Both the specifier and complement constituents of [$_{\&}$ and] have the same type because they both project the property of tangibility. In this interpretation, [$_{NP}$ Business] cannot coordinate with constituents of the same type because it is a complement argument of [$_{NP}$ English for Business], and thus its position cannot command constituents in [$_{NP}$ Professional Communication], which will be explained in detail in the Constituent Command part.

The coordination condition can also give rise to another interpretation of the name of the *English for Business and Professional Communication* study program. This is possible because other properties can be projected by the word *Business* besides tangibility, namely attributive properties like an adjective that modifies the meaning of other nouns. These attributive properties of the word *Business* enable it to coordinate with [$_{AP}$ Professional] in a coordination construction headed by the main word [$_{\&}$ and]. Therefore, the internal structure of this interpretation can be seen in the following example (14).



(14)

Example (14) shows that [$_{NP}$ Business] and [$_{AP}$ Professional] each occupy the position as the determiner and complement of [$_{\&}$ and], which is then maximally projected into the construction [$_{\&P}$ Business and Professional]. Furthermore, [$_{\&P}$ Business and Professional] occupies the position as the determiner of [$_{N}$ Communication], which is then maximally projected into [$_{NP}$ Business and Professional Communication]. However, both [$_{NP}$ Business] and [$_{AP}$ Professional] have different types, thus violating the coordination condition, which states that only constituents of the same type can be coordinated. However, noun sequences, like fission products, household size, illiteracy rates, and fiber coupler, are common in English (Leech et al., 2009, p. 215). The combination of noun plus noun (N+N), according to Leech et al. (2009, p. 215), "has been reasserting itself in recent centuries". In other words, it is a classic view that nouns can have an attributive property, like adjectives so that they can modify other nouns. For that matter, it is valid to state that the projected property of the word Business and Professional, in this case, is the same, namely attributive, the type of its maximal projection must also adjust to the projected property. Thus, its internal structure is as follows.



(15)

The symbol $_{Attr.P}$ in example (15) is an abbreviation for Attributive Phrase. This abbreviation is used to distinguish it from $_{AP}$ (Adjectival Phrase). The label $_{AP}$ is not used for the word *Business* because its original nature is a noun, which in this case, has an attributive property like an adjective, modifying the meaning of the noun *Communication*. Therefore, the symbol $_{Attr.P}$ is used as a sign of the maximal projection of the phrase *Business and Professional* because of the similarity of the properties they project. Thus, the phrase *Business and Professional* can meet the coordination condition.

Economy condition

According to the economic condition, syntactic structures should contain as few words as possible, and syntactic operations should affect as few words as possible. Referring to the definition of the syntactic structure by Radford (2009a), syntactic structure is a combination of words that form phrases and sentences. The form of phrases in the X-bar schema is the maximal projection of a lexical item. As a result, all maximal projections, such as $_{AP}$, $_{NP}$, $_{\&P}$, $_{PP}$, and $_{Attr.P}$, in the structures shown in the three structural interpretations of the *English for Business and Professional Communication* study program name in examples (10), (11), and (15) are syntactic structures. When these maximal projections combine to form larger maximal projections, those larger maximal projections are also called syntactic structures. Meanwhile, the syntactic operations referred to by Radford (2009a) are movement operations, which involve moving a syntactic structure from one position to another to fulfill the function required by a larger structure, as illustrated in examples (6) and (7). In these examples, [$_{NP}$ Annie], which originally occupied the position as a determiner argument of [$_{VP}$ [$_{NP}$ Annie] bump into a man with an umbrella], moved to the position as a determiner argument of [$_{TP}$ Annie bumped into a man with an umbrella] because the maximal projection $_{TP}$ required a determiner argument as its subject, which could be fulfilled by moving [$_{NP}$ Annie] from the spec-VP position to the spec-TP position.

The syntactic structures $_{AP}$, $_{NP}$, $_{\&P}$, $_{PP}$, and $_{Attr.P}$ in the structures shown in examples (10), (11), and (15) consist of one to three constituent elements. To say whether this number meets the Economy Condition or not requires further steps because Radford does not specify the minimal or maximal number of words as an economic condition that can be combined into a syntactic structure, as it is difficult to determine. According to Radford (2009a, 2009b), the Economy Condition is related to the condition of preposing a maximal projection, meaning that the Economy Condition is related to syntactic operations, including the process of preposing (marking the semantic load of a maximal projection), which will be explained further in the next section, the Preposing Condition.

