

CHAPTER II

LITERATURE REVIEW

B.1. Theoretical Framework

This section will focus on related theories to be used in the analytical process, from collecting the VP to analyzing its constituents and structures. Thus, it covers syntax, syntactic structures, phrase and its various types, and verbal phrase.

B.1.1. Syntax

In the study of syntax, there are some elements that will be gained such as syntactic elements, it consists of phrases, clauses, and sentences. In the syntax there is also the phrase structure rule. It consists of the categories. Here, the writer gives some reviews of the definition of syntax before explaining about those elements.

1. The Definition of Syntax

According to Valin (2001), syntax is the study of language structure and its relations, including grammatical relations, dependency relations, and constituent structure. The study of syntax addresses the structure of sentences and their structural and functional relationship to one other (the sentences and the sentence structure). syntax deals with how sentences are constructed, and users of human languages employed a striking variety of possible arrangements of the element in sentences, mediating meaning, where words are organized into phrases and sentences. One of the most

important of syntactic properties of language is the simple sentences. It can be combined in various ways to form complex sentences. According to Fromkin et al., (2007), defining the important role of the syntax is to describe the relationship between the meaning of a particular group of words and the arrangement of those words.

Based on the explanations about the syntax, in short, the researcher explains that syntax is the part of the linguistic study which concern to the rule of arrangement word into phrases and sentences. The function of syntactic analysis is to analyse the sentence units, then analyse elements of sentence structure, clause structure and phrase structure, and finally specify the class of word.

2. Syntactic Construction

According to Miller (2002), a construction is the organisation of smaller units into bigger units, words into phrases, clauses, and sentences.

a. Sentence

Regarding Allen (1972:3), a sentence is traditionally defined as a group of words which expresses a complete thought. A complete thought necessarily expresses a thought more clearly. A sentence does not consist simply of a string of words. Nelson (2002:13) explains that the grammar deals with the rules for combining words into larger units. The largest unit described in grammar is normally the sentence. According to Fromkin et al., (1988:164), sentences are not simply random strings of words and morpheme, however conform to specific patterns

determined by the syntactic rules of language. It means that sentence is not simple form. For example: Mother washes the clothes every day. This is a sentence which grouped from some words with a certain pattern of arrangement, alteration, and inflection. From the explanations about the sentence above, the writer concludes that the largest unit of syntactic analysis is the sentence. Sentence are formed by a group of words that not only has a simple form, however it can be combined in various ways to form complex sentence.

b. Clause

According to Nigel (2021), A clause contains at least two elements (a subject and a verb) and expresses one idea, with independent clauses standing on their own and dependant clauses connected to the independent clause. The independent clause can be a sentence, besides dependent clause can be a noun clause, adjective clause, and adverb clause.

Miss Bates chattered on for hours. It is the example of sentence. However it is not only known as sentence, it also instances of main clauses. This clause comprises of the phrase Miss Bates refers to teacher, chattered on refers to action and for hours refers to the adverb of time. Based on the explanation above, the writer briefly explains that the arrangement of meaning words and has both „a subject and a verb“ that can form a sentence or part of sentence is commonly known as a clause.

c. Phrase

Wren and Martin (2000:2) states phrase is a group of words which makes sense, however not complete sense. In general, a clause can be divided into the operational constituents of Subject, Predicate, Complement and Adjunct. The constituents all of them could be phrases. The head of phrase can be modified by any construction or words. It can be placed before or after the head of phrase. The explanation of each point is discussed further into detail explanation.

B.1.2. Syntactic Structure

1. Category

Radford (1997:50) explains a grammatical category is a class of expressions which share a common set of grammatical properties. The syntactic evidence for assigning words to categories essentially relates to the fact that different categories of words have different distributions. Van Valin (2001:7) explains that syntactic category is relatively little number of classes or category of single words. It is known as lexical category. The 19 most important lexical categories are noun (N), verb (V), prepositional (P), adjective (A), and adverb (Adv).

