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AN INTRODUCTION TO ENGLISH GRAMMAR MORPHOLOGY AND SYNTAX

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CONTENTS

CHAPTER 1

INTRODUCTION TO GRAMMAR

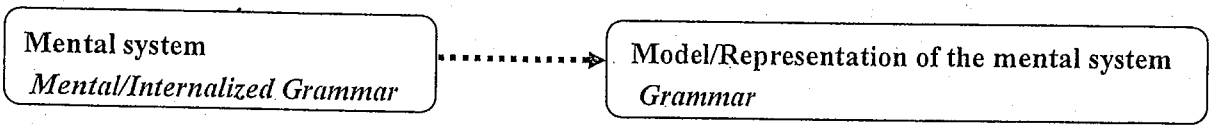
I. Introduction

The term *Grammar* can be used in a number of different senses - grammar may be understood as the system of sounds, of meaningful units; and sets of rules and principles that allow speakers to combine them into larger units in producing and understanding their language. Such a grammar might be called a ***mental grammar***. Mental grammar cannot be directly observed. What we can observe is the output of the mental grammar - the utterances that speakers use and recognize as sentences of their language.

The term grammar can also be used to refer to the set of generalizations and/or descriptions of the true model of the speakers' linguistic capacity, i.e., the speakers' mental grammar.

As we have seen, it is this mental grammar of the speakers that makes up their ability to produce and understand an unlimited number of utterances, including many that are novel and unfamiliar in their daily communication. This ability is often called ***linguistic competence***, which constitutes the central subject matter of linguistics.

Thus, the term grammar can be understood in two ways: first, the mental grammar speakers have in their brain; second, the model or description of this mental (or internalized) grammar. And, grammar is divided into the following components: *phonetics, phonology, morphology, syntax, and semantics*.



II. English Grammar

There are many books describing English grammar. They differ in the range of grammar they cover and in how the grammatical rules are represented. There are also certain differences in the categorization and terminology they use. Nevertheless, most categories and terms are widely shared, deriving from a long tradition of grammatical description.

1. *Types of Grammar*

1.1 Prescriptive Grammar

From ancient times until the present, 'purists' have believed that language change is corruption and that there are certain 'correct' forms that all educated people should use in speaking and writing. Numerous English grammarians of the eighteenth and nineteenth centuries held this view. They wished to prescribe rather than describe the rules of grammar, which gave rise to the writing of prescriptive grammars.

The age of prescriptive grammar begins in the second half of the 18th century. The most influential grammar of the period was R. Lowth's *Short Introduction to English Grammar,* first published in 1762. ... Before the publication of his grammar, practically everyone - upper-class, middle-class, and lower-class speakers of English - said *I don't have none. You was wrong about that*, and *Mathilda is fatter than me*. Lowth, however, decided that 'two negatives make a positive' and therefore one should say *I don't have any*; that even when *you* is singular it should be followed by the plural *were*; and that *I* not *me*, *he* not *him*, *they* not *them*, and so forth should follow *than* in comparative constructions. Many of these 'rules' were based on Latin grammar... Because Lowth was influential and because the rising new class wanted to speak 'properly', many of these new rules were legislated into English grammar, at least for the 'prestige' dialect. (Fromkin et al, 1990)

Prescriptive grammars aimed to lay down the rules on how language should be used and to set up a standard of correct usage. The following, in prescriptive grammar, are judged to be wrong or unacceptable:

* ... to *quickly* approve.
* What did she want to talk *about*?
* If anyone comes in late *they* should go quietly to the rear.
* This program is intended to *impact* the trade imbalance. (Impact could not be used as a verb.)
* Hopefully, they don't have to re-sit for the examination.

1.2 Descriptive Grammar

Unlike Prescriptive Grammar, Descriptive Grammar aims to present the grammar that underlies the actual usage of speakers of the language, i.e. 'it describes the system of grammar of the language. It explains how it is possible for you to speak and understand, and it tells what you know about the sounds, words, phrases, and sentences of your language.' An article precedes its noun. The plural '~s' of a count noun is pronounced /z/ if it stands after a vowel or a voiced consonant.

We have used the word *grammar* in two ways: the first in reference to the grammar speakers have in their brains; the second as the model or description of this internalized grammar. From now on we will not differentiate these two meanings, because the linguist's descriptive grammar is an attempt at a formal statement (or theory) of the speakers' grammar. When we say that there is a rule in the grammar - such as 'Every sentence has a noun phrase subject and a verb phrase predicate - we posit the rule in both the 'mental' grammar and the model of it, the linguist's grammar. When we say that a sentence is grammatical, we mean that it conforms to the rules of both grammars; conversely, an ungrammatical (starred) sentence deviates in some way from these rules.

1.3. The Immediate Constituent Grammar - the IC Grammar

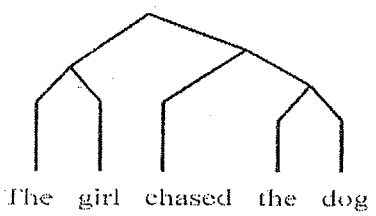
One of the most widely used techniques to display sentence structures is to use the immediate constituent (IC) analysis. This approach works through the different levels of structure within a sentence in a series of steps. *At each level, a construction is divided into its major constituents, and the process continues until no further divisions can be made.* For example, to make an IC analysis of the sentence *The girl chased the dog*, we carry out the following steps:

1. Identify the two major constituents, *the girl* and *chased the dog.*
2. Divide the next biggest constituent into two, viz. *chased the dog* into *chased* and *the dog.*
3. Continue dividing constituents into two until we can go no further, viz. *the girl* and *the dog* into *the* + *girl*, *the* + *dog*, and *chased* into *chase* + *-ed* ending.

The order of segmentation can be summarized using lines or brackets. If the first cut is symbolized by a single vertical line, the second cut by two lines, and so on, the sentence would look like this:

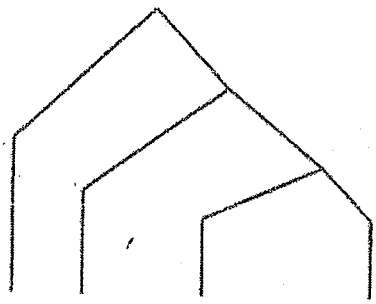
The /// girl / chase /// -ed // the /// dog

However, a much clearer way of representing a constituent structure is through the use of 'tree diagrams';



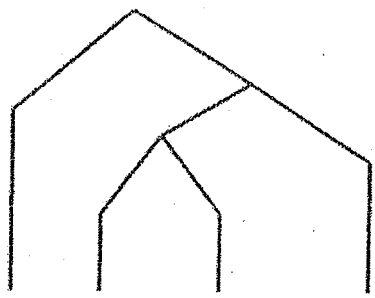
IC grammar is based on the argument that different elements of language do not belong to the same layer; they belong to different layers and create different meanings. You can see this more clearly in the following analyses of the two sentences *He likes pleasing women* and *More beautiful girls are coming*. The sentences can be analyzed in two different ways and consequently have different meanings:

(A)



He likes pleasing women

(B)



He likes pleasing women

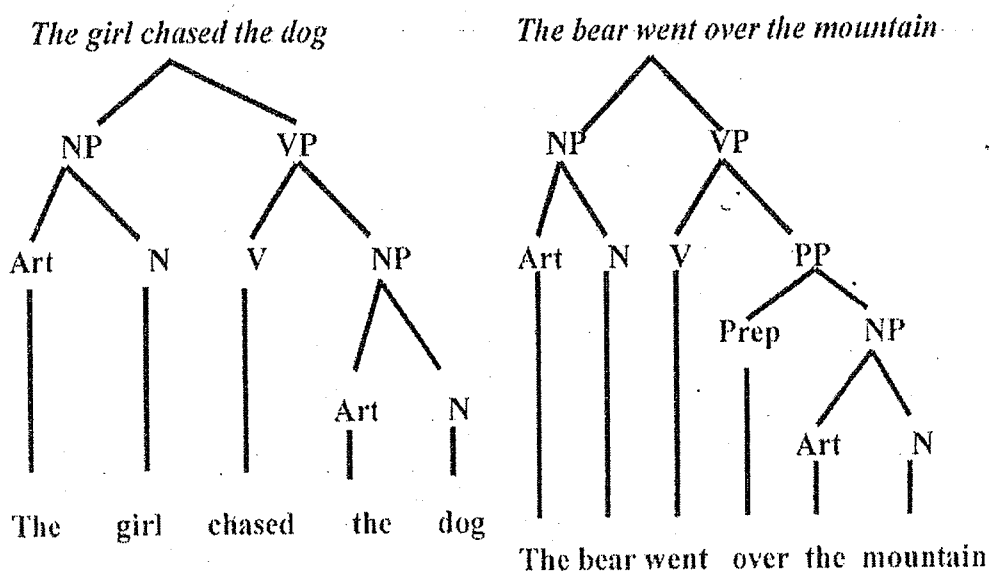
Representations of structure like these are very helpful, as far as they go. But not all sentences are as easy to analyze in IC terms as these ones. It is sometimes not clear where the cuts should be made (e.g., whether to divide *the three old men* into *the + three old men* or *the three old + men*, or *the three + old men*). More important, the process of segmenting individual sentences does not take us very far in understanding the grammar of a language. IC analyses do not inform us about the identity of the sentence elements they disclose, nor do they provide a means of showing how sentences relate to each other grammatically (as with statements and questions, actives and passives). To develop a deeper understanding of grammatical structure, alternative approaches must be used.

1.4 Phrase Structure Grammar - PS Grammar

A good way of putting more information into an analysis would be to name, or *label*, the constituents that emerge each time a sentence is segmented; each *label abbreviates a formal category*. The approach that is most widely practiced has developed its own abbreviations such as *NP for Noun Phrase, VP for Verb Phrase, S for Sentence, AP for Adjective Phrase, PP for Prepositional Phrase*, and so on.

Phrase structure is the division of a sentence into parts, or constituents, and the division of those constituents into subparts. For instance, the sentence *The bear went over the mountain* is made up of two main constituents: *The bear* and *went over the mountain*. The second constituent is, in turn divided into two parts, *went* and *over the mountain*, which is divided even further, into *over* and *the mountain*. All sentences have such hierarchical structure, even a very simple two-word sentence like *Carol giggled*.

Phrasal categories are named according to the most important word of the phrase. Noun Phrases (NPs) are so labeled because they typically contain nouns - the exception: a Noun Phrase can be made up of just a pronoun. Verb Phrases (VPs) always contain verbs. Adjective Phrases (APs) are so-called because an adjective is the only required word; intensifiers are optional. Prepositional phrases (PPs) contain a preposition and an NP. With these labels, *The girl chased the dog* and *The bear went over the mountain* can be displayed as tree diagrams:



Grammars that generate phrase structures in this way have come to be called *Phrase structure grammars* or PSGs. If we follow these rules through, it can be seen that there is already a significant increase in the 'power' of this grammar over the single-sentence analysis used previously. If we choose *the girl* for the first NP, and *the dog* for the second, we generate *the girl chased the dog*; but if the choices are made the other way round, we generate the sentence *the dog chased the girl*. By the simple device of adding a few more words to the rules, a vast number of sentences can be generated.

1.5 Transformational Generative Grammar - TG Grammar

Structural linguistics was followed by a new type of grammar which is known as transformational generative grammar or TG grammar. Its main aim was to find out mechanisms, which account for the generation of the variety of sentences of a language out of a few kernel sentences. At the first stage of its development the representatives of TG gave a list of rules which covered up the derivation of sentences out of kernel sentences. These rules are called T-rules or transformational rules.

The second period of TG began with the introduction of the notions of a ***deep*** and a ***surface structure*** for each sentence. Of these, the *surface structure* is the more complicated, based on one or more underlying abstract simple structures. In certain very simple sentences the difference between the surface structure and the deep structure is minimal. Sentences of this kind, simple, active, declarative, indicative, are designated as kernel sentences. They can be adequately described by phrase or constituent structure methods, as consisting of noun and verb phrases (the so-called P-markers, the NP's & VP's).

1.6 Pedagogical Grammars or Teaching Grammars

The grammar of a language is different from a **teaching grammar**, which is used to learn another language or dialect. In countries where it is advantageous to speak a 'prestige' dialect, people who do not speak it natively may wish to learn it. Teaching grammars state explicitly the rules of the language, list the words and their pronunciations, and aid in learning a new language or dialect. As an adult, it is difficult to learn a second language without being instructed. Teaching grammars assume that the student already knows one language and compares the grammar of the target language with the grammar of the native language.

The rules on how to put words together to form the grammatical sentences also refer to the learners' knowledge of their native language. ... Although they might be prescriptive in the

sense that they attempt to teach the student what is or is not a grammatical construction in the new language, their aim is different from grammars that attempt to change the rules or usage of a language already learned.

1.7 Grammatical Units

The first step usually taken in the study of grammar is to identify units in the stream of speech. The following five-rank hierarchy is a widely used model in the study of grammar:

SENTENCES are analyzed into CLAUSES → are analyzed into PHRASES → are analyzed into WORDS → are analyzed into MORPHEMES.

And/or

MORPHEMES are used to build WORDS → are used to build PHRASES → are used to build CLAUSES → are used to build SENTENCES.

Morphemes are the 'lower' limit of grammatical enquiry, for they have no grammatical structure. Similarly, sentences form the 'upper' limit of grammatical study, because they do not usually form a part of any larger grammatical unit.

1.8 Syntactic relations

In general, the grammatical relations between units in a sentence are called syntactic relations. The followings are the widely-known categories of syntactic relations:

Subject - Predicate relations	***Our class*** || ***bought a new computer***
Subordinate relations	The boy wears a red ***hat*** || ***which is very expensive***
Coordinate relations	The man ***picked up a ring*** and ***went out quickly.***
Embedded relations	I think ***you are completely wrong.***

(Adapted from O'Grady, W., M. Dobrovolsky, and M. Aronoff, 1993, p.p. 1-4)

Summary:

The term *grammar* is actually understood in two ways: the mental grammar (native) speakers have in their brain; and, the model or description of this mental (or internalized) grammar.

There are two types of grammar: prescriptive grammar and descriptive grammar. The branch of descriptive grammar that study any linguistic unit by analizing it into its major constituents is called Immediate Grammar or I.C grammar. This grammar is later developed by Phrase Structure grammar (P.S grammar). P.S grammar labels the phrase marker of each constituent; and, presents the Phrase Structure rules of the (English) language. P.S grammar was followed by Transformational Generative grammar (T.G grammar). T.G grammar aims to find out mechanisms, which account for the generation of the variety of sentences of a language out of a few kernel sentences. TG grammar gave a list of rules which covered up the derivation of sentences out of kernel sentences. These rules are called T-rules or transformational rules.

Questions and exercises

1. How should the term Grammar be understood?
2. What's the difference between *prescriptive grammar* and *descriptive grammar?*
3. Illustrate the difference between *prescriptive grammar* and *descriptive grammar* by giving some (more) prescriptive rules and descriptive rules.
4. Use IC analysis to analize the sentences:
   a. *The boy bought some hot potatoes.*
   b. *The little girl invented the story about the accident*
5. Display (describe) the above sentence, using PS grammar.
6. State the syntactic relations found in the sentence *He is hoping to win the gold medal.*

CHAPTER 2

MORPHOLOGY

I. Introduction

How can we use and understand words in our language that we have never encountered before? This is the central question of a component of a grammar that deals with words and their internal structure.

Can we always tell precisely what a word is? Do *motet*, *motion* and *motive* have anything to do with each other? What ways do we have of making new words in English? Are the same ways of forming new words found in all languages? Is it just coincidence that although you can have a word like *people* which means much the same as '*a lot of persons*', and a word *peoples* which means, more or less, '*a lot of lots of persons*', you cannot have a word *personss* meaning the same thing? Is it just coincidence that the ablative plural of the Latin word *re:x* 'king', *re:gibus*, meaning 'by/ from/ with the kings' is so much longer than the nominative singular re:x? (I use the phonetic length mark rather than the traditional macron to show long vowels in Latin.) All of these questions relate to ***morphology***, the study of words and their structure... By extension, the term '*morphology*' is used not only for the study of the ***shapes of words***, but also for the ***collection of units*** which are used in changing the forms of words. ... Again by extension, *'morphology' is also used for the sequence of rules which are postulated by the linguist to account for the changes in the shapes of words.*

(Addapted from Laurie Bauer 1992: 3-5)

As with any other area of linguistic theory, we must distinguish between *general morphological theory* that applies to all languages and *the morphology of a particular language*. General morphological theory is concerned with delimiting exactly what types of morphological rules can be found in natural languages. *The morphology of a particular language, on the other hand, is a set of rules with a dual function. First, these rules are responsible for* ***word formation,*** *the formation of new words. Second, they represent* ***the speakers' unconscious knowledge*** *of the internal structure of the already existing words of their language.*

Since morphology is concerned with form, it is related to the study of phonology (see Morphophonemics), and since it is concerned with meaning, it is related to the study of semantics. It is also related to the study of syntax in that many of the meanings that find expression in morphology are related to syntactic function: for example, the comparative, past tense and present participles illustrated above. Morphology is also related to lexis in that morphological patterns can be used in the creation of new lexical items, as illustrated by *manager* and *management* above. Morphology is also viewed in terms of the operations that apply to simpler units (like manage) to create more complex ones (like *manager* and *managerial*). This view of morphology is reflected in the explanation on affixation, backformation, compounding, conversion, reduplication, and so on.