Preposing condition

The Preposing Condition states that when a material is emphasized, the smallest maximal projection containing the emphasized material should be emphasized as much as possible. The phrase smallest maximal projection refers to the economic condition. In other words, the economic condition sets a limit on the preposing process. Radford provides the following illustration.

(a) He resolutely refused to surrender to the enemy

(b) Surrender to the enemy, he resolutely refused to
(c) *To surrender to the enemy, he resolutely refused

It can be seen in examples (16 a, b, c) that there is a process of projection for the [$_{VP}$ surrender to the enemy] indicated by example (16 b) and [$_{TP}$ to surrender to the enemy] by (16 c). Example (16 b) is an acceptable projection according to syntax, but not (16 c). This is because (16 c) projects [$_{TP}$ to surrender to the enemy], which contains [$_{VP}$ surrender to the enemy] as its complement. In other words, [$_{TP}$ to surrender to the enemy] is a maximal projection, but not the smallest one, so it does not meet the economic requirement for a syntactic operation. Therefore, only the projection of [$_{VP}$ surrender to the enemy] is acceptable syntactically. However, within [$_{VP}$ surrender to the enemy], there are other small maximal projections, namely [$_{PP}$ to the enemy], which contains [$_{DP}$ the enemy], which contains [$_{NP}$ enemy]. The question that arises is: (i) how small can a maximal projection be projected, and (ii) what is the maximum limit of maximal projections that can be projected? Radford (2009a) states that the answer is not clear and may be semantic. Furthermore, he states that if a maximal projection cannot be projected, it may be because the headword of that maximal projection lacks semantic content that makes it suitable as a candidate for highlighting. These limitations on headwords will be further explained in the Functional Head Constraint section.

In the construction of the study program named *English for Business and Professional Communication*, there is no requirement to project a specific maximal projection for highlighting, nor is there a requirement to perform any other syntactic operation, meaning movement operations. This makes the projection requirement not applied or enforced in the construction of *English for Business and Professional Communication*.

Functional head constraint

The principle of the Functional Head Constraint states that the complement of a certain type of functional head F (such as a determiner or a complementizer) cannot be moved alone (without moving F as well). In other words, if we want to perform a syntactic operation (either raising or movement) on the [$_{NP}$ man] in example (8) in the literature review section, we also have to move [$_{D}$ a] together with [$_{NP}$ man] because [$_{NP}$ man] is the complement of the head determiner [$_{D}$ a]. However, as explained in the previous section, there is no requirement to perform syntactic operations in the construction of *English for Business and Professional Communication*. This means that the principle of the Functional Head Constraint cannot be applied in this case.

Polarity condition

According to the Polarity Condition, a polarity item must be commanded by an affective constituent (such as a negative, interrogative, or conditional constituent). One example of a polarity item is anything, which is a pronoun or noun phrase that can only be commanded by a negative, interrogative, or conditional constituent. In the construction of the *English for Business and Professional Communication* study program name, there is no polarity item or

negative, interrogative, or conditional constituents, so the Polarity Condition cannot be applied in this case.

Binding Condition

According to the Binding Condition, a bound constituent must be commanded by a suitable antecedent. One example of a bound constituent is a reflexive anaphor, such as himself, which can only be commanded by a suitable antecedent, namely a singular masculine subject, such as the man. In the construction of the program name *English for Business and Professional Communication*, there are no bound constituents that require a suitable antecedent, so the Binding Condition cannot be applied in this case.

C-command

The principle of C-command states that a constituent X can C-command its sibling constituent Y, as well as any constituent Z, contained within Y. Sibling constituents, are constituents that have the same level in the X-bar schema. Therefore, if constituent X is at the same level as constituent Y, then constituent X is a sibling of Y and can C-command constituent Y as well as any constituent Z that is located under constituent Y.