In addition, Van Valin (2001:7) argues that languages may also contain non-lexical of functional categories or a number of minor categories. They are determiner (D), auxiliary verb (Aux), conjunction (Con), and degree words. The category determiner includes articles like a and the and auxiliary verb includes modal (will, can, shall) and non- modal

(be, have). While category conjunction includes and, but and or, then degree of words includes too, very and quiet. Each constituent in the sentences belong to a specific syntactic category.

2. Constituent

Constituent is the most important and basic notion in syntactic theory. According to Carnie (2002:64), constituent is a group of words which has functions together as a unit. The smallest constituent is a single word. The constituent may consist of head, modifier and arrangement of words. Although the term string is often used technically to refer to sequences of words, sentences are not merely strings of words in an acceptable order and making sense. They are structured into successive components, consisting of single words or groups of word.

B.1.3. X-Bar Theory

In linguistics, X-bar theory is a framework for phrase-structure grammar and a theory, which was first proposed by Noam Chomsky in 1970, that explains how syntactic categories are formed (Matthews, 2014). According to Kornai et al., (1990), x-bar theory is widely regarded as a substantive theory of phrase structure properties in natural languages. To put in different view, basically, language involves different levels of tokens (or units), take noun as a simple example: (1) basic unit is word (e.g. Niken); (2) the next level is group (e.g. beautiful Niken); (3) the next level is phrase (e.g. this beautiful Niken). Chomsky labels word-level as bar 0 (X); group-level as bar 1 (X'); and phrase level as bar 2 (X'') or usually symbolised as XP.

The "X" in the X-bar theory is equivalent to a variable in mathematics: It can be substituted by syntactic categories: (1) Noun (N) and Noun Phrase (NP), Verb (V) and Verb Phrase (VP), Adjective (Adj.) and adjective phrase (adj. P), and preposition (P) and prepositional phrase (PP), and adverb (Adv. P) and adverbial phrase (Adv. P). According to WUNDERLICH (1996), lexical categories are, focusing on nouns, verbs, adjectives, and pre/postposition/adverbs, with nouns being the most unmarked and marked categories. Major lexical categories include Noun, Verb, Adjective, Adverb, and Preposition (Hai-yang, 2009). There are many more of lexical categories, but in this research will focus only on the verb phrase category.

B.1.4. Adjective Phrase (Adj. P)

To analyze the structure of the adjective phrase, let us consider the construction *quite happy with the results*. In this case, *quite* functions as a degree adverb that modifies the adjective *happy*, with the adjective serving as the head of the phrase. This creates an adjective phrase. However, if the researcher incorporate the prepositional phrase *with the results*—which will be not analyzed further here, however present simply as a triadic structure—where should it be placed within the overall structure? Clearly, the prepositional phrase must form a constituent with *happy*. This can be verified through substitution tests, as *quite happy with the results* can be replaced by expressions such as *quite like it* or *quite so*. Consequently, the tree structure must be redrawn as follows:

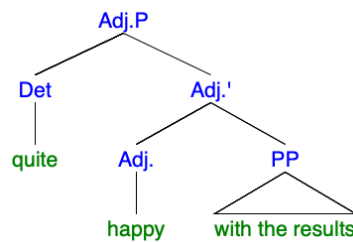


Figure 1. Adj.P example 1

The analysis begins with a categorical assessment, followed by the phrasal analysis. The result reveals two adjective phrases: a larger one modified by the degree adverb and a smaller one comprising the adjective as the head and the prepositional phrase as an optional extension. The question then arises: what should we call this intermediate constituent? Chomsky's 1970 proposal introduced the notion of an intermediate projection, referred to as a "bar" level, which is now conventionally represented as A-bar (A' for adjectives).