(adapted from L. Bauer, 2006. Morphology: Overview)

With the aims of this course material, we take this as a definition of morphology: *morphology is the study of word forms, of internal structure of words and of the rules by which words are formed.*

De<u>institutionalization</u>: practices of releasing patients from hospitals for the mentally ill.

Re<u>institutionalization</u>: practices of returning them to these institutions.

By means of morphological rules we all understand that the above two words are derived from the root *institution* and the affixes *de-/re-, -al, - ize, -ation.*

II. Words

In any science, one of the basic problems is to identify the minimal units, the basic parts out of which more complex units are constructed... Most people, if asked what the minimal meaningful units of language are, would have a ready answer - *words*. Indeed, of all the units of linguistic analysis, the **word** is the most familiar.... But ***what, precisely, is a word?*** A word need not have any special phonetic properties: some words bear stress but others do not; some words are set off by intonational cues but others are not. The two syllables in the following examples have exactly the same pronunciation even though they are separate words in the first case but part of the same word in the second case: *a door - adore*

Most linguists believe that the word is best defined in terms of the way in which it patterns syntactically. One widely accepted definition of this type is as follows:

A word is a linguistic sign, i.e. an arbitrary union of sound (form) and meaning. A word is a minimal free form.

A free form is an element that can occur in isolation and whose position with respect to neighboring elements is not entirely fixed. Thus, we would say that *hunters* is a word since it can occur in isolation (as in answer to the question, *Who are they?*) and can occur in different positions within the sentence, as shown below:

The hunters chased the elephant.

In contrast, the units -er and -s do not count as words here since they cannot occur in isolation and their positioning with respect to adjacent elements is completely fixed. Thus, we cannot say *erhunts or *serhunt, only hunters.

The reference to *minimal* above is necessary to ensure that we do not identify phrases such as *the hunters* as a single word. Although this unit can occur in isolation and can occupy different positions, it is not a minimal free form since it consists of two smaller free forms - *the* and *hunter.*

How many words are there in

1 The cook was a good cook as cooks go, and as cooks go, she went.

2 I've been in hot water so often I feel like a tea-bag.

How many different words does (1) contain?

11 different word forms: *the, cook, was, a, good, cooks, go, and, as, she, went.*

On the other hand, there is another sense in which *cook* and *cooks* are different forms of '*the same word* **[COOK]**' (i.e LEXEME). ***Go*** and ***went*** are also different ***word forms*** that realize a single LEXEME **[GO]**.

A Lee walked home.

B Lee has walked home.

The word *walked* in A & B realizes the same lexeme [WALK]. Yet *walked* in these two sentences is not precisely the same element. In A, walked realizes *WALK + past tense*, while in B, it realizes *WALK + past participle*. We might want to say that **walked** in A & B are ***different words***, even though they realize the same lexeme [WALK].

In the printed text, words are separated out for us. But even if they were not, we would still be able to discover the beginnings and the ends of words fairly simply.

Menbecomeoldbuttheyneverbecomegood.

Menareconservativeafterdinner.

Menlosetheirtempersindefendingtheirtaste.

Afterfortymenhavemarriedtheirhabits.

(extracted from Laurie Bauer, 1992. Introducing Linguistic Morphology. p.p. 7-10)

Summary:

Morphology is the study of words, word forms, rules of word formation and the internal structure of words. The basic units of language is words. Words are abstract units. What we see are graphic / written forms, or hear are sound / phonological forms of words - word forms

Questions and exercises

1. What is *morphology*?
2. What is '*word*'? (How is '*word*' defined/explained?)
3. How many words are there in the following sentences:
   a. The hunters chased the elephants.
   b. She went into the groceries store, and then went back to her car by bank of the lake.
   c. A wise man is a man who believes that a small problem can destroy a great cause.
   d. The man lost the rings on the way to the wedding.
4. How many different words are there in each of the above sentences?

CHAPTER 3

MORPHEME AND TYPES OF MORPHEME

I. Elements smaller than the word

Words, though they may be definable as minimal free forms, are not the minimal meaningful units of language we are looking for, since they can often be broken down further. The word *hunters*, which as we have just seen can stand alone and is thus a free form, nonetheless consists of three meaningful parts: *hunt*, *er*, and *s*.

Now consider the following sentence:

(1) He was born stupid, and greatly increased his birthright.

We could isolate all the word-forms in this sentence in the ways outlined above, but we can also look within the word-forms and isolate recurrent forms within the word-form.

For instance, if we consider the word-form **birthright**, we can divide that into two parts; for the first part, *birth* and for the second part, *right*. In a similar way, we could divide the word-form *greatly, incredible*, and *increased* up into two parts. In other words, the same techniques that allow us to segment sentences into word-forms also allow us to segment word-forms.

The units which we arrive at within the word-form we will call **morphs**. A word-form may contain only one morph (*stupid, and*) or it may contain several (*great-ly, increase-d, birth-right*).

A **morph**, then, is a unit which is a segment of a word-form. It has a **constant** form and realizes or is related to a **constant meaning**.

Some morphs have the potential of being word-forms on their own. In

(2) Everyone lives by selling something.

this applies to the morphs **every, one, live, by, sell, some** and **thing**. Such morphs are called **potentially free morphs**. Notice that the potentiality is not actually exploited for all of these morphs in (2). Indeed, only **by** is actually free in (2), but the others listed are potentially free. Morphs which *cannot be word-forms by themselves* but which need to be attached to other morphs are termed **obligatorily bound morphs**. In (2) only the morphs **-s** and **-ing** are **obligatorily bound.**

II. Allomorphs and morphemes

Sometimes two or more morphs which have the same meaning are in *complementary distribution.* That is, the two can never occur in precisely the same environment or context, and between them they exhaust the possible contexts in which the morpheme can appear. For example, there are two morphs in English which can be glossed as 'indefinite article': *a* and *an*. Some examples of their distribution can be seen below.

(a)	a man	(b)	an oak
	a horse		an elephant
	a kettle		an uncle
	a university		an apple

In this case the choice between the two morphs *a* and *an* is determined or conditioned by the following phonetic sound. We can say that their distribution is ***phonetically conditioned.***

In other cases the distribution of morphs may be determined by other factors. For example, there are various ways of marking plurality in English. The most common way is with an **-s** (variously pronounced), there is **-en** in ox-en, **-ren** in child- ren, and a few other ways as well. The choice of these various ways does not depend on the phonetic environment, but on the WORD involved. It is a peculiarity of the word **OX** (as opposed to BOX, COX, FOX) that it

takes a plural marker **-en**. No other word in English marks its plural in just this way. The plural marker **-en** is determined by the particular WORD involved: it is ***lexically conditioned.*** Morphs can also be ***grammatically conditioned.***

But if English *a* and *an*, or *-s, -en, -ren* ... are clearly separate morphs because of their different shapes, they nevertheless have things in common. They have their meaning in common: 'indefinite article' or 'plural' between them, they divide up a single distribution: always before a singular countable noun, or always on the end of a countable noun. In the clearest cases, they even have a similarity in form. There is a sense, therefore in which *a* and *an* are 'the same thing'. We will say that *these various sets of morphs realize* **the same morpheme**.

Morphemes, then, are abstract units. They are the ***minimal (smallest) meaningful units*** of a language. Morpheme is an arbitrary union of a sound and a meaning and cannot be further analyzed (into meaningful units). A single word may be composed of one or more morphemes: nation (1 morpheme), nation.al (2 morphemes), nation.al.ize (3 morphemes), nation.al.iz.ation (4 morphemes), ...

Morphs which realize a particular morpheme and which are conditioned (whether phonetically or lexically or grammatically) are called the **allomorphs** of that morpheme.

A and *an* are the two phonetically conditioned allomorphs of the (indefinite) morpheme [a].

Allomorphs can be understood as any of the different forms of a morpheme (i.e. alternative representations of a morpheme). Notice that *every allomorph is a morph.*

1. *Internal Structure of English Words.*

1.1 *Root*

In most cases in English any **morph** which can realize a word (lexeme) and which is not further analyzable (except in terms of phonemes) is termed a **ROOT**. Obligatorily bound morphs which do not realize words (lexemes) and which are attached to roots to produce word-forms are called **AFFIXES**. (The basic single morpheme form to which affixes are attached is called a ROOT).

In a word like *dealings*, *deal* is the root, and *-ing* and *-s* are affixes. In *something* in sentence (2) above, there are two roots.

Note that this implies that *some* and *thing* in *something* realize the words SOME and THING, respectively, even though SOMETHING is also a word in its own right.

Most roots are free morphemes, but some are not: *Euro-crat, octo-pus, phil-anthrop-y, phonet-ic, quadra-phon-ic, wis-dom,* and so on.

Affixes can be added directly to a root, as in ***fool-ish*** or they can be added to a root and some already attached affix, as is the case with *-ness* in ***fool.ish- ness***.

1.2 *Base, Prefix , and Suffix*

We can call *anything we attach affixes to, whether it is just a root or something bigger than a root,* **a BASE**.

So in the formation of *dealings* the root is *deal*, but the **base** to which the ***-s*** is added is *dealing*. Note that in this case the final ***-s*** was not added to a ***root.***

Any lexical unit which an affix is attached to is called a base

-al attached to a Noun-base to form Adjective	nation-al
-ize attached to a Adjective-base to form Verb	national-ize
de- attached to a Verb-base to form Verb	de-nationalize

If an affix is attached before a base it is called a ***prefix***, if it is attached after a base it is called a ***suffix***, and if it is attached in the middle of a base it is called an ***infix***. In the word *prepacked*

there is a root *pack*, a prefix *pre-*, and a suffix *-ed*. All of the affixes that have been illustrated have been suffixes, which are more common in English than prefixes are. There are no infixes in English.

1.3 *Stem*

STEM is the actual form to which an *inflectional affix* is attached to. Stem may consist of more than one morpheme. For example, the form ***sing*** is the stem of the word ***sing.s***, but ***singer*** is the stem of the word ***singer.s***.

III. Free and Bound Morphemes

The analysis of morphological structure of words is based on the distinction between ***free morphemes, which can constitute a word by itself***, and ***bound morpheme, which must be attached to another element***. The morpheme *learn*, for example is free since it can be used as a word on its own; the morpheme *-er*, as in *learner*, on the other hand is bound since it cannot stand on its own but must be attached to other elements such as *teach, sing, work,* etc. Bound morphemes are never words but always parts of words.

1. *Derivation and Inflection.*

1.1 Derivational morphemes

Derivational morphemes are (bound) morphemes that add new meaning to an existing word. They are called derivational morphemes because when they are conjoined to other morphemes (or words), a new word is derived, or formed.

+ the derived words may be in a <u>different grammatical class</u>: nation.al .
+ the derived words may be in the <u>same grammatical class</u>:

prefix	re-write
	super-man
suffix	Vietnam-ese
	mouth-ful

1.2 Inflectional morphemes

Inflectional morphemes are bound morphemes that are purely ***grammatical markers***, representing such concepts as *tense, number, gender, person, case, ...*

Inflectional morphemes do not change the syntactic/grammatical category of the word or morphemes to which they are attached. On the other hand, they modify a word's form in order to mark the grammatical subclass to which it belongs, i.e. complete the grammatical category of the word form

SING {*sings - sang - sung - singing*}: the present tense, past tense, the past participle and present participle of the base SING are inflectional morphemes

(from Laurie Bauer, 1992)

Summary:

Words are not smallest meaningful units of language. The smallest meaningful units of language are *morphemes*. Morphemes are abstract. They are realized or represented by their physical forms, which are called *morphs*. Most morphemes are realized by their only morphs. Certain morphemes are realized by different morphs. These are called *allomorphs* of the morphemes. For example, the 'indefinite article' morpheme is realized by its allomorphs ***a*** and ***an***. Morphemes are classified into *free morphemes* and *bound morphemes*. Bound morphemes are classified into *derivational morphemes* or *derivations*, and *inflectional morphemes* or *inflections*. The units that form the internal structure of words are *root* and *affix(es)*. The latter are then classified into *prefix(es)* and *suffix(es)*. Any form that an affix is attached to is called a *base*. Any form that an inflection is attached to is called a *stem*.

Questions and exercises

1. What is morph? And, what is morpheme?
2. What is free morph, potentially free morph and bound morph?
3. What is 'allomorphs' of a morpheme?
4. How do people normally analyze the internal structure of a word? What elements constitute the structure of a word?
5. What is the difference between derivation and inflection?
6. How many morphs and morphemes are there in the followings?
   a. antidisestablishmentarianism
   b. better and better
   c. Those men have passed away.
   d. The cats ate the mice.
7. Identify the root, base and affixes (prefix and suffix) of the following words:
   a. Girlfriend
   b. Boyfriends
   c. unbelievable
   d. outputs

CHAPTER 4

WORD CLASSES

I. Introduction

A natural first step in a scientific approach to words is to seek to establish the different types of words which appear in languages. That such information is readily available to native speakers and, furthermore, is predictively useful for them is easy to demonstrate. Suppose, for instance, that you hear the sentence in (1):

(1) A plingle has arrived

Of course, you don't know what *plingle* means, but you can immediately infer that *plingle* is the sort of expression which occurs in the constructions *the plingle, two plingles, every plingle which has ever existed,* etc. In short, (1) enables you to assign *plingle* to a particular class of words, and once you know what class of words it belongs to, you know a great deal about its potential for occurrence within the language. It is reasonable, then, to suppose that the word class to which a word belongs is specified in that word's lexical entry. The immediate task facing us in this section is that of developing criteria for assigning words to classes.

1. *Lexical categories*

The categories which we will look at in this section are four major lexical categories: ***nouns***, ***verbs***, ***adjectives*** and ***adverbs***. We will briefly look at ***prepositions*** although these do not have any characteristic grammatical endings.

2. *Functional categories*

Nouns, ***verbs***, ***adjectives***, ***adverbs*** and ***prepositions*** are the major word classes of English, and they are the sorts of words we find in dictionaries with meanings attached to them (...). However, not all words are straightforwardly meaningful in this way, and this observation paves the way for extending the word classes which must be recognized in grammars for languages. Consider the italicized words in the following example:

(2) Bill thinks *that* Tom *and* Dick *have been* visiting Harriet *to* ask for help with one *of the* assignments *which have to be* finished for *the* next morphology class

Words such as the italicized above, which do not denote objects, ideas, etc., are known as ***function words*** and they belong to classes known as ***functional categories.*** They are distinguished from *nouns*, *verbs*, *adjectives*, *adverbs* and *prepositions*, which are often called ***content words.*** The distinction has proved important not only in the description of individual languages but also in the study of the acquisition of language and the study of language disorders.

There is an important relationship between function words and content words, in that very often the syntactic criteria for assigning words to lexical categories rely on specific types of function words. For example, above it was pointed out that nouns can be preceded by a definite or indefinite article *(the or a(n)).* The function of the article is (very roughly) to make what the noun refers to either more or less specific...We can be even more specific with ***demonstratives***, *this* or *that.* The articles *the/a* and the demonstratives belong to a class of function words called ***determiners*** (**Det**). These are often found before nouns, though the determiner may be separated from the noun by one or more adjectives, e.g. *a bright, shiny, new car.*

Verbs can also be preceded by a type of function word, the ***auxiliary verbs*** (**Aux**) such as *can, will, must, have, be:*

(3) a. You can go to the ball

b. Linguistics is developing rapidly

c. Sam has lost the plot again

Another important type of function word is the ***pronoun*** **(Pro)**. This is a group of words the members of which (roughly speaking) stand for a noun expression (like *John, the president, a book of mine,* etc.). The commonest pronouns are the ***personal pronouns,*** which can be (partially) described in terms of number (singular/plural) and person (first person when the speaker is included, second person for the addressee when the speaker is excluded and third person in other cases):

Personal pronouns in English

number / person	singular	Plural
first	I / me	we / us
second	thou / thee / you	you
third	he / him, she / her, it	they / them

(The second person singular pronoun *thou/thee* is obsolete in standard dialects of Modern English, though it survives in other varieties.)