To understand the C-command, Radford (2009a, 2009b) uses the X-bar schema as a network of trains where each node is a station and each branch is a rail. When we say that constituent X C-commands constituent Y, it means that we have to travel from station X to station Y by taking the train in the North direction, stopping and changing trains at the first station, and then continuing the journey to one or two stations in the South direction. An important note from this illustration is that after stopping at the first station in the Northward departure, the only available path is the path towards the South. This path is called the constituent path in this research.

Based on the analogy presented by Radford, the following are the constituent paths for the first interpretation of the study program name *English for Business and Professional Communication* shown in example (10).

(a) NP cannot c-command any node because it has no sister node as it is the topmost node in the schema.
(b) N can c-command its sister node, which is PP.
(c) N can c-command the nodes contained within PP, i.e., P, &P, NP, &', &, NP, AP, and N.
(d) PP can only c-command its sister node, which is N.
(e) P can c-command its sister node, which is &P.
(f) P can c-command the nodes contained within &P, i.e., NP, &', &, NP, AP, and N.
(g) &P can only c-command its sister node, which is P.
(h) NP can c-command its sister node, which is &'.
(i) NP can c-command the nodes contained within &', i.e., &, NP, AP, and N.
(j) &' can only c-command its sister node, which is NP.
(k) & can c-command its sister node, which is NP.
(l) & can c-command the nodes contained within NP, i.e., AP, and N.
(m) NP can only c-command its sister node, which is &.
(n) AP can only c-command its sister node, which is N.
(o) N can only c-command its sister node, which is AP.

Here is the constituent path for the second interpretation of the name of the *English for Business and Professional Communication* study program indicated by example (11).

(a) $_{\&P}$ cannot c-command any node because it does not have a sister node since it is the topmost node in the schema.
(b) $_{NP}$ can c-command its sister node, which is $_{\&'}$.
(c) $_{NP}$ can c-command the nodes contained in $_{\&'}$, namely $_{\&}$, $_{NP}$, $_{AP}$, and $_{N}$.
(d) $_{\&'}$ can c-command its sister node, which is $_{NP}$.
(e) $_{\&'}$ can c-command the nodes contained in $_{NP}$, namely $_{N}$, $_{PP}$, $_{P}$, and $_{NP}$.
(f) $_{N}$ can c-command its sister node, which is $_{PP}$.
(g) $_{N}$ can c-command the nodes contained in $_{PP}$, namely $_{P}$, and $_{NP}$.
(h) $_{PP}$ can c-command its sister node, which is $_{N}$.
(i) $_{P}$ can c-command its sister node, which is $_{NP}$.
(j) $_{NP}$ can c-command its sister node, which is $_{P}$.
(k) $_{\&}$ can c-command its sister node, which is $_{NP}$.
(l) $_{\&}$ can c-command the nodes contained in $_{NP}$, namely $_{AP}$, and $_{N}$.
(m) $_{NP}$ can c-command its sister node, which is $_{\&}$.
(n) $_{AP}$ can c-command its sister node, which is $_{N}$.
(o) $_{N}$ can c-command its sister node, which is $_{AP}$.

Here is the constituency path for the third interpretation of the program name *English for Business and Professional Communication* shown by example (15).

(a) $_{NP}$ cannot c-command any node because it does not have a sister node as it is the top node in the scheme.
(b) $_{N}$ can c-command its sister node, i.e., $_{PP}$.
(c) $_{N}$ can c-command the nodes contained in $_{PP}$, i.e., $_{P}$, $_{NP}$, $_{N}$, $_{\&P}$, $_{Attr.P}$, $_{\&'}$, $_{\&}$, and $_{Attr.P}$.
(d) $_{PP}$ can only c-command its sister node, i.e., $_{N}$.
(e) $_{P}$ can c-command its sister node, i.e., $_{NP}$.
(f) $_{P}$ can c-command the nodes contained in $_{NP}$, i.e., $_{N}$, $_{\&P}$, $_{Attr.P}$, $_{\&'}$, $_{\&}$, and $_{Attr.P}$.
(g) $_{NP}$ can only c-command its sister node, i.e., $_{P}$.
(h) $_{N}$ can c-command its sister node, i.e., $_{\&P}$.
(i) $_{N}$ can c-command the nodes contained in $_{\&P}$, i.e., $_{Attr.P}$, $_{\&'}$, $_{\&}$, and $_{Attr.P}$.
(j) $_{\&P}$ can only c-command its sister node, i.e., $_{N}$.
(k) $_{Attr.P}$ can c-command its sister node, i.e., $_{\&'}$.
(l) $_{Attr.P}$ can c-command the nodes contained in $_{\&'}$, i.e., $_{\&}$, and $_{Attr.P}$.
(m) $_{\&'}$ can only c-command its sister node, i.e., $_{Attr.P}$.
(n) $_{\&}$ can only c-command its sister node, i.e., $_{Attr.P}$.
(o) $_{Attr.P}$ can only c-command its sister node, i.e., $_{\&}$.