B.1.5. Adverbial Phrase (Adv. P)

In the phrase *quite independently of other people*, the researcher encounter an adverb phrase. To analyze its internal structure, the researcher can construct it step by step. The word *quite* functions as a degree adverb that modifies the adverb *independently*, with *independently* serving as the head of the phrase. This results in the formation of an adverb phrase. However, when the prepositional phrase *of other people* is added—whose internal structure is not analyzed further here and can be represented as a triangle—the question arises: where should it be placed in the syntactic structure? Additionally, which node serves as the "mother node" of the prepositional phrase?

Clearly, the prepositional phrase must form a constituent with *independently*. This can be demonstrated using the pro-form substitution test, as

the entire construction *independently of other people* can be replaced by the *so*. Consequently, the tree structure must be revised as follows:

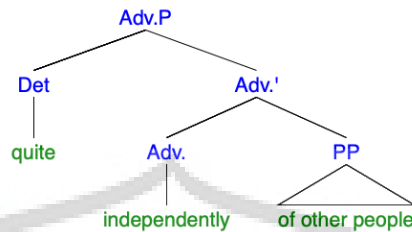


Figure 2. example of Adv. P

First, a categorical analysis is conducted, followed by an expanded phrasal analysis. The result reveals two adverb phrases: a larger, higher-level phrase with the degree adverb *quite* as a modifier, and a smaller, internal phrase comprising the adverb *independently* as the head and the prepositional phrase as an optional extension. Following Chomsky's 1970 proposal, this internal structure is referred to as an "adverb bar" (Adv'), which is now more conventionally written as an intermediate projection, Adv-bar (Adv').

B.1.6. Prepositional Phrase (PP)

In the phrase *straight into the pond*, the prepositional phrase *into the pond* functions as an adverbial. To understand its internal structure, begin with a categorical analysis. The word *straight* is an adverb, *into* is a preposition, and *the pond* is a noun phrase consisting of a determiner *the* and a noun *pond*. For the purpose of this analysis, the internal structure of the noun phrase is not further examined and is instead represented as a simplified triangle as follows:

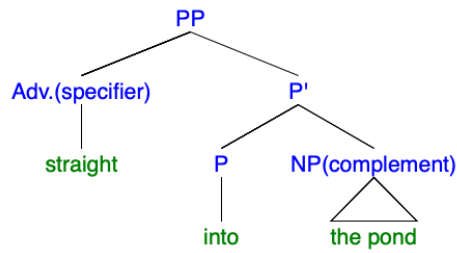


Figure 3. PP example

The preposition *into* and the noun phrase *the pond* together form a constituent. This is demonstrated through substitution tests, as the phrase *into the pond* can be replaced by *there* in a phrase such as *straight there*, or by *where* in an echo question such as *straight where?* These tests confirm that *into the pond* functions as a single syntactic unit.

When the adverb *straight*, which serves as the specifier of the prepositional phrase, is included, the resulting structure is a prepositional phrase with a hierarchical arrangement. The internal prepositional phrase *into the pond* is represented by the projection P-bar (P'), adhering to standard notational conventions. This structure effectively captures the syntactic organization of a prepositional phrase, with *into* as the head, *the pond* as the complement, and *straight* as the specifier.

B.1.7. Verb Phrase (VP)

1. The notion of the Verb Phrase

In linguistics, a verb phrase or VP is a syntactic unit composed of at least one verb and the dependents of that verb – objects, complements and other modifiers, but not including the subject. Carnie (2007:72) defines the Verb Phrase is one of the categories headed by the Verb; minimally a VP

consist of a single verb. Van Valin (2001:5) explains a verb phrase refers to a phrase that composed of at least one verb and the dependents of the verb. The verb has the function as the headword of the phrase. Verb Phrase always contain a Verb, which may be followed by other constituents (Fromkin and Rodman, 1988:170)

The VP has been extensively studied from these two perspectives: there are many studies which reflect the syntactic approach, but there are also others which reflect the morphologic approach (Rodriguez, 248). Moreover, Rodriguez explains that the syntactic modifications of VPs are related to the syntactic categories of Subject, Object, Complements and Adverbials, which are realised by NP, AdjP, AdvP, PP and, sometimes, even by tensed and non-tensed clauses. Radford (1988:231) describes VP can be expended by the addition of appropriate Specifiers into VP constituent.