Another type of function word is illustrated in (2) by *and.* Such words are called ***conjunctions*** **(Conj)**

The conjunctions serve to join words or phrases together to form larger phrases of the same type, or join whole sentences together to form new sentences .

The subordinating conjunction *that* has already been mentioned in connection with (2). In modern linguistics, words like this are known as ***complementizers*** **(C)** because one of their most important uses is to introduce complement clauses. Additional examples of this type are shown in (4):

(4) a. Tom wonders *if* it will rain

b. Tom arranged *for* Dick to leave early

Up to this point, then, we have seen that it is necessary to recognize at least five lexical categories **(N, V, A, ADV, P)** in the grammar of English along with a number of functional categories **(Det, Aux, Pro, Conj, C)**.

II. Characteristics of Word Classes

1. *Nouns*

Nouns may be classified in a number of ways. There is a fundamental contrast between nouns that refer uniquely to particular entities or individuals and those that do not; the best example of the first kind of noun is a proper name, e.g. *Sam, Elizabeth, Paris* or *London,* and nouns of this type are referred to as **proper nouns.** Nouns which do not refer to unique individuals or entities are called **common nouns,** e.g. *dog, table, fish, car, pencil, water.* One of the important differences between proper and common nouns in a language like English is that common nouns normally take an article, while proper nouns do not, e.g. *The boy left* versus **The Sam left* (cf.**Boy left* versus *Sam left).* Common nouns may be divided into **mass nouns** (or non-count nouns) and **count nouns.** Count nouns, as the name implies, denote countable entities, e.g. *seven chairs, six pencils, three dogs, many cars.* Mass nouns, on the other hand, are not readily countable in their primary senses, e.g. **two waters, *four butters, *six snows.* In order to make them countable, it is necessary to add what is sometimes called a 'measure word', which delimits a specific amount of the substance, e.g. *two glasses/bottles/drops of water, four pats / sticks of butter, six shovelfuls of snow.* Measure words can be used with count nouns only when they are plural, e.g. **six boxes of pencil* versus *six boxes of pencils, *two cups of peanut* versus *three jars of peanuts.*

The traditional definition of noun is a 'word that names a person, place or thing.' However, this simple semantic definition has not been agreed upon by other linguists. Nor has the functional one for nouns been given. For suitable analyses, we consider the forms of nouns.

1.1 Formal characteristics

This classification of nouns has been approached through a series of tests. The tests will help learners to determine the word class by using the native speaker intuitions that they already possess. Thus, ...

A word may be a noun if it

. . . ends in two noun inflections: plural (~s or ~es) and genitive ('s or s')

. . . ends in a nominal derivational suffix

-age -ance/ -ence -ard -cy -dom -er/-or -ess -hood -ism -ist -ity -ment -ness -th -tion -ude

. . . occurs alone after a word that typically precedes nouns

Articles	a, an, the
Genitives	my, our, your, his, her, its, genitive noun phrases (e.g., the big building's windows ...)
Demonstratives	this, that, these, those
Quantifiers	some, any, all, no, every, numerals, ordinals (e.g., first, second, ...)
Most adjectives	good, ridiculous, ...

1.2 Functional characteristics:

Single nouns have one dominant function - that of **head** of a Noun Phrase

Typical Noun Phrase Structures

Modifier(s)	**Head**	**Modifiers/Complements**
the swift	horses	
several swift	horses	
large swift	horses	
the swift	horses	running in the field
the swift	horses	in the pasture
large swift	horses	running in the field
the	fact	that horses eat grass

One important subdivision of nouns is that between **mass** and **count nouns**. (...) Nouns also fall into **concrete** and **abstract** subclasses. Nouns can also be subdivided into **collective** nouns, denoting entities which are collections of individuals (army, jury, the public, ...) and **common** nouns. Some grammarians distinguish **proper** nouns, referring to particular entities, from **common** nouns, which refer to classes.

2. *Verbs*

Verbs can likewise be categorized along a number of dimensions. One very important dimension is whether a verb takes just a subject (an **intransitive** verb), or a subject and a direct object (a **transitive** verb), or a subject, direct object and **indirect object** (a **ditransitive** verb). This will be referred to as the 'valence' of the verb. Another dimension concerns the kind of situation it represents. Some verbs represent ***static*** situations which do not involve anyone actually doing anything, e.g. *know* as in *Chris knows the answer,* or *see* as in *Pat sees Dana over by the bookcase.* Some symbolize ***actions***, e.g. *run* as in *Kim ran around the track,* or *sing* as in *Leslie sang a beautiful aria.* Others refer to a ***change of state***, *e.g. freeze* as in *The water froze* (the change in the state of the water is from liquid to solid), or *dry* as in

The clothes dried quickly (the change in the state of the clothes is from wet to dry). Some represent ***complex situations*** involving an action plus a change of state, e.g. *break* as in *Larry broke the window with a rock* (Larry does something with a rock [action] which causes the window to break [change of state]). This classification of verbs is quite complex and is more appropriately in the domain of semantics rather than syntax.

Traditional grammars typically define verbs semantically, i.e., as 'words that designate actions (kiss, run), processes (grow, change), experiences (know), or states of being (be, have).' As with most meaning-based criteria, the semantic definition above is somewhat misleading. For instance, nouns derived from verbs through zero derivation (e.g., strike, kick, throw, ...) will maintain their verbal sense of action. Likewise, verbs derived from nouns - e.g., man - may appear to maintain whatever naming sense that they have. A far simpler approach is employ formal consideration to define what a verb is.

2.1 Formal characteristics

A word may be a verb if it ...

. . . can take the four verb inflections – V-s, V-ing, V-ed, V-en

. . . begins or ends in a verbal derivational affix

2.1.1 Suffixes

-ify (magnify), -ize (cananize), -en (lighten)

2.1.2 Prefixes

dis- (disappoint), un- (untie), mis- (misrepresent), mal- (malfunction), out- (outdistance), over- (overestimate), under- (underestimate), fore- (foresee), re- (reconsider), en- (enlighten), be- (belabor)

... can be immediately preceded by words that typically precede verbs.

Verbs have the potential to occur immediately following

1. Auxiliaries (*be* and *have*)
2. Modals (*do, did, will, would, can, could, may, might, shall, should, must*)
3. *to* (infinitival)
4. *not*

2.2 Functional characteristics

head of the verb phrase

Subclasses of Verbs

Verbs are subdivided into *transitive*, *intransitive* and *linking* verbs. Quirk and Greenbaum (1973) subdivided verbs into **intensive verbs** (= *linking/copula verbs*), which have subject complements, and **extensive verbs**. **Extensive verbs** are then subdivided into **intransitive verbs** if they do not permit any of the objects and complements, and **transitive verbs.** Transitive verb that takes a direct object are called ***monotransitive***. If it takes a direct and an indirect object, it is called ***ditransitive***. If it takes object complement, it is referred to as ***complex transitive***.

3. *Adjectives*

Some examples of adjectives in English include *red, happy, tall, sick, interesting, beautiful,* and many others. Adjectives typically express ***properties of entities***, e.g. *a* red *apple, a* tall *woman, a* beautiful *sunset.*

While traditional grammars usually define nouns and verbs semantically, they often shift to functional criteria to characterize adjectives. Their definition of an adjective is 'a word that modifies a noun.'

However, other words can modify nouns that are clearly not adjectives. For instance, *stone* in *stone wall* is by formal criteria a noun and not an adjective (e.g., stones and stone's). Likewise, *the* in *the wall* shows none of the formal characteristics of adjectives, although it clearly modifies its head noun. In other words, the fact that a word modifies a noun doesn't provide sufficient reason to call it an adjective.

To discard misleading definition of adjectives, we made an attempt to replace it with a more reliable one based on formal criteria.

3.1 Formal characteristics

A word may be an adjective if it …

… allows comparison through the addition of the inflectional suffixes **-er** and **-est**, or being preceded by **more** and **most**.

old	older	oldest
beautiful	more beautiful	most beautiful

… ends in adjectival derivational suffix

-ish, -al, -ar, -ful, -some, -y, -ic, -able/ -ible, -ing, -ed

3.2 Functional characteristics

heads of adjective phrases

very *careful*, quite *reasonable*, thoroughly *insane*, *unusual* for its beauty, …

3.2.1 Attributive Adjective

Adjectives that directly modify nouns by preceding or following them are often called attributive adjectives

She is a *sensitive* person.

She is a person *unusual* for her knowledge of astrology.

3.2.2 Predicative Adjective

Predicative adjectives occur after verbs in the *be-become-seem* type.

The boy is *anxious*.

She became *exhausted*.

3.2.3. Object Complement

Another function of adjective phrase is that of *object complement*.

We consider him *foolish*. He makes me *angry*.

cut (X) short	push (X) open
drain (X) dry	put (X) straight
keep (X) loose	set (X) right
leave (X) clean	shake (X) free
make (X) plain	wash (X) clean

4. *Adverbs*

English adverbs typically, but not always, end in *-ly*, e.g. *quickly, happily, beautifully, rapidly* and *carefully. Fast and friendly* are exceptions; *fast* is an adverb without *-ly* (it can also be an adjective), *and friendly,* despite the admonitions of road signs in Texas to 'drive friendly', is an adjective, e.g. *a **friendly** waiter.* ***Adverbs modify verbs, adjectives and even other adverbs***, and they can be classified in terms of the nature of this modification: manner adverbs, for example, indicate the manner in which something is done, e.g. *The detective examined the crime scene carefully,* or *The ballerina danced beautifully,* while temporal

adverbs, as the name implies, express when something happened, e.g. *Kim talked to Chris yesterday,* or *Dana will see Pat tomorrow. Yesterday* and *tomorrow* do not end in *-ly* and have the same form when functioning as an adverb that they have when functioning as a noun, e.g. *Yesterday was a nice day, Tomorrow will be very special.* The most common adverbial modifiers of adjectives and adverbs are words like *very, extremely, rather,* e.g. *a very tall tree, the extremely clever student, rather quickly.* This class of adverbs is referred to as **degree modifiers.**

The traditional definition of an adverb is "a word used to modify a verb, an adjective, or another adverb." This definition is clearly functional and actually represents the typical functions of adverbs fairly well. However, our approach here will again begin with a formal characterization of adverbs. We will then proceed to a functional division of adverbs into sentence modifiers and adjuncts. Finally, we will indicate some of the traditional semantic categories of adverbs.

4.1 Formal characteristics

A word may be an adverb if it ...

. . . undergoes comparison by the addition of suffixes **-er** and **-est**, or being preceded by **more** and **most.**

. . . ends in adverbial derivational suffix: -ly, -wise, -ward

(quickly, frequently, awkwardly); (lengthwise, otherwise); (homeward, westward)

. . . tends to be relatively movable in a sentence

Frequently, Harriet was a visitor.

Harriet was frequently a visitor.

Harriet was a visitor frequently.

4.2 Functional characteristics

heads of adverb phrases

Adverbs and adverb phrases seem almost exclusively to modify. But what do they modify? Our position here will be to distinguish one subclass of adverbs that clearly modify the sentence and another that modify, in some general sense, the verb group or verb phrase. The first function is the *sentence modifier*, the second is the *adjunct*. Sentence modifiers have two major functions. They can indicate a speaker's evaluation of the truth of the sentence, or of what the sentence refers to, which is also called *disjunct*, and connect one clause or part of a clause with another, which is called *conjunct.*

Sentence modifier

Disjunct

Apparently / obviously / clearly, Joan of D'Art is a heroine.

Frankly / honestly, my dear, I don't love you.

Luckily / fortunately, she regained control of her mind.

Conjunct

The paramedics arrived and *eventually* Oscar was stabilized.

Summer arrived; *however*, the weather remained poor.

He gambled away his inheritance, and *consequently* had to work for a living.

Adjunct

They are waiting outside.

She talked to me about it secretly.

5. *Prepositions*

Prepositions are adpositions that occur before their object, while postpositions occur after their object. English (and Spanish) have only prepositions, e.g. English *in, on, under, to,* (Spanish *en, a, con,*) whereas Japanese and Korean have only postpositions. German has both: *in dem Haus* 'in the house' (preposition *in)* versus *dem Haus gegenilber* 'over across from the house' (postposition *gegenilber).*

5.1. Formal characteristics

Prepositions are important to English because they form phrases that play a wide range of grammatical roles. Prepositions also express many of the major semantic relations that unite members of a sentence in a meaningful whole. It's thus important for teachers and students to become familiar with the approximately fifty members of this class. The common prepositions appear in the table *Single-Word Prepositions* below

Grammatically, prepositions are formally recognizable by the fact that they're usually followed by a noun phrase

of my toe *to* my closest friends *beneath* contempt

Single-Word Prepositions

about	above	across	after	against
along	amid(st)	among	around	astride
at	before	behind	below	beneath
beside(s)	between	beyond	but (= except)	by
concerning	down	during	except	from
in	inside	into	like	of
on	onto	out	outside	over
since	through	throughout	till	to
toward	under	underneath	until	unto
up	upon	with	within	without

Multi-word Prepositions

according to	along with	apart from
as for	as to	because of
except for	inside of	instead of
out of	round about	

5.2 Functional characteristics

heads of prepositional phrases

6. *Pronouns*

Pronoun is a word used in place of one or more nouns. Pronouns bear the grammatical functions of *Person*, *Case*, *Gender* and *Number*.

Pronouns are closely related to nouns, as they both function as NPs. Pronouns are traditionally characterized as 'substitutes' for nouns or as 'standing for' nouns, e.g. *John went to the store, and he bought some milk,* in which *he* substitutes or stands for *John* in the second clause. This, however, is true only of **third-person** pronouns like *he, she, it,* or *they;* it is not true of **first-person** pronouns like *I* or **second-person** pronouns like *you.* First- and second-person pronouns refer to or index the speaker and addressee in a speech event and do not replace or stand for a noun.

6.1 Personal Pronouns

Person	**Case**		**Singular**		**Plural**
First	Nominative		I		we
	Accusative		me		us
	Genitive		my		our
			mine		ours
Second	Nominative		you		you
	Accusative		you		you
	Genitive		your		your
			yours		yours
			Gender		
		Masculine	**Feminine**	**Neutral**	
Third	Nominative	he	she	It	they
	Accusative	him	her	It	them
	Genitive	his	her	Its	their
		his	hers	Its	theirs

6.2 Demonstrative Pronouns

This These That Those

6.3 Reflexive (and intensive) Pronouns

Person	**Singular**	**Plural**
First	myself	ourselves
Second	yourself	yourselves
Third	himself	
	herself	themselves
	itself	

6.4 Indefinite Pronouns

(1) = head or modifier; (2) = head only

all (1)	another (1)	any (1)	anybody (2)	anyone (2)
both (1)	each (1)	either (1)	everybody (2)	everyone (2)
few (1)	many (1)	most (1)	neither (1)	nobody (2)
none (2)	no one (2)	others (2)	one (2)	other (1)
somebody (2)	several (1)	some (1)	someone (2)	such (1)

7. *Wh-words*

who	whom	which	what	who
when	where	why	whether	how

Wh-words occur in three distinct functions: 1. Introducing information questions; 2. Introducing relatives; and 3. Introducing noun clauses.

8. *Minor categories*

There are a number of minor categories. The category of **Determiners** includes ***articles*** like *a* and *the,* and ***demonstratives*** like *this* and *that:*

Quantifiers, as the label implies, express quantity-related concepts. English quantifiers include *every, each, all, many, and few,* as well as the numerals *one, two, three,* etc., e.g. *every boy, many books, the seven sisters.*

Conjunctions (or Conjuncts), like *and, but* and *or,* serve to link the elements in a conjoined expression. All major lexical categories can be linked by conjunctions to form conjoined expressions.

a) Coordinating Conjunctions

- ***Single word Coordinating conjunctions***

and but or for so nor yet

- ***Multiword Coordinating conjunctions***

both ... and, not only ... but (also)

either ... or, neither ... nor, whether ... or

b) Subordinating Conjunctions (or Adverbial Conjunctions)

Time:	after, as, as long as, as soon as, before, just as, now that, since, until, till, when, whenever, while
Place:	where, wherever
Manner:	as, as if, as though
Reason or cause:	as, because, inasmuch as, since
Result:	so ... that, so that, such . . . that
Comparison:	as, as ... as, just as, so ... as, than
Purpose:	in order that, lest, so. so that, that
Condition:	as long as. if, on (the) condition that, provided, provided that, unless
Concession:	although, even if, even though, though, whereas, while

Complementizers (also termed Nominal conjunctions) mark the dependent clause is a complex sentence, e.g. English *that* as in *Sally knows that Bill ate the last piece of pizza.* Nominal clauses function as noun phrases typically function, i.e., as subjects, objects, and complements. When they do so, they will be introduced by a certain set of conjunctions. That set of conjunctions includes most of the *wh-words* along with the word *that.* To illustrate, note the following sentences:

a) I don't know [*who(m)* I should call].

b) [*What* you don't know] might hurt you.

c) [*Why* Zangooli fled] isn't clear.

d) I suspect [*that* he was wanted by the police].