From the constituent path explanation that has been done above, it can be concluded that each interpretation has 14 constituent paths if the topmost node in each interpretation, which indeed does not have a constituent path, is not included in the count.

The conclusion that can be drawn from the syntactic analysis results is that three structure interpretations are found for the *English for Business and Professional Communication* study program name, namely the structure shown by examples (10), (11), and (15). Example (10) shows that the entire program name construction is projected as an $_{NP}$, with [$_{N}$ English] as its head. Meanwhile,

according to example (11), the entire construction is projected as an $_{\&P}$, with [$_{\&}$ and] as its head. The third, namely example (15), which is almost the same as example (10), has a topmost node projected as an $_{NP}$, with [$_{N}$ English] as its head. The difference between examples (10) and (15) lies in the complement for [$_{P}$ for]. In example (10), the complement for [$_{P}$ for] is an $_{\&P}$. Whereas in example (15), the complement for [$_{P}$ for] is an $_{NP}$. The readings of these three syntactic interpretations will be explained in the discussion section.

Discussion

Based on the explanation of the research results, the name of the *English for Business and Professional Communication* study program is syntactically ambiguous. This is because there are several possible interpretations of the same construction, leading to multiple meanings. These different meanings have an impact on the interpretation of the derived products of the program name, such as the program description, objectives, and curriculum. This even affects the translation of the program name into Indonesian, which is used nationally. The following is a discussion of this issue.

The syntactic ambiguity can be seen from several possible structures of a construction. In this case, the construction referred to is the name of the *English for Business and Professional Communication* study program. The possible structures are shown by examples (10), (11), and (15). To facilitate observation, examples (10), (11), and (15) are each written in a format as shown by examples (17), (18), and (19).

(6) [$_{NP}$ [$_{N'}$ [$_{N}$ English] [$_{PP}$ [$_{P'}$ [$_{P}$ for] [$_{\&P}$ [$_{NP}$ ^Business] [$_{\&'}$ [$_{\&}$ and] [$_{NP}$ [$_{AP}$ ^Professional] [$_{N'}$ [$_{N}$ Communication]]]]]]]]

(7) [$_{\&P}$ [$_{NP}$ [$_{N'}$ [$_{N}$ English] [$_{PP}$ [$_{P'}$ [$_{P}$ for] [$_{NP}$ ^Business]]]]] [$_{\&'}$ [$_{\&}$ and] [$_{NP}$ [$_{AP}$ ^Professional] [$_{N'}$ [$_{N}$ Communication]]]]]

(8) [$_{NP}$ [$_{N'}$ [$_{N}$ English] [$_{PP}$ [$_{P'}$ [$_{P}$ for] [$_{NP}$ [$_{\&P}$ [$_{Attr.P}$ ^Business] [$_{\&'}$ [$_{\&}$ and] [$_{Attr.P}$ ^Professional]]] [$_{N'}$ [$_{N}$ Communication]]]]]]]

Example (17) is another writing format of example (10), example (18) is of example (11), and example (19) is of example (17). Each square bracket is given a different color to make it easier to observe the scope of constituent commands. From the use of these colors, it can be seen that examples (17), (18), and (19) indicate the different scopes of constituent commands.