★ The phrase *never read the books at home* provides a useful example for analyzing the structure of the verb phrase.

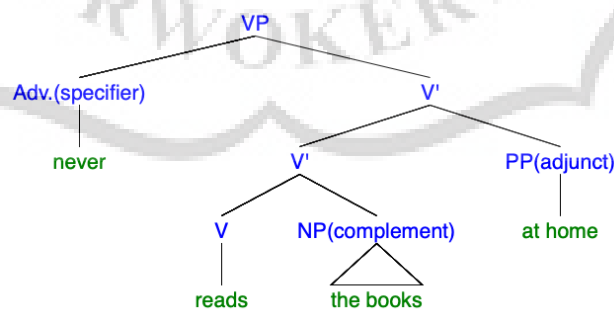


Figure 4. VP example

The verb phrase consists of several components: an initial adverb (never), the verbal head (read), and two phrasal categories, the noun phrase

(the books) and the prepositional phrase (at home). For simplicity, the noun and prepositional phrases can be represented as triangles.

The constituency of the noun phrase *the books* and the prepositional phrase *at home* can be easily demonstrated using substitution tests. For example, *the books* can be replaced by the pronoun *them*, while *at home* can be replaced by *there* or questioned in an echo question such as *where?*. These tests confirm that both *the books* and *at home* function as distinct constituents within the verb phrase.

The core elements of the verb phrase are the optional specifier (never) and the verbal head (read), which together form the foundation of the verb phrase. The question arises, however, of how to incorporate the two additional phrasal constituents—the noun phrase and the prepositional phrase—into the structure. To achieve this, intermediate nodes must be introduced. In this case, two V-bar (V') nodes are required to accommodate the noun and prepositional phrases.

Thus, the verb phrase, like other phrasal categories, consists of three key components: an optional specifier (never), the phrasal head (read), and a hierarchical structure of intermediate V-bar nodes that integrate additional phrasal constituents (the books and at home). This layered structure highlights the syntactic organization of the verb phrase, allowing for the representation of its complexity and constituent relationships.

2. The structure of the Verb Phrase

a. Subject

Morley (2000:92) states that the subject is inherently associated with specification of amenity (or 'thing', as it is frequently referred to in systemic literature). Syntactically, it is typically associated with a nominal phrase or clause. In view of its agreement with the verb, the subject therefore answers the question 'Who/what does/did the verbing?' or 'Who or what is/was the complement?' or, in respect of a passive sentence, 'Who or what is/was verbed?'

b. Predicator/Verb

The Predicator is associated with the verbal phrase and realizes the process, of which there are three main semantic types recognized in systemic literature: Material (earlier called 'action' process) e.g., wash, climb, cook, etc. Mental processes are processes of 'sensing', in that in place of an actor they involve a senser and a phenomenon in processes of perception (e.g., see, hear), affection (e.g., like, fear) and cognition (e.g., think, know). Relational processes are processes of 'being', of which there are two types - identification and attribution.

c. Modifiers

Miller (2002:1) defines that the discussion of syntax cannot be separated with the central idea, the words are grouped into phrases and that groupings typically bring together heads and their modifiers. The

head as conveying a central piece of information and the modifiers as conveying extra information.

1) Complements

Morley (2000:99) presents complements initially as the part of the sentence which answers 'Who or what?' after the verb. In this vein, too, it would be described as being associated typically with the nominal phrase (or clause). Complement is that nominal phrase which is not the subject of the clause. The scope of the complement is to refer to the completive function which it fulfils after the verb. Complements expand X into X-bar. Complement is an obligatory element, completing the meaning of its head. Miller (2002:49) states that complements are modifiers which typically occur next to the head (but not always) and which are required or excluded by particular lexical items. For example, Sarah devoured the cakes in the kitchen last night. Sarah and the cakes are complements of devoured. Devoured requires a noun phrase to its left and a noun phrase to its right – it means that Sarah devoured is unacceptable.