To assure yourself that the clauses truly have a nominal function, replace them with the pronouns *it* or *that.*

c) Relative Conjunctions (traditionally called **relative pronouns**)

Relative clauses function as modifiers of the nouns that they follow. Typically, they're introduced by members of the wh-word class and by the word *that.*

a) Anyone [who knows the answer] will receive a prize.

b) The cat [*that* caught the mouse] was jubilant.

c) The reason [*why* she left] wasn't clear.

(adapted from Delahunty, G.P., 1994: 110-170; Radford, A. et al, 2001: 147-156, and Garvey, J.J., 1994: 146-169)

Summary:

The lexicon or vocabulary is classified into *lexical categories* and *functional categories*. The lexical categories consist of the four major word classes: *nouns, verbs, adjectives, adverbs*, and one minor word class: *prepositions*. The functional categories consist of *determiners*, *auxiliaries*, *pronouns*, *conjunctions*, and *complementizers*. Both the formal and functional characteristics of each word class help language users use these word classes efficiently in their daily communications.

Questions and exercises

1. How are English nouns classified?
   Use any of your diagram to describe the classification of English noun class.
2. How are English verbs classified?
   Use any of your diagram to describe the classification of English verb class.
3. What are the two functions of the English adjectives? Give examples to illustrate.

CHAPTER 5

WORD FORMATION

I. Words

All languages have words, and words are probably the most accessible linguistic units to layman. A word, as defined, is an arbitrary union of sound form and meaning. Generally speaking, a word is seen as a three-part symbol. It has a form or a number of forms (sound/graphic form). It certainly conveys a concept (i.e. meaning), and, it is normally specified by a syntactic/grammatical category (syntactic class) - whether it is a noun or a verb or an adjective, etc.

1. *Simple, compound and complex words*

There are two basic types of words in human language - simple and complex. Simple words are those made up of only one stem and cannot be broken down into smaller meaningful units, e.g. house, school, ...

Complex words are those made up of stem(s) and one or more inflectional and/or derivational affixes. Complex words can be broken down/analyzed into constituent parts Example: work.er.s (made up of the form *work*, the noun suffix *-er* and the plural marker *-s*), house.s (made up of the form *house* and the plural marker *-s*), ... There is a group of complex words which is traditionally called compound words. These words are composed from the combination of two or more free morphemes: greenhouse, hotdog, ...

2. *Closed and open word categories*

Morphology deals with the internal structure of complex words. The words of any language can be divided into two broad types of categories, **closed** and **open,** of which the latter are most relevant to morphology.

The closed categories are the **function words: pronouns** like *you* and *she;* **conjunctions** like *and, if,* and *because;* **determiners** like *a* and *the;* and a few others. Newly coined or borrowed words cannot be added to these categories, which is why we say that they are closed.

The categories of words that are open are the **major lexical categories: noun** (N), **verb** (V), **adjective** (A), and **adverb** (Adv). It is to these categories that new words may be added. Because the major problem of morphology is how people make up and understand words that they have never encountered before, morphology is concerned largely with major lexical categories. Each word that is a member of a major lexical category is called a **lexical item.** A lexical item can best be thought of as an entry in a dictionary or **lexicon.** The entry for each lexical item will include, in addition to its pronunciation (phonology), information about its meaning (semantics), to what lexical category it belongs, and in what syntactic environments it may occur (subcategorization).

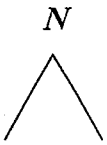
II. Word formation

A characteristic of all human languages is the potential to create new words. The categories of noun, verb, adjective, and adverb are open in the sense that new members are constantly being added. The two most common types of forming new words in English are **derivation** and **compounding,** both of which create new words from already existing morphemes.

1. *Derivation*

Derivation is the process by which a new word is built from a **base,** usually through the addition of an affix (prefix and suffix). The noun *helper,* for example, is related to the verb *help* via derivation; the compound word *mailbox,* in contrast, is created from the words *mail* and *box.*

Derivation creates a new word by changing the category and/or the meaning of the base to which it applies. The derivational affix *-er,* for instance, combines with a verb to create a noun with the meaning 'one who does **X',** as shown below:



Verb		**Derived noun**
help (v)	→	help(v) er(n)
walk (v)	→	walk(v) er(n)
teach (v)	→	teach(v) er(n)
drive (v)	→	drive(v) er(n)
jump (v)	→	jump(v) er(n)

1.1 Derivational English Affixes

English makes very widespread use of derivation. The below table lists some examples of English derivational affixes, along with information about the type of base with which they combine and the type of category that results. The first entry states that the affix *-able* applies to a verb base and converts it into an adjective with the meaning 'able to be X'ed'. Thus, if we add the affix *-able* to the verb *fix,* we get an adjective with the meaning 'able to be fixed'.

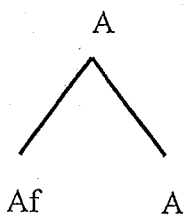
Some English derivational affixes

Affix	Change	Semantic effect	Examples
Suffixes			
-able	V→A	able to be X'ed	fixable
-ation	V→N	the result of X'ing	realization
-er	V→N	one who X's	worker
-ing	V→N	the act of X'ing	the shooting
	V→ A	in the process of X'ing	the sleeping giant
-ion	V→N	the result or act of X'ing	protection
-ive	V→A	having the property of doing X	assertive
-ment	V→N	the act or result of X'ing	adjournment
-al	N→A	pertaining to X	national
-ial	N→ A	pertaining to X	presidential
-ian	N→A	pertaining to X	Canadian
-ic	N→A	having the property of X	organic
-ize	N→V	put in X	hospitalize
-less	N→A	without X	penniless
-ous	N→A	the property of having or being X	poisonous
-ate	A→V	make X	activate

-ity	A→N	the result of being X	stupidity, priority
-ize	A→V	make X	modernize
-ly	A→Adv	in an X manner	quietly
-ness	A→N	the state of being X	happiness, sadness
Prefixes			
ex-	N→N	former X	ex-president
in-	A→A	not X	incompetent
un-	A→A	not X	unhappy
	V→V	reverse X	untie
re-	V→V	X again	rethink

1.2 Derivational Rules

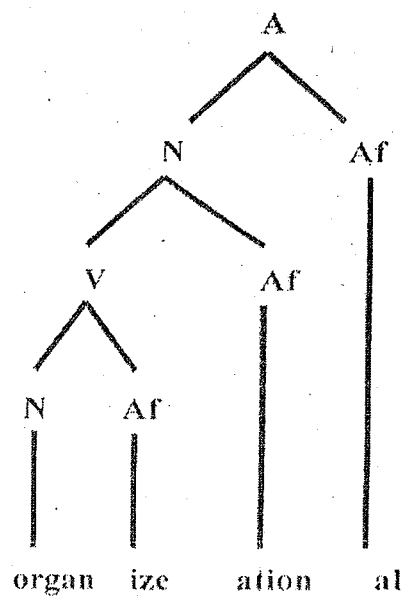
Each line in the above table can be thought of as a **word formation rule** that predicts how words may be formed in English. Thus, if there is a rule whereby the prefix *un-* may be added to an adjective X, resulting in another adjective, *un*X, with the meaning 'not X', then we predict that an adjective like *harmonious* may be combined with this prefix to form the adjective *unharmonious,* which will mean 'not harmonious'. The rule also provides a structure to the word as follows:



These rules have another function: they may be used to analyze words as well as to form them. Suppose, for example, that we come across the word *unharmonious* in a book on architecture. Even though we may never have encountered this word before, we will probably not notice its novelty, but simply use our unconscious knowledge of English word formation to process its meaning.

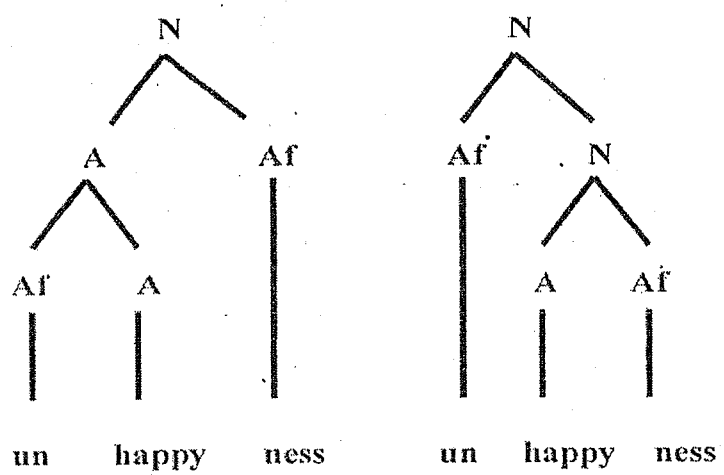
1.3 Multiple Derivations

Derivation can create multiple levels of word structure. Although complex, *organizational* has a structure consistent with the word formation rules given in the table above. Starting with the outermost affix, we see that *-al* forms adjectives from nouns, *-ation* forms nouns from verbs, and *-ize* forms verbs from nouns.



In some cases, the internal structure of a complex word is not obvious. The word *unhappiness,* for instance, could apparently be analyzed in either of the ways indicated in Figure a. By considering the properties of the affixes *un-* and *-ness,* however, it is possible to

Fig. a) Fig. b)



find an argument that favors Figure a over Figure b. The key observation here is that the prefix *un-* combines quite freely with adjectives, but not with nouns as having been shown. (The advertiser's *uncola* is an exception to this rule and therefore attracts the attention of the reader or listener.) This suggests that *un-* must combine with the adjective happy before it is converted into a noun by the suffix -ness - exactly what the structure in Figure a depicts. The derivation of this word therefore proceeds in two steps. First, the prefix un- is attached to the adjective happy, resulting in another adjective. The second step is to add the suffix -ness to this adjective. We see, then, that complex words have structures consisting of hierarchically organized constituents. The same is true of sentences, as we will see later on.

(adapted from William O'Grady et al., 1993: 121-123)

1.4 Affixation

Affixation is the process of coining new words from the existing ones by adding affixes, an obligatorily bound morph, to a base. Affixation is classified into prefixation and suffixation.

1.4.1 Prefixation

The process of coining new words from the existing ones by adding a prefix to a base, with or without a change of word class, e.g: appear (v) → re-appear (v), defense (v) → self-defense (v), slave (n) → enslave (v), ...

1.4.2 Suffixation:

the process of coining new words from the existing ones by adding a suffix to a base, with or without a change of word class, e.g: develop (v) → development (n), free (adj) → freedom (n), hand (n) → handful (n), ...

2. *Compounding*

Compounding is the process of forming new words by adding one base to another. In affixation, we take a single word and change it somehow, usually by adding an affix, to form a new word. In compounding we form a new word by combining two already existing words in a **compound.** For example: *blackbird, doghouse, seaworthy, blue-green...*

Compounding is highly productive in English and in related languages such as German. It is also widespread throughout the languages of the world. In English, compounds can be found in all the major lexical categories - nouns *(doorstop),* adjectives *(winedark),* and verbs

(stagemanage) - but nouns are by far the most common type of compounds. Verb compounds are quite infrequent. Among noun compounds, most are of the form noun + noun (N N), e.g. steamboat, schoolboy, ..., but the form adjective + noun (A N) compounds are also found quite frequently, e.g. bluebird, strongbox, ... The verb + noun (V N) compounds are rare: cry-baby, playboy, ... Compound adjectives are of the type adjective + adjective (A A) or noun + adjective (N A) and some others. For example: blood-thirsty (N A), red-hot (A A), ...

Although there are very few true compound verbs in English, this does not seem to be due to any general principles.... In all the examples given thus far, the lexical category of the last member of the compound is the same as that of the entire compound. Furthermore, the first member is always a modifier of the second: *steamboat* is a type of boat; *red-hot* is a degree of hotness. In other words, the second member acts as the **head** of the compound, from which most of the syntactic properties of the compound are derived, while the first member is its **dependent.** ... The structural peculiarity of compounds, which is true of all languages of the world, is that *a compound never has more than two constituents*. This is not to say that a compound may never contain more than two words. Three-word *(dog food box),* four-word *(stone age cave dweller),* and longer compounds *(trade union delegate assembly leader)* are easy to find. But in each case, the entire compound always consists of two components, each of which may itself be a compound as in [dog food] box, [stone age] [cave dweller], [{trade union} {delegate assembly}] leader.

Compounding and derivation may also feed each other. The member of a compound are often themselves derivational complex, and sometimes, though not often, a compound may serve as a base of a derivational affix. For example: loading dock, block headism, ...

English orthography is not consistent in representing compounds since they are sometimes written as single words (greenhouse, blackboard), sometimes with an intervening hyphen (house-sit), and sometimes as separate words (wet suit: a driver's costume). However, it is usually possible to recognize noun compounds by their stress pattern since the first component is pronounced more prominently than the second (gréenhouse). In non-compounds, conversely, the second element is stressed (green hoúse).

Other Word Formations

3. *Conversion (or Zero-derivation)*

Conversion creates a new word without the use of affixation by simply assigning an already existing word to a new syntactic category. It is the derivational process whereby an item changes its word class without an addition of an affix.

Example: a house → to house, a hand → to hand, to drive → a drive, ...

4. *Clipping / Abbreviation*

Clipping or abbreviation is a process whereby a new word is created by *shortening a polysyllabic* word, i.e. the process of subtracting one or more syllables from a word. The shortening may occur at:

(a) the beginning of the word: *phone* for *telephone, burger* for *hamburger,* ...

(b) the end of the word (more commonly): *prof* for *professor, photo* for *photograph,* ...

(c) at both ends of the word (rare): *flu* for *influenza,* ...

The clipped form lends to be used especially in informal style.

5. *Back formation*

Back formation is a process whereby a word whose form is similar to that of a derived form that undergoes a process of ***de-affixation***, i.e. the removal of an affix from an existing word like the verbs to *televise* from the noun *television*, to *burgle* from burglar, to *babysit* from *babysitter*, to *donate* from *donation,* etc.

6. *Acronymy*

Acronyms are words formed from the initial sounds or letters (or larger parts) of a string of words. New acronyms are freely produced, particularly for names of organizations or a scientific expression: NASA for National Aeronautics and Space Administration, AIDS for Acquired Immune Deficiency Syndrome, RADA for Radio Detecting and Ranging.

The letters represent full words like C.O.D. (cash on delivery), UN - the United Nations. The letters represent elements in a compound or just parts of a word: TV - television, GHQ - General Headquarters

Many acronyms are pronounced as words like RADAR (from 'radio detecting and ranging'):

7. *Blending*

Blends are words that are created from parts of two already existing lexical items. Well-known examples of blends include *motel* from *motor+hotel*, *brunch* from *breakfast+lunch*, *transistor* from *transfer+resistor*.

8. *Reduplicating*

Some compounds have two or more elements which are either identical or only slightly different; eg: goody-goody (* affectedly good *, informal). The difference between the two elements may be in the initial consonants, as in walkie-talkie, or in the medial vowels, eg: criss-cross. Most of the reduplicatives are highly informal or familiar, and many derive from the nursery, eg: din-din ('dinner').

9. *Onomatopoeic words*

These are the words created to sound like the thing to which they refer. They may imitate the sound of animals, of natural phenomena ... Examples of of such onomatopoeic words in English include *cock-a-doodle-doo, meow, chirp, bow-wow, buzz, hiss, sizzle*, and *cuckoo* ...

Summary:

Men always create new words in their communication. The two main way of forming new words in English are *derivation* and *compounding*. Derivation is the process by which a new word is built from a base, usually through the addition of an affix, which is called affixation. If a new word is derived by adding a prefix to a base, the process is specifically named prefixation, if by adding suffix to a base, suffixation. Compounding, on the other hand, is a process involving the combination of two words (with or without accompanying affixes) to make up a new word. Besides these two main ways of forming new words, we also have others such as *coversion* or *zero derivation, back formation, clipping or abbreviation, acronymy, blending, reduplicating, ...*

Exercises:

1. Describe the structure of the following words.

a. nationalization b. internationalism c. impossibility d. subconsciousness

2. What is the rule of word formation of the following?

a. aborigine	d. knitwear	g. self-control	j. pixel
b. air-condition	e. skyjack	h. workaholic	k. tip-top
c. brainwash	f. seesaw	i. tick-tock	l. piano

CHAPTER 6

SYNTAX - AN INTRODUCTION

I. Introduction

SYNTAX is the central component of human language. Language has often been characterized as the systematic correlation between certain types of oral/graphic forms for spoken/written language; and, for signed language, they are manual.