The largest scope of c-command in example (17) is marked by the red square bracket with the headword [$_{N}$ English]. The second-largest scope of the c-command is marked by the orange square bracket with the headword [$_{P}$ for]. In other words, both of these headwords encompass the entire construction, so it can be said that they can constitute other constituents in this construction. Meanwhile, the third-largest scope is marked with the green square bracket with the headword [$_{\&}$ and] encompassing constituents such as [$_{NP}$ Business] and [$_{NP}$ Professional Communication]. This can be interpreted that [$_{NP}$ Business] and [$_{NP}$ Professional Communication] are constituents of the same type in an equal position coordinated by [$_{\&}$ and]. Therefore, if the coordinating function is removed, two constructions can be obtained as follows:

(20) [$_{NP}$ ^English for Business]
(21) [$_{NP}$ ^English for Professional Communication]

From the two constructions shown in examples (20) and (21), it can be concluded that the *English for Business and Professional Communication* study program is an English language program with two specific goals, namely business and professional communication.

In example (18), the largest c-command domain is marked by the red brackets with the head [$_{\&}$ and]. This means that there are two similar constituents in an equal position coordinated by it. In this case, the two similar constituents are each marked by orange brackets, namely:

(22) [$_{NP}$ ^English for Business]
(23) [$_{NP}$ ^Professional Communication]

From examples (22) and (23), it can be concluded that the *English for Business and Professional Communication* study program is a study program that has two specializations. The first specialization is in the field of English language for business purposes, while the second specialization is in the field of professional communication.

The largest scope in example (19) is the same as in example (17), which is the constituents with the headwords [$_{N}$ English] and [$_{P}$ for]. The difference lies in the constituents of the same type in an equivalent position coordinated by [& and]. In example (19), these same-type constituents are [$_{Attr.P}$ Business] and [$_{Attr.P}$ Professional], both of which are within the c-command scope of the headword [$_{N}$ Communication] marked by the green brackets. Therefore, if the coordination function is released, the following two constructions can be obtained:

(24) [$_{NP}$ ^English for Business Communication]
(25) [$_{NP}$ ^English for Professional Communication]

From examples (24) and (25), it can be concluded that the *English for Business and Professional Communication* study program is a language study program with a specific goal, namely in the field of communication. Furthermore, the field of communication, which is the specific goal of the English language study, has two sub-fields, namely business communication and professional communication.

As a conclusion of the discussion section on syntactic ambiguity, there are three possible readings of the construction *English for Business and Professional Communication*, namely (i) a language study program with two specific goals, namely business and professional communication, (ii) a study program that has two specializations, namely English for business purposes, and professional communication, and (iii) an English language study program with a specific goal in the field of communication, which is divided into two sub-fields, namely business communication and professional communication. Two of these readings, i.e. (i) and (iii), indicate that the *English for Business and Professional Communication* study program is a language study program for specific purposes.

The other reading, i.e. (ii), indicates that this program is both an English language study program and a communication study program.

Conclusion

Referring to the aim of this research, which is to describe the meaning that can be drawn from the program name *English for Business and Professional Communication* from a syntactic approach, it can be concluded that, from a syntactic approach, there are three possible structural interpretations of the syntactic analysis, namely (i) an English language program with two specific aims, namely business and professional communication, (ii) a program with two specializations, namely English for business purposes and professional communication, and (iii) an English language program with a specific goal in the field of communication, which is divided into two subfields, namely business communication and professional communication.

Based on the findings of this study, the author suggests that Politeknik Tonggak Equator, especially the academic department leaders and the *English for Business and Professional Communication* study program leaders, determine which structural interpretation will be referred to as the identity of this study program and determine the breadth of the field of study based on the structural interpretation. To future researchers, it is suggested to continue this research from the reader's perspective because the scope of this research is limited to syntactic approach interpretation only. Continuation of this research is necessary to find out the meaning from the reader's point of view so that stakeholders can understand the reader's expectations towards the *English for Business and Professional Communication* study program and prepare themselves to face them with a strategy that is based on scientific studies.

References

Aitchison, J. (2010). *Aitchison's linguistics* (3rd ed.). London: Teach Yourself.

Al-Sulaimaan, D. M. M. D., & Khoshaba, L. M. (2018). Context as a basis for understanding pragmatic ambiguity with reference to Arabic. *International Journal of English Literature and Social Sciences*, *3*(5), 768–775. https://doi.org/10.22161/ijels.3.5.12

Almahameed, Y. S. (2020). Resolving lexical and structural ambiguity by Jordanian learners of English. *Journal of Critical Review*, *7*(8), 2565–2573.