2) Adjunct

Morley (2000:99) defines that the adjunct is most frequently associated with adverbial and prepositional phrases, though occasionally it may be realized by a nominal phrase. While extensive complements have the potential of being the subject but are not, adjuncts do not have this potential. Adjunct is both sisters

and daughter of X-bar and it expands X-bar into X –bar (Radford, 1988:177). Adjunct expands X'' into X'' and it is an optional element which has more loosely related to its head. Adjuncts are not necessarily next to the head; indeed, they are typically at a distance from the verb. They are not obligatory. Whereas complements „complete“ the meaning of the verb, giving it both syntactic and semantic completion, adjuncts merely provide additional information that could be dispensed with (Miller, 2002:49). As the example; in the sentence Sarah devoured the cakes in the kitchen last night, in the kitchen and last night are adjuncts; this sentence is acceptable and complete without them – Sarah devoured the cakes. Adverbs of time and location are always adjuncts.

3. The Construction of the Verb Phrase by Using X-bar Theory

The tree diagram below will draw how Verb Phrase constructed by X-Bar theory, and this is the common rule of three diagram based on phrase-rule maker by Radford (1988:231):

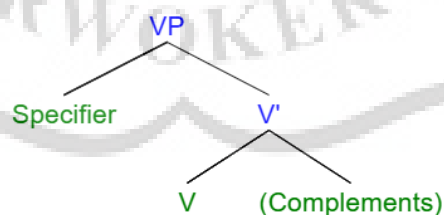


Figure 5. Verb Bar

Radford (1988:229) V-bar can be expended by the addition of appropriate Specifiers which take *to* (to have/be) into V-double bar constituent. Specifiers are sister of V-bar and daughter of V-double bars.

Complements are sisters of V and daughters of V-bar. There is an example as follows: [to read a book].

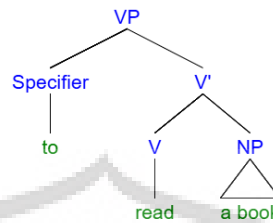


Figure 6. VP construction example

The Verb Phrase of *to read a book* is a full Verb Phrase, it identified by *be* as the specifier (ASP) of the head reading. The complement of this Verb Phrase is Noun Phrase, *a book*. In the Verb Phrase the distinction of the Complements and Adjuncts are important to be drawn. The distinction between Complement and Adjunct is implicitly drawn using rather different terminology. According to Radford (1988:231), he distinguishes between internal and external post-modifiers. Internal postmodifiers show a strong degree of what he calls cohesion to their governing Verb. external post-modifiers show less cohesion to the verb.

4. The Construction of the Verb Phrase by Using X-bar Theory

Testing the status of complements and adjuncts can be effectively done using phrase structure rules. These rules help distinguish between specifiers, adjuncts, and complements by specifying their relationships with the verb and its projections in a syntactic structure. For example, the Specifier Rule (V'' Specifiers + V) indicates that specifiers are sisters of V'' and daughters of V'' . The Adjunct Rule (V'' V'') shows that adjuncts are

both sisters and daughters of V⁰, meaning they are optional elements that add additional information but do not alter the core meaning of the verb. The Complement Rule (V⁰ V + PP) demonstrates that complements, such as prepositional phrases (PP), are sisters of V and daughters of V⁰, and they are required for completing the meaning of the verb. These distinctions help clarify the different syntactic functions and roles that these elements play in sentence structure.