It is not the case that every possible meaning that can be expressed is correlated with a unique, un-analyzable form. Rather, each language has a stock of meaning-bearing elements and different ways of combining them to express different meanings, and these ways of combining them are themselves meaningful. The two English sentences *Chris gave the notebook to Dana* and *Dana gave the notebook to Chris* contain exactly the same meaning-bearing elements, i.e. words, but they have different meanings because the words are combined differently in them. These different combinations fall into the realm of syntax; the two sentences differ not in terms of the words in them but rather in terms of their syntax. Syntax can thus be given the following characterization, taken from Matthews (1982:1):

The term 'syntax' is from the Ancient Greek *syntaxis,* a verbal noun which literally means 'arrangement' or 'setting out together'. Traditionally, it refers to the branch of grammar dealing with the ways in which words, with or without appropriate inflections, are arranged to show connections of meaning within the sentence.

First and foremost, syntax deals with *how **sentences** are constructed*, and users of human languages employ a striking variety of possible arrangements of the elements in sentences. *One of the most obvious yet important ways in which languages differ is **the order of the main elements** in a sentence.* In English, for example, the ***subject*** comes before the ***verb*** and the ***direct object*** follows the ***verb***. In Lakhota (a Siouan language of North America), on the other hand, the subject and direct object both precede the verb, while in Toba Batak (an Austronesian language of Indonesia; (Schachter 1984b), they both follow the verb.

The changes in the form of the words to indicate their function in the sentence are what Matthews referred to as *'inflections'*, and the study of the formation of words and how they may change their form is called **morphology.** The relationship between syntax and morphology is important: something which may be expressed syntactically in some languages may be expressed morphologically in others. Which element is subject and which is object is signaled syntactically in theses languages, while it is expressed morphologically in the others. *Syntax and morphology make up what is traditionally referred to as **'grammar'**; an alternative term for it is **morphosyntax,** which explicitly recognizes the important relationship between syntax and morphology.*

1. *Syntax: definition*

SYNTAX is the study of *how words are combined to form sentences* in a language. Thus, syntax concerns the ***system of rules*** and ***categories*** that *underlies sentence formation;* and, *the internal structures of sentences.*

2. *Grammaticality and Ungrammaticality*

A central part of the description of what speakers do is characterizing the **grammatical** (or **well-formed)** sentences of a language and distinguishing them from **ungrammatical** or **(ill-formed)** sentences. Grammatical sentences are those that conform to the rules and principles of the syntax of a particular language, while ungrammatical sentences violate one or more syntactic rules or principles. For example, *The teacher is reading a book is* a grammatical sentence of English, while *Teacher the book a reading is* would not be. Ungrammatical

sentences are marked with an asterisk, hence **Teacher the book a reading is.* This sentence is ungrammatical because it violates some of the word order rules for English, that is (i) basic word order in English clauses is subject-verb-object, (ii) **articles** like *the* and *a* precede the **noun** they modify, and (iii) **auxiliary verbs** like *is* precede the **main verb,** in this case *reading.* It is important to note that these are English-specific syntactic rules.

Well-formed sentences are those that are in accord with the syntactic rules of the language; this does not entail that they always make sense semantically. For example, the sentence *The book is reading the teacher* is nonsensical in terms of its meaning, but it violates no syntactic rules or principles of English; indeed, it has exactly the same syntactic structure as *The teacher is reading a book.* Hence it is grammatical (well-formed), despite being semantically odd.

A sentence is grammatical if native speakers judge it to be a possible or acceptable sentence of their language.

The boy chased the rabbit.

** Chased the boy the rabbit.*

- Grammaticality is not based on what is taught in school but on the rules acquired or constructed unconsciously as children. Much grammatical knowledge is 'in place' before we learn to read.

The ability to make grammaticality judgments does not depend on having heard the sentence before. You may never have heard or read *Enormous crickets in pink socks were dancing at the ball* but your syntactic knowledge will tell you the sentence is grammatical.

- Grammaticality judgments do not depend on whether the sentence is meaningful or not, as shown by the following sentences:

Colorless green ideas sleep furiously. Or, A verb crumpled the milk.

Although the sentences do not make much sense, they are syntactically well formed. They sound 'funny' but they differ in their 'funniness" from the following strings:

*Furiously sleep ideas green colorless, and, *Milk the crumpled verb a.

The grammaticality of this case is based on the ordering of words and morphemes of a sentence.

- Grammatical sentences may be uninterpretable if they include nonsense strings, that is, words with no agreed-on meaning, as shown by the first two lines of 'Jabberwocky' by Lewis Carroll:

'Twas brillig, and the slithy toves

Did gyre and gimble in the wabe.

Such nonsense poetry is amusing because the sentences 'obey' syntactic rules and sound like good English. Ungrammatical strings of nonsense words are not entertaining:

**Toves slithy the brilltg 'twas*

wabe the in gimble and gyre did.

- Grammaticality does not depend on the truth of sentences either - if it did, lying would be impossible - nor on whether real objects are being discussed, nor on whether something is possible or not.

You all have had 10 marks for the midterm examination.

Those fathers have been pregnant for 3 months.

Unconscious knowledge of the syntactic rules of grammars permits speakers to make grammaticality judgments.

Thus syntactic rules in a grammar must at least account for:

i. the grammaticality of sentences;

ii. the ordering of words and morphemes;

iii. structural ambiguity;

synthetic buffalo hides (***synthetic*** *buffalo hides* ≠ ***synthetic buffalo*** *hides*)

Visiting professors can be interesting.

iv. the fact that sentences with different structures can have the same meaning;

Learning syntax is interesting. = *It's interesting to learn syntax.*

v. the grammatical and logical relations within a sentence;

The student solved the problem.

The problem was solved by the students.

vi. speaker's creative ability to produce and understand any of an infinite set of possible sentences.

3. *Syntactic Categories or Word Classes*

3.1 Aspects of Syntactic Structure

In the syntactic structure of sentences, *two distinct yet interrelated aspects* must be distinguished.

The first one has already been mentioned: *the function of elements as* ***subject*** *and* ***direct object*** *in a sentence.* 'Subject' and 'direct object' have traditionally been referred to as *grammatical relations.* Hence this kind of syntax will be referred to as **relational structure.** It includes more than just grammatical relations like subject and direct object; it also encompasses relationships like **modifier-modified,** e.g. *tall building* or *walk slowly (tall, slowly*=modifier, *building, walk*=modified) and **possessor-possessed,** e.g. *Pat's car (Pat's* = possessor, *car* = possessed).

The second aspect concerns the *organization of the units* which constitute sentences. A sentence does not consist simply of a **string** of words; that is, in a sentence like *The teacher read a book in the library,* it is not the case that each word is equally related to the words adjacent to it in the string. There is no direct relationship between ***read*** and ***a*** or between ***in*** and ***the; a*** is related to ***book,*** which it modifies, just as ***the*** is related to ***library,*** which it modifies. ***A*** is related to ***read*** only through ***a book*** being the <u>*direct object*</u> of ***read,*** and similarly, ***the*** is related to ***in*** only through ***the library*** being the <u>*object*</u> of the *preposition* ***in.*** *The words are organized into units which are then organized into larger units.* These units are called **constituents,** and the hierarchical organization of the units in a sentence is called its **constituent structure.** This term will be used to refer to this second aspect of syntactic structure. Consider the eight words in the sentence *The teacher read a book in the library.* What units are these words organized into? Intuitively, it seems clear that the article *the* or *a* goes with, or forms a unit with, the noun following it.

It is noted that the two aspects of syntactic structure, ***relational structure*** and ***constituent structure,*** are 'distinct yet interrelated', and it is possible now to see how this is the case. For example, a VP was described as being composed of a *verb* and the following NP, but it could alternatively be characterized as involving the *verb* and its *direct object.* Similarly, a PP is composed of a *preposition* and its *object.* NPs, on the other hand, involve *modifiers,* and accordingly the relation between *the* and *teacher* could be described as one of *modifier-modified.* Thus, these two aspects of syntactic structure are always present in a sentence, and when one or the other is emphasized, the sentence is being described from one of the two perspectives.

3.2 Lexical Categories

In the discussion of the constituents of sentences, **noun, verb, adjective, adverb** and **prepositions** are traditionally referred to as 'parts of speech' or 'word classes'; in contemporary linguistics they are termed **lexical categories.** In **traditional grammar,** lexical categories are given **notional definitions,** i.e. they are characterized in terms of their semantic content. In modem linguistics, however, they are defined morpho-syntactically in terms of their grammatical properties.

There is an important opposition that divides lexical categories into two general classes, based on whether the membership of the class can readily be increased or not. (...). Lexical categories such as ***noun*** and ***verb*** whose membership can be enlarged are termed **open class** categories, whereas categories such as ***adposition***, ***determiner*** or ***conjunction***, which have small, fixed membership, are called **closed class** categories.

The definitions of lexical categories given so far are primarily the notional ones from traditional grammar. (...). Let us define ***three very general syntactic functions***: **argument, modifier** and **predicate.** In a sentence like *the teacher read an interesting book, the teacher* and *an interesting book* are the arguments, *read* is the predicate, and *the, an* and *interesting* are modifiers. Similarly, in *Kim is tall, Kim* is the argument and (is) *tall* is the predicate. The term '***argument***' here ***includes NPs and PPs functioning as subject, direct object or indirect object.*** The notions of predicate and argument will be discussed in more detail in the following chapters, but for now one can say simply that ***in a sentence the predicate expresses the state of affairs that the referents of the arguments are involved in.***

Every language has noun and verb as lexical categories. This reflects the fundamental role of reference and predication in communication. One of the most important functions of language is to allow speakers to depict states of affairs in the world, and in order for them to do this, there must be linguistic devices which refer to the participant(s) in a state of affairs and other devices which denote the action, event or situation in a state of affairs.

(Adapted from R. D. Van Valin, Jr., 2001: 4-13; G. P. Delahunty & J.J. Garvey, 1994: 110-154)

Words can be grouped into syntactic categories. They are classified into:

Lexical categories:	Noun, Verb, Adjective, Adverb, Preposition (and)
Non-lexical / Functional categories:	Determiner, Auxiliary, Conjunction, Degree words (= so, very, too, almost, more, quite, ...)

or into 2 word classes:

Open word classes:	Noun, Verb, Adjective, Adverb
Closed word classes:	Determiner, Auxiliary, Conjunction, Preposition, Pronoun

3.3 Grammatical Categories

There is very little consistency or uniformity in the use of the term 'category' in modern treatments of grammatical theory. Following the more traditional usage, we restrict the application of the term to such features associated with the 'parts of speech' in the languages such as **person, tense, mood,** etc. By grammatical category we understand 'a class or group of items which fulfill the same or similar functions in a particular language.' (J.C. Richards, J. Platt and H. Platt 1993:162)

Tense	Present, Past
Aspect	Habitual, Completed (≈ Perfect), Continuous (≈ Progressive)
Mood	Indicative, Imperative, (Subjunctive*)
Voice	Active, Passive

Person	First, Second, Third
Number	Singular, Plural, Dual
Gender	Masculine, Feminine, Neutral
	Animate, Inanimate
Case	Nominative (Subject), Accusative (Object), Dative (Indirect Object), Genitive, Locative, Ablative (direction from), Allative (direction toward), Instrumental

Summary:

Syntax studies the *forms* of the sentences, the *categories* used to constitute the sentences, the *internal structure of sentences* and the *rules of sentence formation.* In the syntactic structure of sentences, two distinct yet interrelated aspects must be distinguished:grammatical relations, revealing the relational structure of sentences; and, constituent relations, revealing the constituent structure. The definitions of lexical categories help define three very general syntactic functions: *argument*, *modifier* and *predicate*. The inflectional morphemes make up the grammatical categories in the (English) language. These inflections mark the *tense, aspect, mood, voice, person, number, gender, and case* categories of the English word classes.

Excercise:

1. Use the grammatical categories of person, number, gender and case to explain/present the formation of pronouns in English. For example:
   I {first person + singular + neutral + subjective};
   Me {first person + singular + neutral + dative}
2. Use the categories of tense and aspect to explain the tenses in English verbs.

CHAPTER 7

PHRASES

I. Introduction

Sentences are not formed by simply stringing words together like beads on a necklace. Rather, sentences have hierarchical structures consisting of groups of words that may themselves consist of smaller groups of words, and so on. This section will focus on the internal structure of *syntactic units built around Nouns, Verbs, Adjectives, Adverbs* and *Prepositions*, with an emphasis on the organizational properties that they have in common. Such units are called **phrases.** Hence, A phrase includes a single word or group of words that do not contain 'Subject-Predicate structure', i.e., has no subject and predicate of its own, and is used (i.e., functions) as a single part of speech.

The fact that she didn't come makes him very very sad.

=> the underlined words look like a clause but they, in fact, do not have a subject and predicate of its own and is used as a single part of speech: a noun group. So, it is a phrase.

II. The Structure of English phrases

The structure of the English phrases is described to have the following components:

1. *Heads*:

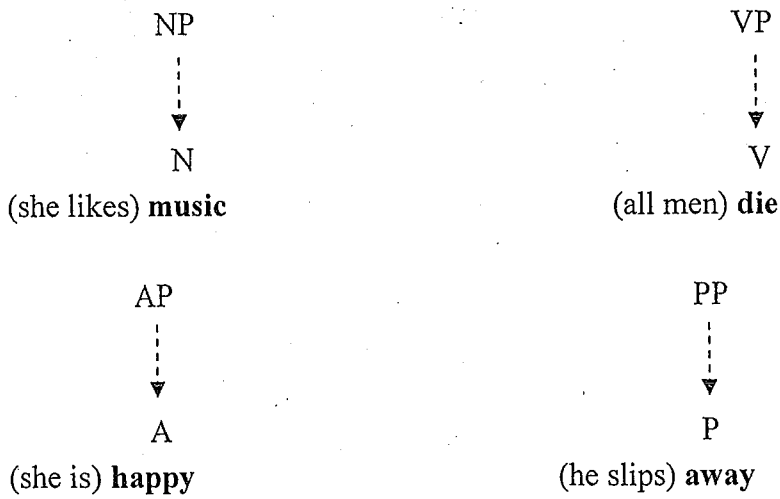
Phrases are built around a 'skeleton' consisting of two levels. (The symbol P in the upper level stands for 'phrase'.)

NP	VP	AP	AdvP	PP	← Phrase level
N	V	A	Adv	P	← Word level

The organization of phrase structure

Each level of phrase structure can be thought of as a sort of 'hook' (like a hook on a pole) to which elements of different types can be attached.

The lowest level is reserved for the word around which the phrase is built - an N in the case of NPs, a V in the case of VPs, and so on. This element is called the **head** of the phrase. As the following examples show, it is possible to have a phrase in which only the head position is filled. (The material in parentheses provides a context in which these one-word phrases might occur.)



Phrases in which only the head position is filled

Although phrases can consist of just one word, they often contain other elements as well. For example:

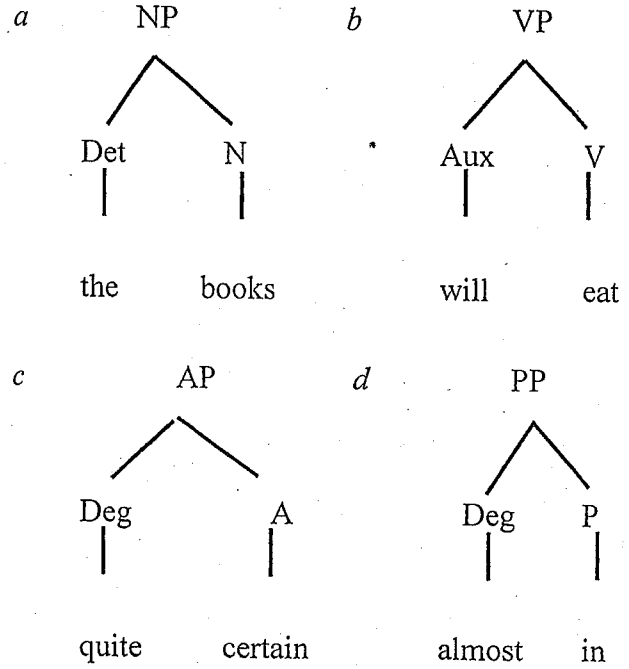
a) [NP the books]
b) [VP will eat]
c) [AP quite certain]
d) [PP almost in]

In addition to a head (the underlined element), each of these phrases includes a second word that has a special semantic and syntactic role.