Anderson, C. (2018). *Essentials of linguistics.* Hamilton: McMaster University.

Bucaria, C. (2004). Lexical and syntactic ambiguity as a source of humor: The case of newspaper headlines. *Humor*, *17*(3), 279–309. https://doi.org/10.1515/humr.2004.013

Burton-Roberts, N. (2022). *Analysing sentences: An introduction to English syntax* (5th ed.). London: Routledge. https://doi.org/10.4324/9781003118916

Charina, I. N. (2017). Lexical and syntactic ambiguity in humor. *International Journal of Humanity Studies (IJHS)*, *1*(1), 120–131. https://doi.org/10.24071/ijhs.2017.010113

Chomsky, N. (2002). *On nature and language*. Cambridge University Press.

Croker, R. A. (2009). An introduction to qualitative research. In J. Heigham & R. A. Croker (Eds.), *Qualitative research in applied linguistics: A practical introduction* (pp. 3–24). London: Palgrave Macmillan. https://doi.org/10.1057/9780230239517_1

Demir, C. (2020). Lexical and structural ambiguities in student writing: An assessment and evaluation of results. *African Educational Research Journal*, *8*(3), 100–108. https://doi.org/10.30918/AERJ.8S3.20.077

Hasebe, Y. (2022). *RSyntaxTree: Syntax tree generator made with Ruby*. The MIT License. https://yohasebe.com/rsyntaxtree/

Kemenristekdikti. (2017). *Nama program studi pada perguruan tinggi*. Menteri Riset, Teknologi, dan Pendidikan Tinggi Republik Indonesia.

Key, A. (2018). *Language between god and the poets: Maʿnā in the eleventh century*. Oakland, CA: University of California Press. https://lccn.loc.gov/2018009383

Khawalda, M. I., & Al-saidat, E. M. (2012). Structural ambiguity interpretation: A Case study of Arab learners of English. *Global Journal of Human Social Science*, *12*(6), 0–6.

Kurniasari, M. D. (2017). Tolerating structural ambiguity in grammar learning. *International Journal of Indonesian Education and Teaching*, *1*(1), 85–94. https://doi.org/10.24071/ijiet.v1i1.330

Leech, G., Hundt, M., Mair, C., & Smith, N. (2009). *Change in contemporary English: A grammatical study*. Cambridge: Cambridge University Press.

Mahendra, I. G., Maharani, P. D., & Karya, I. W. S. (2022). A structural ambiguity analysis in sentences found in the skeleton key novel. *Journal of Language and Applied Linguistics*, *3*(1), 1–9. https://doi.org/10.22334/traverse.v3i1.50

Oaks, D. D. (1994). Creating structural ambiguities in humor: Getting English grammar to cooperate. *Humor*, *7*(4), 377–402. https://doi.org/10.1515/humr.1994.7.4.377

Ortega-Martín, M., García-Sierra, Ó., Ardoiz, A., Álvarez, J., Armenteros, J. C., & Alonso, A. (2023). *Linguistic ambiguity analysis in ChatGPT*. Retrieved from http://arxiv.org/abs/2302.06426

Puspitasari, J., & Beratha, N. L. S. (2019). Lexical and structural ambiguity found in articles in The Jakarta post daily newspaper. *Jurnal Humanis*, *23*(1), 19–24. https://doi.org/10.24843/JH.2019.v23.i01.p04

Radford, A. (2009a). *An introduction to English sentence structure*. Cambridge: Cambridge University Press.

Radford, A. (2009b). *Analysing English sentences: A minimalist approach*. Cambridge: Cambridge University Press. www.cambridge.org/9780521516976

Yule, G. (2010). *The study of language* (4th ed.). Cambridge: Cambridge University Press. http://www.cambridge.org/9780521765275%0A

Zhang, Y., & Ding, H. (2020). The effect of ambiguity awareness on second language learners' prosodic disambiguation. *Frontiers in Psychology*, *11*(1), 1–11. https://doi.org/10.3389/fpsyg.2020.573520

Zimmermann, T. E., & Sternefeld, W. (2013). *Introduction to semantics: An essential guide to the composition of meaning*. Berlin/Boston: De Gruyter Mouton.