B.1.8. Noun Phrase (NP)

In the phrase *the ugly box of crayons with ten colours*, the x-bar schema would look like as follows:

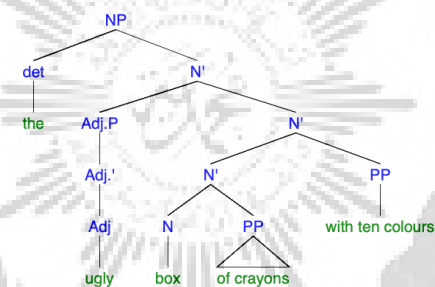


Figure 7. NP example

In syntactic analysis, three distinct intermediate levels are identified within the structure of a phrase. These levels are referred to as intermediate projections, bar projections, or simply bar levels. The term bar projections is used because a bar notation is added to indicate that these levels represent intermediate stages—they are neither the topmost level nor the lowest level of the phrase.

At the base of the structure lies the head of the phrase, which, as expected, determines the category of the phrase. For instance, in a noun phrase, the head is a noun (N), and this noun serves as the foundation for the phrase's structure. The

intermediate projections are labelled accordingly, such as N-bar (N'), to reflect the head of the phrase. This distinction is essential, as it differentiates noun phrase structures from those of verb phrases (V-bar) or adjective phrases (Adj-bar).

The head projects its features upwards, forming successive intermediate levels until it reaches the highest level of the phrase, referred to as the maximal projection. The maximal projection represents the complete phrase and is the highest point to which the head's features can extend. Thus, the structure comprises three key components: the head, the intermediate projections, and the maximal projection. These levels collectively illustrate how the head percolates its features upwards through the phrase's hierarchy.

The question arises as to why the structure of phrases is divided into multiple levels and whether three distinct bar levels are truly necessary or justified. Upon closer examination, the necessity of these levels can be demonstrated using constituency tests. Consider the phrase *the ugly box of crayons with 10 colours*.

First, focus on the constituent *box of crayons*. This portion can be replaced with the *one*, as in the sentence: *I want the ugly box of crayons with 10 colours, not the nice one with 20 colours*. Here, *one* clearly replaces only *box of crayons*, excluding modifiers such as *ugly* and *with 10 colours*. This indicates that *box of crayons* forms a distinct constituent, which justifies the need for an intermediate level to represent it.

Next, we examine the larger constituent *the ugly box of crayons with 10 colours*. To test whether this level is justified, we can observe that the entire

structure below the determiner can be replaced by *one*, as in: *I want the ugly box of crayons with 10 colours, not the nice one*. Here, *one* replaces everything under the determiner *the*, confirming that all elements at this level together form a constituent, thus necessitating a second bar level.

Finally, the role of the determiner and its relationship to the phrase must be addressed. Consider a variation such as *this ugly box of crayons with 10 colours*. In a context where there are two such boxes, one might say: *I want this box of crayons with 10 colours, not that one*. In this case, *one* replaces the entire structure *box of crayons with 10 colours*, excluding the determiner. This demonstrates the need for a higher bar level (N-bar) that separates the determiner from the rest of the noun phrase, allowing the latter to function as a constituent on its own. Thus, the three bar levels—corresponding to intermediate projections—are fully justified. Each level represents a distinct constituency that cannot be adequately captured without the hierarchical structure provided by X-bar theory.

Let us examine the specific order of elements within the noun phrase *the ugly box of crayons with 10 colours*.

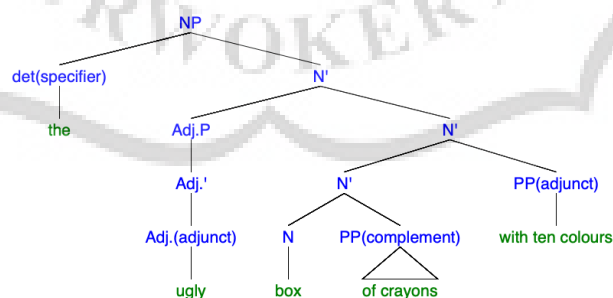


Figure 8. Specifier, adjunct and complement example

In the figure above, notably, the prepositional phrase *of crayons* appears closest to the head noun *box* and functions as a complement. A complement, as