2. *Specifiers*

These words (determiners such as *the,* auxiliaries such as *will,* and degree words such as *quite* or *almost)* are said to function as **specifiers.** ***Semantically, specifiers help to make more precise the meaning of the head.*** Hence, the Det *the* in (a) indicates that the speaker has in mind specific books, the Aux *will* in (b) indicates a future event, and the Deg words *quite* and *almost* in (c, d) indicate the degree to which a particular property or relation is manifested.

Syntactically, specifiers typically mark a phrase boundary. In English, *specifiers occur at the left boundary* (the beginning) of their respective phrases. *They are attached to the top level of phrase structure, to the left of the head.* Together, these two elements form the phrase structures depicted in the following tree diagrams.



Phrases consisting of a specifier and a head

The syntactic category of the specifier differs depending on the category of the head. As the examples in Figure 3 help show, *determiners serve as the specifiers of Ns, auxiliaries as the specifiers of Vs, and degree words as the specifiers of Adjectives and (some) Prepositions.*

Some specifiers

Category	Function	Examples
Det	specifier of N	the, a, this, those
Aux	specifier of V	will, can, have, be
Deg	specifier of A or P	very, quite, more, almost

3. *Complements*

Consider now some examples of slightly more complex phrases.

a) [NP the books about the war]
b) [VP may eat the hamburger]
c) [AP quite certain about the answer]
d) [PP almost in the house]

In addition to a specifier and a head, the phrases above also contain a **complement.** These elements, which are themselves phrases, provide information about entities and locations whose existence is implied by the meaning of the head. For example, the meaning of *eat* implies an object that is eaten, the meaning of *in* implies a location, and so on.

(The customer) may eat [the hamburger].

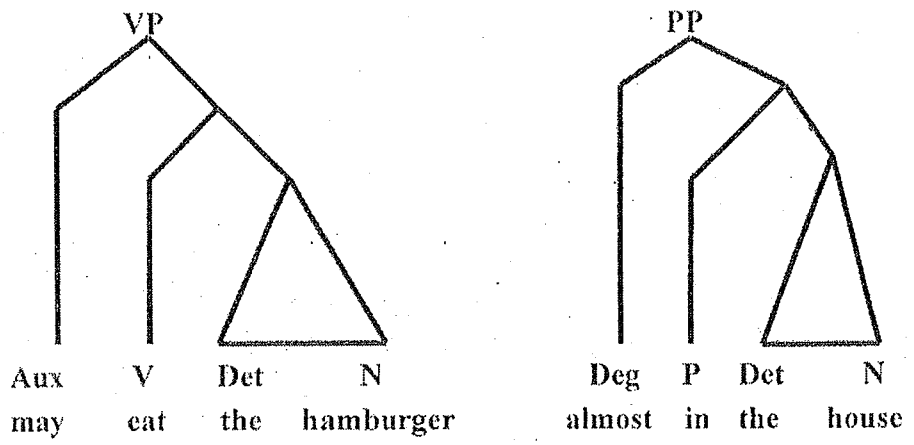
Complement naming the thing eaten

almost in [the house]

Complement naming a location

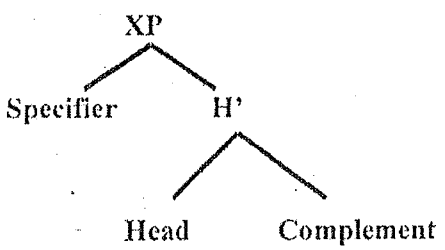
Complements are attached to the right of the head in English (but to the left in many other languages). The below figure illustrates the structure of a VP and a PP consisting of a specifier, a head, and a complement.

Phrases with an NP Complement



As noted above, complements are themselves phrases. Thus, the Complement of the V *eat* is an NP that itself consists of a determiner (*the*) and a head (*hamburger*). This phrase then combines with the verb and its auxiliary specifier to form a still larger structural unit.

The schema of the English phrases is normally described by using a tree diagram as follow:

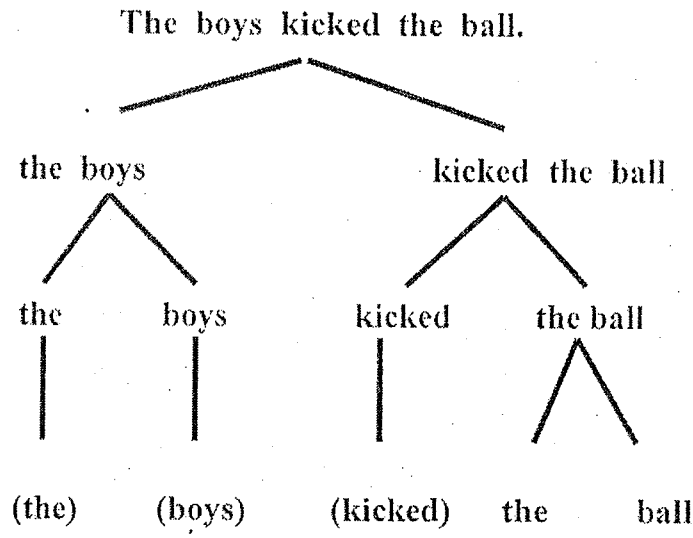


Note: the distribution of the components of English phrases will be presented in the section X-bar theory.

III. Phrase Structure Rules

A sentence can be divided into two or more groups, and within each groups the words can be divided into subgroups, and so on until only single words remain.

Ex: The boys kicked the ball.



Constituents that can be substituted for one another without loss of grammaticality must belong to the same **syntactic category.** The sentence *Old men and women are served first* can be seen or understood as follows:

+ Old (men and women) are served first. (Young men and young women are not.) [AP{NP}]

+ (Old men) and (women) are served first. (Young men are not.) [{NP} + {NP}]

1. *Introduction*

The claims about the structure of the sentence *The boys kicked the ball* can be formulated in terms of 'rewrite rules'. (read ' → ' as 'rewrite as' or, less formally, 'goes to').

1a. S → NP VP

1b. NP → Det N

1c. VP → V NP

(1a - c) are **Phrase Structure** (PS) rules in the sense that they incorporate claims (specified to the right of the arrow) about the constituent structures of phrases (specified to the left of the arrow). PS rules are said to **generate** structures, where generate is understood to mean 'make explicit'. (1a), for example, generates the structure of S by making explicit the information that S consists of NP and VP. (1b), on the other hand, generates the structure of NP by making explicit the information that NP consists of Det and N. Finally, (1c) generates the structure of VP by making explicit the information that VP consists of V and NP. Tree diagrams and labeled brackets are (visual) devices of representing claims about constituent structures incorporated in PS rules.

The PS rules (1a - c) were based on sentence in the previous section, reproduced in (1'). However, their generative capacity goes well beyond (1'), to include all possible sentences in the language with similar strings. (2a - d) are a few examples of such sentences. They all resemble (1') in that they include the same patterns of constituency for each category:

1' The boys kicked the ball.

1'a. [S [NP the boy] [VP [V kicked] [NP the ball]]]

2a. The police arrested the thief.

2b. This man drove that car.

2c. The ball hit the dog.

2d. The girl saw the boys.

To generate a specific sentence of the set of sentences generated by rules (1a-c), another set of rules which generate specific lexical items can be added. (1'), for example, is fully generated by the set of rules in (3):

3a. S → NP VP

3b. NP → Det NP

3c. VP → V NP

3d. Det → the

3e. N → boy, ball

3f. V → kick(ed)

Rules (3a - c) generate **phrasal categories** one constituent of which is a **terminal node.** ***Terminal nodes are nodes that do not branch and that immediately dominate the lexical item.*** For example, *the phrasal category VP has the terminal node V as one of its constituents*, and *NP has the terminal node N as one of its constituents*. **S** is called the **root node.** Rules (3d - f), on the other hand, generate ***terminal nodes*** by introducing ***corresponding lexical items*** in the sentence. The structures generated by both sets of rules are called **phrase markers.**

Obviously, there is also an equally large number of possible sentences which PS rules (3a - c) cannot generate.

The rules that determine the ***basic constituent structure of sentences*** are called **Phrase Structure Rules.**

S	→	NP VP	Det	→	the
NP	→	Det N	N	→	boy, man, telescope
VP	→	V NP PP	Prep	→	with
PP	→	Prep NP	V	→	saw (see + past)

The PS rules for generating the sentence '*The boy saw the man with the telescope*' are as follows:

S	→	**NP**	**VP**	The boy || saw the man with the telescope
NP	→	**Art**	**N**	The || boy
VP	→	**V**	**NP**	saw || the man with the telescope (or)
VP	→	**V**	**NP PP**	saw || the man || with the telescope
NP	→	**Det**	**N**	the || man
PP	→	**Prep**	**NP**	with || the telescope
NP	→	**Det**	**N**	the || telescope

2. *'X-bar' theory*

PS rules generally recognize only one level of representation above the terminal node, namely the phrasal level VP, AP, PP ... etc. (XP). This can be clearly seen in (4a-d) which are abstracted from the corresponding PS rules discussed above

4a. VP →... V ...

4b. NP →... N ...

4c. AP →... A ...

4d. PP → ... P ...

Read from right to left, rules (4a-d) encode the generalization that the structural representation of every category includes a phrasal level, i.e. XP. For example, the structural representation of V includes VP, the structural representation of N includes NP, and so on. The phrasal level (XP) is called the **maximal projection** (of X) in X-bar terminology. Read from left to right, the rules in (4a-d) convey a different, but related, generalization, namely that ***every XP has X as an obligatory constituent.*** For example, VP has V as an obligatory constituent, NP has N as an obligatory constituent, and so on. In X-bar terminology, **the obligatory constituent of a maximal projection** is called the **head** (of that maximal projection). This generalization is related to the previous one in the sense that it actually follows from it. If the structural representation of every category includes a maximal projection, then every maximal projection will include the category (i.e. the head) of which it is the maximal projection.

This core property of PS rules can be captured in terms of the schema in (5), where X has the same categorial value on both sides of the arrow, e.g. if X = V, then XP = VP. (5) is a schema in the sense that it identifies a property which all members of the class of PS rules in question have in common. It is understood as a condition on the structural representation of categories insofar as it specifies the format that such representations must conform to:

5. XP → ... X ...

Although (5) basically captures a common property of PS rules, there is a sense in which it is more restrictive than PS rules. Because the latter are rewrite rules, and because systems of rewrite rules generally make it possible in principle to rewrite a given symbol as one or a combination of any (number of) symbols, nothing seems to exclude unattested representations of the type illustrated by the rules in (6a&b). However, these rules are excluded by schema (5) on the grounds that they do not observe the condition that every maximal projection must have a head, and that a maximal projection exists insofar as it is a projection of a lexical head:

6a. *VP --> N

6b. *NP --> PP VP

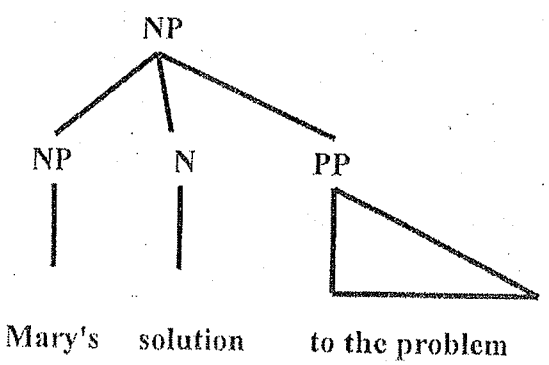
Specifiers and Complements

One of the serious shortcomings of PS rules is the fact that they do not reflect structurally the distinction between subcategorized and non-subcategorized categories in relation to the head. The PS rule which generates the NP in (7a), for example, has the form shown in (7b) and generates the structure shown in (7c):

7a. Mary's solution to the problem

7b. NP --> NP N PP

7c.

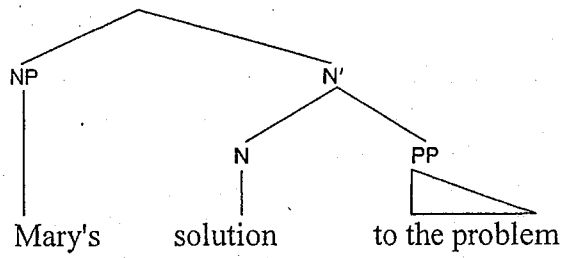


The PP *to the problem* is the complement of the noun *solution* and the NP *Mary* its (logical) subject. However, both the PP complement and the NP subject are sisters to the head N and therefore to each other. This is an undesirable situation, if only because it seems to undermine

the claim that grammatical functions are structurally based. *Under a structural definition of grammatical functions, subjects and complements are expected to have* ***different*** *structural or grammatical relations.* In the structure of the sentence (S), the complement of the verb is a sister of the verb, but the subject of the sentence is not. The structure of NP needed is one where the subject and the complement have different structural relations with respect to the head **N**. Recall that the notions 'complement' (or object) and 'sister' are closely related. *The complement of a head is structurally represented as its sister.* In view of this, it seems that it is the structural relation that the subject has with the head N which needs to be modified in (7).

The required modification can be simply achieved by *recognizing an additional level of categorial representation intervening between the head and its maximal projection.* This additional level is called **X'** (read X-bar). *The intervening level will include the head and its complement and exclude the subject.* Incorporating this new level into (7c) yields the structure shown in (8) which makes a clear structural distinction between the subject of NP and the complement of N. The subject is the daughter of **NP** and sister of **N'**, and the complement is the daughter of **N'** and sister of **N**:

8. NP



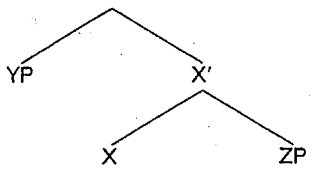
Pursuing our attempt to replace PS rules with general schema which act as conditions on the structural representation of categories, the schema underlying

(8) can be stated as in (9a&b):

9a. XP --> YP X'

9b. X' --> X ZP

9c. XP



(9c) is the abstract structure they generate. X, Y and Z are variables which stand for any category. In (8), for example, X = N (*solution*) with the inevitable consequence that X' = N' (*solution to the problem*) and XP = NP (*Mary's solution to the problem*). YP = NP (*Mary*) which is a subject by virtue of being daughter of NP and sister of N'. ZP = PP (*to the problem*) which is a complement of N by virtue of being a sister of N.

The intermediate level between the maximal projection XP and the head X is X', called the **single bar projection.** The hierarchical relations between the three separate levels of categorial representation are sometimes represented in terms of the number of bars (or primes) associated with each level. This is shown in (10a&b), which are purely notational variants of (9a&b). The hierarchy is from 'double-bar' (X" = XP) to 'single-bar' (X' = X') to 'zero-bar' (X° = X) or vice versa. The double-bar projection is the maximal (or phrasal) projection and X the head. The asterisk associated with the complement category Z" in (10b) means 'zero or

more occurrences'. It is intended to reflect the (familiar) fact that the presence of complements, their number and their nature depends on the lexical item in the head position:

10a. X" → Spec* X'

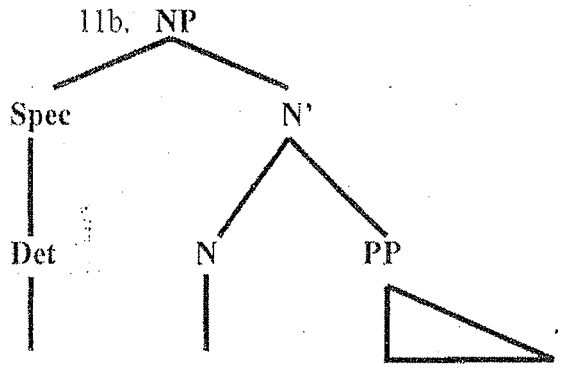
10b. X' → X° Z"*

Spec(ifier) is a functional term which refers to the category which is the daughter of XP and the sister of X'. Often the term 'Spec' is used interchangeably with the term 'subject' especially in relation to categories that are smaller than a clause/sentence. The Spec of an NP, for example, can be another NP as in (8), a determiner as in (11) or nothing as in (12):

11a. the solution to the problem

12a. Mary

11b.

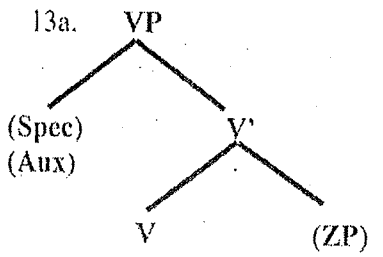


12b.

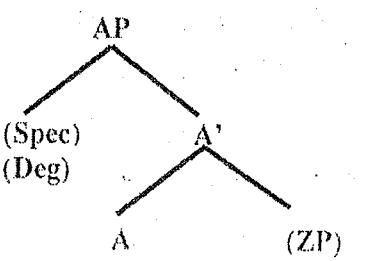
The option of not having a Spec at all is indicated by the asterisk in (10a), which has the same meaning as in (10b). Recall that determiners are determined by the type of N the NP includes. English names such as *Mary* do not take a determiner, unlike common nouns such as *solution* which can take either a determiner (11) or a whole NP Spec (8). Later on we will see that there is a limit on the number of Specifiers that a phrase could have such that a phrase cannot have more than one Specifier.

X-bar schema applies to all categories in the same way, as indicated by the use of variables in their formulation. Thus, **V** is expected to have the representation in (13a), **A** the representation in (13b), **P** the representation in (13c), and so on.

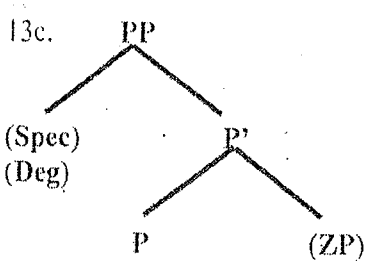
13a.



13b.



13c.



By letting the more abstract symbol X" (X-double-bar) stand for either NP or AP, X' stand for N' or A', and X stand for N or A, we can write a general rule that covers both noun phrases and adjective phrases:

X" --> (specifier) X'

X' --> X (complement)

where *specifier* is Art for NPs and Deg for APs. *Complement* is either PP or S'. This rule 'schema' stands for the six rules:

NP --> (Art) N'

AP --> (Deg) A'

N' --> N (PP)

N' --> N (S')

A' --> A (PP)

A' --> A (S')

Verb phrases pattern similarly insofar as complement goes:

He sent *for his three fiddlers.* (PP)

He believes that *the patient recovered.* (S').

NP	→	**Det**	**N'**			The	lady in red
			N'	→	**N PP**	lady	in red
N'	→	**AP**	**N'**			very large	black dog
AP	→	**A'**	**PP**			quite good	at English
VP	→	**V**	**S'**				
S'	→	**C**	**S**				

(**C** = Complementizer)

(adapted from Jamal Ouhalla, 1999: 113-117)

IV. Characteristics of Phrases

1. *The Prepositional Phrase (PP)*

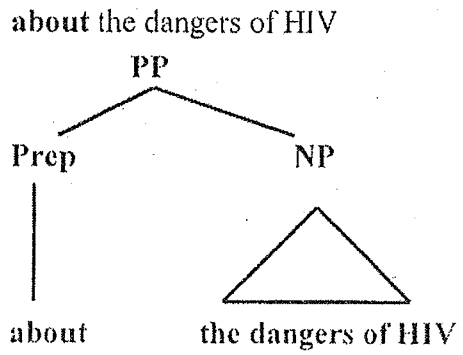
- The functional formula: **Head** + Complement
- The formal version of PP: **Preposition** + NP

Example: **about** the dangers of HIV

from the bottom of my heart

A prepositional phrase (PP) consists of a preposition followed by a noun phrase. Prepositional phrases are easy to spot. The first part of a PP is the preposition and the second part of it is its object, a noun phrase. This terminology also suggests the central role of the preposition wothin its phrase.

- Sample tree diagram:



- PS Rules:

  PP → Prep (NP)
  PP → P'
  P' → Prep (NP)

2. *The Adjective Phrase (AP)*

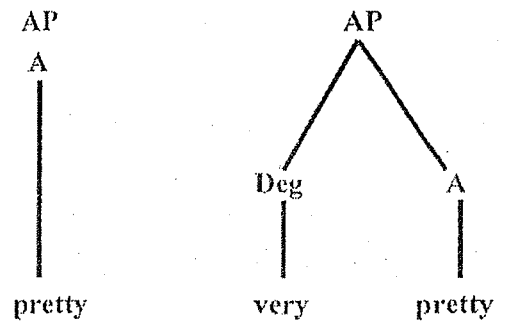
The head of an adjective phrase (AP) is an **Adjective.** An AP often contains only a single word, the head adjective; but the complete functional possibilities are more extensive:

- The functional formula: (Specifier) + **Head** + (Complement)
- The formal version of AP: (Degree Adv) + **Adjective** + (NP / PP / S' {finite / non-finite})

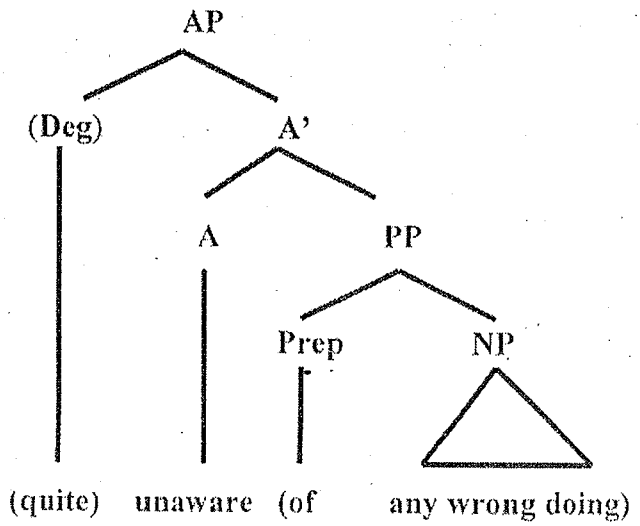
Example: **important** (Head alone)
very **important** (Spec + Head)
unaware of any wrongdoing (Head + Complement)
unaware that everyone had confessed (Head + Complement)
afraid to make any move (Head + Complement)
quite **unaware** of any wrong doing (Spec + Head + Complement)

Complements of adjectives are of two types: ***prepositional phrase***, and ***clauses*** (finite and non-finite clause). In other words, an adjective phrase doesn't always end with the head adjective; it may contain further grammatical structure. As you become acquainted with adjectives, you will realize that *only <u>some</u> adjectives take complements* - particularly those that semantically refer to *mental* or *emotional states*, e.g., *aware, afraid, sorry, disappointed, astonoshed, hopeful, sad.*

- Sample tree diagram:



- (quite) **unaware** (of any wrong doing)



- PS Rules:

AP → (Deg) Adj
AP → A'
A' → A PP
A' → A S'
AP → A''
A'' → Deg A' (A' → A PP / S')

3. *The Adverb Phrase (AdvP)*

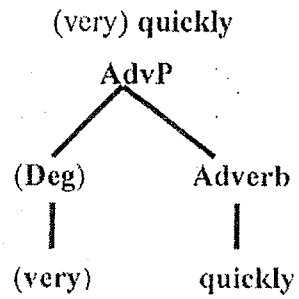
Adverb Phrases contain a **head adverb** and an (optional) intensifier (degree adverb) drawn from the same limited class (very - quite - rather - too - more - most - only - ...)

- The functional formula: (Spec) + **Head**
- The formal version of AdvP: (Deg) + **Adverb** (Deg = degree adverb/word)

Example: **quickly** (Head alone)
very **quickly** (Deg + Head)

As we noted for single adverb (i.e., adverb phrases with head alone), adverb phrases are relatively movable within a sentence.

- Sample tree diagram of AdvP



- PS Rules:

AdvP → (Deg) Adv

4. *The Noun Phrase (NP)*

The Noun phrase functional formula has three parts:

- The Functional formula: (Specifier) + **Head** + (Complements)
- The formal version of NP (Premodifier*) + **Noun** + (Postmodifier*)

(* asterisks denote elements that may appear more than once.)

The NP formula states that a noun phrase must contain a headword but need not contain anything else. If the NP has more elements than the ***head***, it may contain one or more premodifiers (which precede the head) and/or one or more postmodifiers (which follow the head). The formula thus abbreviates several possibilities:

NP → **Noun;**
NP → Premodifier* + **Noun;**
NP → **Noun** + Postmodifier*;
NP → Premodifier* + **Noun** + Postmodifier*

4.1 Simple Noun phrases: Head alone

4.1.1 Single-Word Noun Phrases

Single word noun phrases will always consist of a headword which is a noun or pronoun.

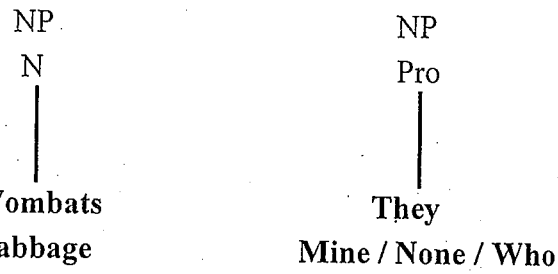
Noun	**Wombats** are playful
	Cabbage is nutritious.
Personal pronoun	**They** saw **her.**
Personal genitive pronoun	**Mine** are chartreuse.
Indefinite pronoun	**None** was/were found.
Wh-word	**Who** pay the bill?

- PS rule:

  NP → N

  NP → Pro

- Tree diagram



4.1.2 Simple Noun phrases: Specifier + Head

Simple NPs can also contain a noun head preceded by a single-word premodifier. The range of premodifiers of noun heads is large, including nearly all of the parts of speech, at least in some form. The below examples present some basic possibilities.

Simple Premodifiers

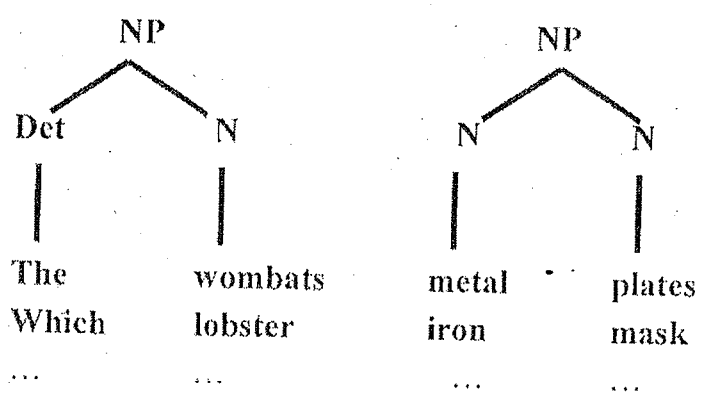
Article	**The *wombats*** // escaped.
Demonstrative pronoun	**That *vase*** // is valuable.
Possessive pronoun	**Her *serve*** // is powerful.
Indefinite pronoun	**Some *survivors*** // remained
Wh-word	**Which *lobster*** // do you want?
Numeral (cardinal)	**Seven *boxes*** // fell.
Numeral (Ordinal)	**Second *thoughts*** // entered our mind.
Noun (phrase)	**metal *plates*** // shielded the instruments.

- PS rule:

  NP → Det N

  NP → N N

- Tree diagram



4.1.3 Simple Noun phrases: Head + Complement (=PP)

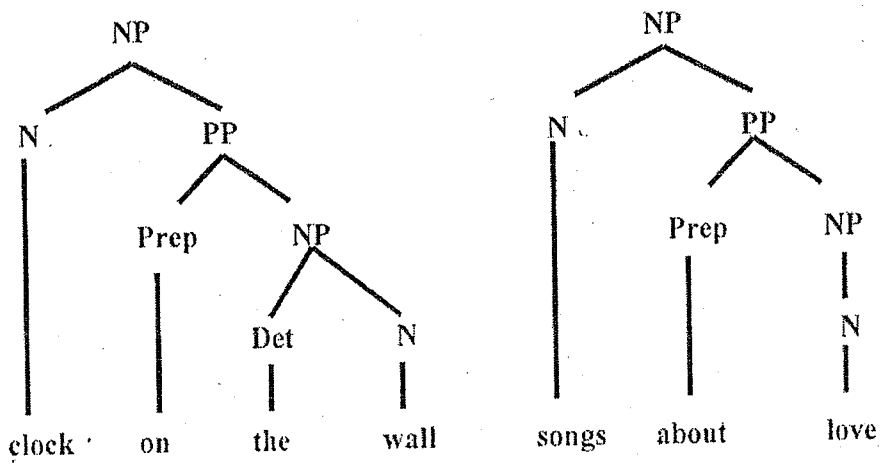
Most of the simple premodifiers above contain one word. The least complex postmodifier - and by far the most common - is a *prepositional phrase* (PP). For example:

Songs **about love**	Clock **on the wall**	Walks **with my mother**
Arguments **about abortion**	Reasons **for my hesistation**	Sources **of concern**

- PS rule:

  NP → N PP

- Tree diagram:



4.1.4 Multiple and phrasal premodifiers

Our examples so far have provided only single-word premodifiers. In fact, premodifiers can be multiple:

- **Multiple Premodifier**

The two culprits	***article - numeral***
Those metal plates	***demonstrative - N***
Several other candidates	***two indefinites***
One such oddity	***numeral - indefinite***
A second chance	***article - ordinal***

- **Phrasal Premodifiers**

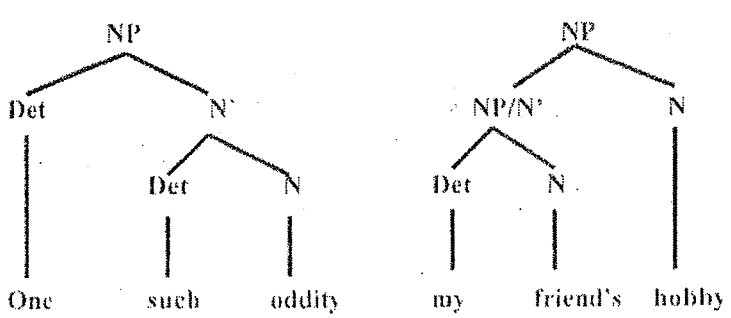
My friend's hobby // is knitting.	***Genitive NP***
Very old memories // return easily.	***AP***
Carelessly organized meetings // annoy everyone.	***Verbal phrase***

- PS rule:

  NP → Det N' **NP → N' N**

  N' → Det N **NP → AP N**

- Sample tree diagram:



4.2 Complex Noun Phrase

Much more common cases in complex noun phrase are the various sorts of phrases and clauses that follow head nouns. The prepositional phrase that follows head noun contains NPs, which can contain PPs that contain other NPs that can contain a PP... The following NP is an example.

The book **in the drawer /of the desk //in the office ///of the leader ////of the rebellion /////against the oppression //////of readers ///////of tales ////////of adventures /////////on far planets //////////of the galaxy**

4.2.1 Complex Noun Phrases: Complex Postmodifiers

Adjective Phrase	[Anyone **fond of kumquats**] should buy this recipe book.
Appositive NP	[His nominee, **an infamous scoundrel**,] is unlikely to be elected.
Verbal Phrase	[The contestant **guessing the title**] will win a vacation in Tahiti.
	[The person **seated at the president's right**] is her bodyguard.
	[The player **to watch**] is Tzrdsky.
Relative Clause	The contestant [**who guesses the title**] will win a trip to Tahiti.
Noun Complement Clause	The realization [**that his hair was false**] amused the audience.
Appositive Noun Phrases	[His nominee, **an infamous scoundrel with principles learned from years of service in one of the most corrupt political machines ever devised by the devious minds that have blemished history**,] is unlikely to be elected.

4.2.2 Complex Noun Phrases: Coordination

It is possible to repeat NPs twice, thice, ...even an infinite number of times. Coordinated NPs will be joined by a coordinate conjunction, usually *and* or *or*, as in:

My sister and her best friend will deliver the letter.

NP → N'1 N"'2
N'1→ Det N1 (my + sister)
N"'2 → Conj N"2 (and + N"2)
N"2 → Det N'2 (her + N'2)
N'2 → A N2 (best + Friend)

Old men and women will be served first.

NP → A N" (old + N")
N" → N1 N"2 (men + N"2)
N"2 → Conj N2 (and + women); (or)

NP → N'1 N'2
N'1 → A N1 (old + men)
N'2 → Conj N2 (and + women)

- PS Rulles of English Noun phrases:

NP → (Det) N
NP → Pro(noun)
NP → AP N
NP → N PP

NP → N S'
NP → Det N'
N' → AP N
N' → N PP
N' → N S'
NP → Det N''
N'' → AP N'
N' → N PP
N' → N S'

(plus PS Rules described in 4.2.2)

5. *The Verb Phrase (VP)*

The verb phrase has a verb as its head. Let's start with the functional formula for VPs and then examine the forms that can satisfy that function:

- The functional formula: (Specifier) + **Head** + (Complement)
- The formal version of VP: (Auxiliary*) + **Verb** + (NP) / (AP) / (PP) / (AdvP)

The English verb phrase could be of the following possibilities:

Verb head alone; or,
Auxiliary* + Verb head: or,
verb head + (NP Object(s) / NP or AP Complement); or,
Verb head + AdvP modifier*; or,
Combination of the above

5.1 Simple Verb Phrases

- Simple Verb Phrase: Head alone

Single-word VPs always consist of head word that is a verb:

Hector **walks.**
All of the students **agree.**
The baby **cries.**

- PS rule:

VP → V

- Simple Verb Phrase: Auxiliaries and Head

The major auxiliary verbs in English are *be, have* and *do*.