the name suggests, serves to complete the meaning of the head noun. For instance, if there were two boxes—one *box of crayons* and one *box of tools*—and someone requested *the box of crayons*, it would not suffice to simply say *the box*. Without specifying *of crayons*, the intended meaning would be incomplete. Thus, complements are obligatory because they provide essential information necessary for the interpretation of the phrase. Syntactically, complements are positioned closest to the head noun, forming a single constituent with it.

In contrast, the prepositional phrase *with 10 colours* and the adjective phrase *ugly* are not complements but adjuncts. As the term implies, adjuncts provide additional, non-essential information. While adjuncts may enhance the meaning or clarify details, they are not required for the basic understanding of the phrase. For instance, one could say *this ugly box* without it being ungrammatical, but the absence of the complement *of crayons* would render the meaning ambiguous.

The primary syntactic difference between complements and adjuncts lies in their proximity to the head. Complements are directly adjacent to the head and form a constituent with it, while adjuncts are positioned farther away. Adjuncts cannot be sisters to the head; instead, they are hierarchically separated. Furthermore, a phrase may contain multiple adjuncts, each contributing additional information. For example, if we were to add another prepositional phrase indicating the location of the box, such as *in the corner*, it would also serve as an adjunct. In such cases, additional intermediate N-bar levels would be required to incorporate these adjuncts into the phrase structure.

Finally, the determiner *the* serves as the specifier of the noun phrase. Specifiers occupy a distinct position within the phrase, providing additional clarification or definiteness, however they are not directly involved in forming a constituent with the head noun. Together, the complement, adjuncts, and specifier illustrate the hierarchical organization and syntactic roles within the noun phrase.

B.1.9. Immediate Constituent Analysis (ICA)

Immediate Constituent Analysis (ICA) is a widely accepted method in Generative Grammar that examines the meaning of phrases and clauses, not their expansion or parsing (BARRI, 1978). Immediate constituent analysis is a method used in linguistics to break down sentences into their smaller components, known as constituents. According to Dharmawan (2014), Immediate Constituent (IC) analysis is a method for analyzing sentences, focusing on the parts of a word or phrase that make up a sentence. This technique helps in understanding the structure and grammar of a sentence by identifying how words group together into phrases and how these phrases connect to form larger units. It emphasizes the hierarchical nature of language, which is essential for constructing syntactic trees and applying phrase structure grammar.

Immediate constituent analysis allows for a systematic approach to understanding sentence structure by dividing sentences into nested layers of meaning. Each immediate constituent can be further analyzed, showing how phrases relate to one another within the larger context of the sentence. This method highlights the importance of grouping words into phrases, which can clarify the grammatical roles they play. By using immediate constituent analysis, linguists

can identify both simple and complex sentences, helping to illustrate variations in syntax. The concept is foundational for creating syntactic trees, where each branch represents different levels of constituency in the structure of a sentence.

The hierarchical structure in syntactic trees consists of various components, including the root node (S, representing the sentence), internal nodes (such as NP for "noun phrase" and VP for "verb phrase"), terminal nodes (individual words), and connecting branches that link these elements. Two primary approaches are used to analyze these structures: top-down and bottom-up. In top-down analysis, the sentence (S) is broken into its major constituents, such as NP and VP, and further divided into smaller units until individual words are reached (e.g., $S \rightarrow NP VP \rightarrow Det N V NP \rightarrow$ The dog chased the cat). Conversely, bottom-up analysis begins by grouping individual words into phrases, such as combining "The" and "dog" to form an NP and "chased" with "the cat" to form a VP. These phrases are then combined step by step to construct the complete sentence (e.g., $The + dog \rightarrow NP$, $chased + the + cat \rightarrow VP$, $NP + VP \rightarrow S$). This process systematically illustrates the hierarchical relationships between sentence elements.

Labelling constituents in tree diagrams involves three key types of labels: phrase labels, word-level labels, and functional labels. Phrase labels like NP (noun phrase), VP (verb phrase), PP (prepositional phrase), AP (adjective phrase), and AdvP (adverbial phrase) are used to represent larger syntactic units within a sentence, such as "The big dog." Word-level labels categorize individual words based on their part of speech, including N (noun), V (verb), Adj (adjective), Adv

(adverb), Det (determiner), and P (preposition), for example: "dog," "run," "happy," "quickly," "the," and "on." Functional labels describe the grammatical roles of constituents within the sentence structure, such as Subject (Subj), Object (Obj), and Complement (Comp). For instance, in the sentence "The dog [Subj] chased the cat [Obj]," the labels indicate the specific grammatical roles played by the noun phrases within the clause. These labels work together to provide a detailed and systematic representation of sentence structure.

The application of phrase structure rules involves defining the syntactic framework of a sentence and generating its structure systematically. Basic phrase structure rules include: $S \rightarrow NP VP$, $NP \rightarrow (Det) (Adj) N (PP)$, $VP \rightarrow V (NP) (PP)$, and $PP \rightarrow P NP$. These rules outline how sentences and phrases are constructed by combining smaller syntactic units. Lexical rules specify the words that can fill each category, such as $N \rightarrow \text{dog, cat, book}$; $V \rightarrow \text{run, eat, sleep}$; and $Adj \rightarrow \text{big, red, happy}$. The process of generating sentences begins with the root symbol (S) and applies the rules recursively until all non-terminal symbols are replaced with terminal words. For example, $S \rightarrow NP VP \rightarrow Det N V NP \rightarrow \text{The dog chased the cat}$. This method ensures a clear and systematic representation of sentence formation and structure.

B.2. Literature Review

This research builds on several previous studies. One such study is by Rodliyah (2006), titled "Syntactic Analysis of Verb Phrase (VP) in The Jakarta Post Headline Using X-Bar Approach." She focused on the constituents of VP in The

Jakarta Post headlines and provides descriptions of VP structures in the newspaper. Her findings reveal four types of VP constructions based on X-bar theory: a) $VP \rightarrow V + NP$ (Complement), where the VP consists of the head V and the Complement NP; b) $VP \rightarrow V + NP$ (Complement) + PP (Adjunct), where the VP consists of the head V, the Complement NP, and the Adjunct PP; c) $VP \rightarrow V + PP$ (Complement) + PP (Adjunct); and d) $VP \rightarrow V + V'$ (Complement), where the VP consists of the head V and the Complement V' . This previous research differs from the current study primarily in terms of the data source used.

Another relevant study was conducted by Hayati (2008). It focused on the constituents and modifiers of adjectival phrases. Her findings indicate that the constituents of adjectival phrases include: 1) degree words, 2) adjectives, 3) prepositional phrases, and 4) adverbs. The patterns of these constituents are: 1) $A'' \rightarrow Deg + A'$, 2) $A'' \rightarrow Deg + A' (A + PP)$, 3) $A'' \rightarrow Deg + A' (A + A)$, 4) $A' \rightarrow A$, 5) $A' \rightarrow A' + PP$, 6) $A' \rightarrow A' + A$, and 7) $A' \rightarrow A' + ADV$. Additionally, the modifiers of adjectival phrases are: 1) degree words, 2) degree words and adjectives, 3) degree words and prepositional phrases, 4) prepositional phrases, 5) adjectives, and 6) adverbs.

The similarities between this research and previous studies lie in the analysis of phrases using X-bar theory. However, this research differs in terms of its data source. Unlike earlier studies, this research focuses on analyzing the verb phrases in the Indonesian National Anthem Three-Stanza translated version from the *Indonesia-investment website*.