The zombies **departed** from Hector's house.	(Head alone)
Hector **is acting** strangely.	(be + Head Verb)
Hector **has** never **looked** at me like that.	(have + Head Verb)
Hector **does not eat** vegetables.	(do + Head Verb)
Hector **has been consorting** with the zombies.	(have + be + Head Verb)

- PS rule:

VP → Aux V'
V' → Aux V'

Verb Phrases: Verb Head + NP Objects(s) / NP or AP complement
Verb Head + S as Object or complement

A phrase that obligatorily follows a verb head is called an ***object*** or ***complement***. These terms are roughly convertible, although tradition has attached the word "object" to some constructions and "complement" to others. The reasons for the variation are obscure. The label "object" dimly suggests the goal or purpose of the verb head, although neither of these semantic labels applies to every structure so labeled. The term "complement" suggests the notion of completing (hence the spelling) the verb in some way. This label also isn't a reliable clue to structure. The below sentences show the main types of objects and complements. A quick inspection of the sentences will reveal that noun phrases can serve any object or complement function and that adjective phrases can also act in complement functions. An important grammatical notion associated with the direct object is that of transitivity. A transitive verb takes a direct object; an intransitive verb doesn't.

Direct Object	The Vikings // demanded **tribute**. (V + NP)
Indirect Object	Waldo // gave **his sister** a dictionary. (V + NP1 + NP2)
Subject complement	Freud // was a **prude**. (V + NP)
	Freud // was **prudish**. (V + AP)
Object complement	I // consider *Jung* **a quack**. (V + NP) / **unreliable**. (V + AP)
Complement Clause	I // think **that Freud was a prude.** (V + S complement)

Verb Phrases: Verb Head + AP / PP / NP Modifier

To distinguish verb modifiers from modifiers of noun, modifiers of verbs often have the special names such as **adverbial** and **adjunct**. Formally, modifiers are of only four types as indicated in:

Adverb Phrase	We // left **very early**.
Prepositional Phrase	We // stayed **in Helsinki**.
Adverbial Clause	We // left **after it started to snow**.
Noun Phrase	We // walked **a great deal**

- PS rules:

VP → V (NP) / (AP) / (PP) / (AdvP) / (S')

Adverbial clauses begin with the subordinating adverbial conjunctions mentioned in the preceding chapter. Like single adverbs, the phrasal and clausal modifiers are somewhat movable in the sentence:

Very early, we left.

After it began to snow, we left.

Sometimes a short (one- or two-word) adverbial will appear within the VP:

We very often eat out.

She has very often donated her legal services.

Noun phrase adverbials may be confused with direct objects. However, they will never become the subject of a corresponding passive sentence:

a. **A great deal was walked by us.*

b. *We walked a great deal.*

Example (a) is ungrammatical because a great deal isn't the true direct object.

The adverbials that modify verbs can be grouped semantically according to the semantic roles that they express. The most common appear below

5.2 Complex Verb Phrases: Combinations of functions

Although we have illustrated separately each of the functions accompanying the verb head, the options in the formula stated at the beginning of this section allow for more than one function to appear with the verb.

She // ***has been*** | ***speaking*** | ***for three hours.***

(Aux* + V-Head + PP-Modifier)

Scott // ***offered*** | ***Zeida*** | ***a ride*** | ***since her car was out of gas.***

(V-Head + NP-Indirect Object + NP-Direct Object + Adv Clause-Modifier)

Hortense // ***never*** | ***becomes*** | ***angry with Heathcliff.***

(AdvP + V-Head + AP-Subject complement)

The remains // ***will be*** | ***shipped*** | ***to Cleveland*** | ***on Wednesday.***

(Aux* + V-Head + PP-Modifier + PP-Modifier)

- PS rule:

VP → Aux V'

(V' → Aux V')*

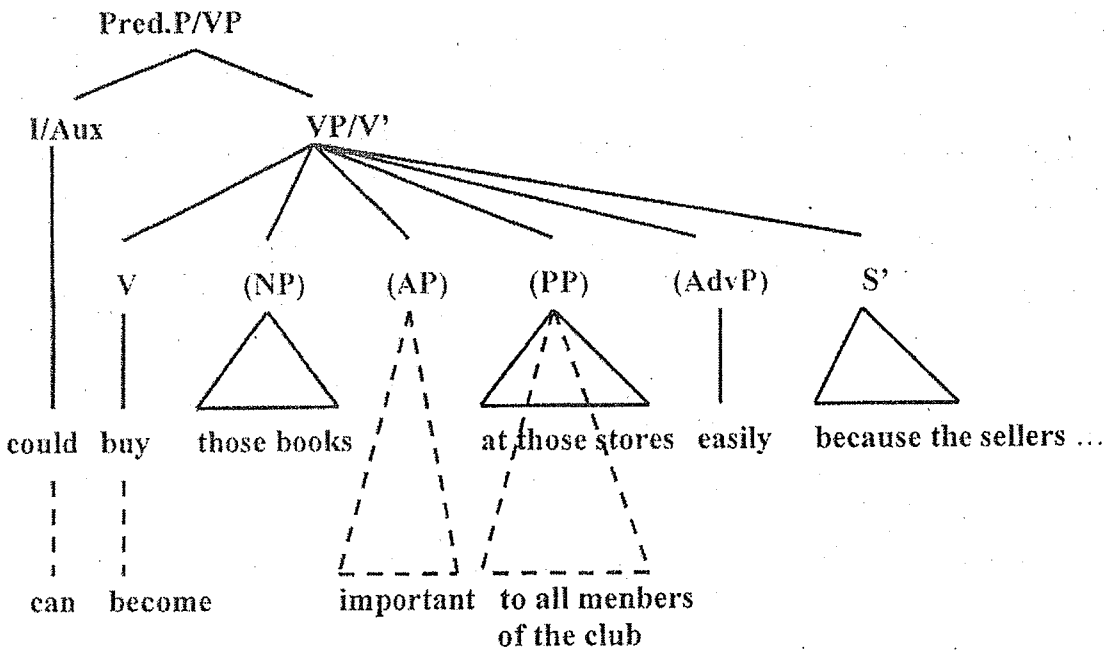
V' → V (NP) / (AP) / (PP) / (AdvP) / (S')

In describing the rule generating English complex verb phrases, Jacob (1995, p.89) used the term Predicate Phrase (Pred. P) for the term verb phrase (VP) as the phrase marker. The rule used to generate the English verb phrase is presented as follows:

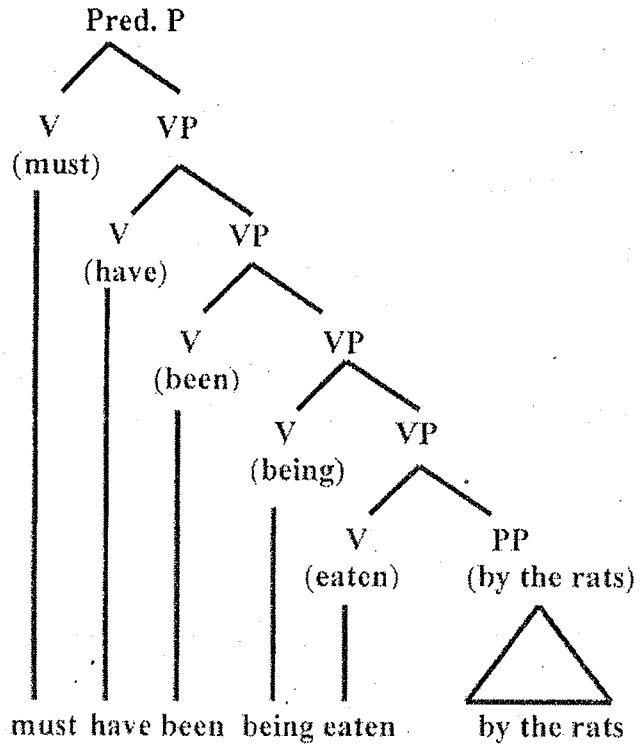
Pred. P → V VP

(VP → V VP) *

Wheras the V, functioning as the specifier of the phrase, is the major/primary and/or modal auxiliary that specifies the whole predicate phrase (verb phrase). The last V will be the head verb.



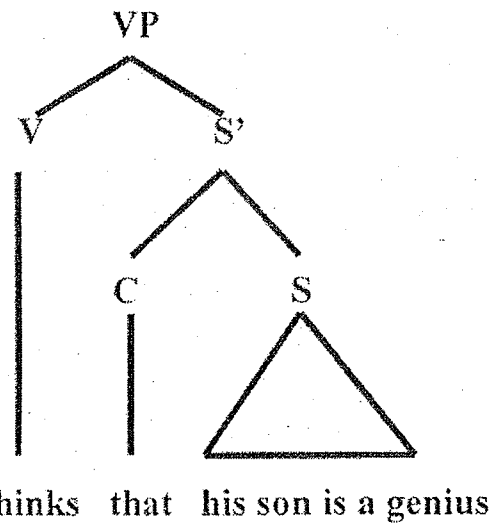
(...) must have been being eaten by the rats



VP → V S'

S' → C S (C/Comp = complementizer)

(The man) thinks that his son is a genius



5.3 Verbal Phrases

Verb phrases have one prominent purpose in life: to function as predicates along with subjects and thus to form clauses. That single role is a powerful one, but it would be a shame if such a linguistic marvel as a verb phrase would have no other use in the language. In fact, English has arranged for verb phrases to serve a much wider variety of functions - though at a small cost.

Traditional grammarians regularly distinguish these varied extended functions as **verbals.** However, this label suggests that we are dealing with properties of single verbs. In fact, the functions are filled by phrases. For this reason, we will call the structures that enter into such functions **verbal phrases**. Whenever we use the term *verbals,* then it's shorthand for verbal phrases. Traditionally, the verbal phrases include **participles, gerunds,** and **infinitives.**

A verbal phrase is a verb phrase without tense and modals. The grammatical term **nonfinite** encapsulates this restriction. **Finite** verbs are thought to be "limited" by the presence of tense. Those VPs ***without tense*** are "unlimited" or ***nonfinite***. Aside from this minor formal restriction - and a few others - verbal phrases look like other VPs: They have perfect, progressive, and passive auxiliaries, objects, complements, and modifiers.

One might also extend the notion of being unlimited to the range of functions into which the verbal phrases enter. While their functions aren't totally unrestricted, they can act as modifiers (premodifiers, postmodifiers, adverbial modifiers) or can substitute for noun phrases.

5.3.1 Participles

V-ing
V-en

A participle is a verbal phrase whose first verb is V-ing or V-en; it functions as a premodifier or a postmodifier of a noun head.

By calling it a verbal phrase, we indicate that the participle lacks tense and modal but may include other auxiliaries, objects, complements, and modifiers. We also identify an important formal property of the participle, the use of V-ing or V-en at the beginning. Finally, we specify precisely the functions of the participle without confusing it with adjectives.

Forms of Participles

	V-ing	**V-en**	**Have + V-en**
Active	freezing	frozen	having frozen
Passive	being frozen		having been frozen

The major functions of participles are illustrated below:

a) A *cheerfully singing* bird is a delight. (Premodifier in NP)

b) A tablet *inscribed with cuneiform* was discovered. (Postmodifier in NP)

c) The old road, *winding beside the stream,* brought back fond memories. (Appositive Postmodifier in NP)

5.3.2 Gerunds

A gerund is a verbal phrase whose first verb is V-ing; it functions in the range of NPs.

Formally, gerunds resemble participles, except that they cannot have a verb head with V-en. They can, however, express passive voice through the be + V-en. Only four verb groups are possible for gerunds:

	V-ing	**Have + V-en**
Active	praising	having praised
Passive	being praised	having been praised

Like participles, gerunds are subject to historical change, turning into regular nouns over time. Such changes are completed when the noun can be pluralized, as in:

The commission's **findings** were disputed.

5.3.3 Infinitives

The word infinitive is used by grammarians in two ways. First, it refers to the basic form of verb as it would appear if you looked it up in an English dictionary. A second definition is 'a verb, usually preceded by to, that is used as a noun or modifier.' Rephrasing this traditional definition to recognize infinitives as phrases and to remove the confusion of form and function, we adopt a definition of infinitive as follows:

An infinitive is a verbal phrase, usually beginning with to, that functions in the range of noun phrases, or as a modifier or complement.

Forms of Infinitives

	to + V	**to + have V-en**	**to + Be V-ing**	**to + Have + Be V-ing**
Active	to sing	to have sung	to be singing	to have been singing
Passive	to be sung	to have been sung		

The typical range of infinitives is as follows:

[a] *To steal from the poor* is inexcusable. (Subject)

[b] I hate *to eat breakfast.* (Direct Object)

[c] It is inexcusable *to steal from the poor.* (Extraposed Subject)

[d] I consider it impossible *to do any better.* (Extraposed Direct Object)

[e] My ambition is *to retire in Tahiti.* (Subject Complement)

[f] I have one ambition, *to retire in Tahiti.* (Appositive)

5.4. Recursive Rule

The recursive rule describes the type of English sentence in which the category on the left side of the arrow is repeated on the right side. For example:

You mean (that) you didn't know (that) I know that she didn't know that I saw her eat out with her boyfriend in the Indian restaurant.

This is the farmer sowing the corn,
that kept the cock that crowed in the morn,
that waked the priest all shaven and shorn,
that married the man all tattered and torn,
that kissed the maiden all forlorn,
that milked the cow with the crumpled horn,
that tossed the dog,
that worried the cat,
that killed the rat,
that ate the malt,
that lay in the house that Jack built.

(Adapted from Delahunty, G.P. & Garvey, J.J., 1994: 177-202)

Summary:

Phrases are linguistic materials used to build sentences. Phrase is defined as 'a single word or group of words that do not contain 'Subject-Predicate structure', i.e., has no subject and predicate of its own, and is used (i.e., functions) as a single part of speech'. Generally, a phrase in its complete form has three components: *head*, *complement* and *specifier*. The

complement completes the meaning of the head, making up one constituent; and, the specifier specifies that constituent and, in turn, makes up the phrase.

The phrase structure rules help generate or make explicit the structure of the phrases. The English language has five kinds of phrases. They are noun phrase (NP), adjective phrase (AP), adverb phrase (AdvP), prepositional phrase (PP), and verb phrase (VP). Each kind has its own characteristics and rules of formation (PS rules). The verbal phrases consist of the participle (present and past participles), the gerund and the infinitive phrases. These are non-finite verb phrase and are recognized to be dependent ellipted clauses.

Exercises:

Generate (make explicit) the internal structure of the following phrases, using tree diagram.

1. A man with long hair
2. The tall girl with short curly hair
3. The very tall girl with short curly hair in the room
4. angry at those stupid awards
5. quite ignorant about modern science and technology
6. [The man] went into the store with a crowbar. (VP only)
7. [...] should be made by hand
8. [...] could have been sent to us from a far planet

CHAPTER 8

SENTENCES

I. Introduction

Bloomfield's definition of the sentence will serve as a starting-point for our studying. According to Bloomfield a sentence is '*an independent linguistic form, not included by virtue of any grammatical construction in any larger linguistic form*'. (...) The point of Bloomfield's definition can be stated more concisely as follows: *the sentence is the largest unit of grammatical description.* A sentence is a grammatical unit between the constituent parts of which distributional limitations and dependencies can be established, but which can itself be put into no distributional class. (Bloomfield, cited in J. Lyons 1972: 172-173)

Formally, sentence can be understood as a single free utterance, minimum (= simple sentence) or expanded (= compound, complex sentence). It is not included in any larger structure by means of any grammatical device. For example:

1a. *Your mother has borrowed the car. She should be back in about an hour.*

1b. *He is staying with his aunt because the College food is wretched and the rooms aren't heated.*

1c. *The College food is wretched and the rooms aren't heated.*

1d. *The College food is wretched - I am staying with my aunt*

(1a) is an example consists of 2 sentences, as the period after the word (car) is a grammatical device marking the end boundary of the previous sentence. The capital S of the word (she) marks the beginning of the second sentence and the period after the word (hour) marks the end of the second sentence. (1b), (1c) and (1d) are examples consist of only 1 sentence each. Each of them consists of what is called 2 clauses as there is no grammatical device marking the end of the first sentence and the beginning of the second one. Thus, what is a clause?

Clause: a clause is a group of words with its own subject and predicate (a finite, non-finite or implied verb phrase) if it is included into a larger sentence. A clause forms a sentence (=independent clause, simple sentence); or, part of a sentence (dependent clauses) and often functions as noun, adjective or adverb.

II Characteristics of Sentences

What is the internal organization of sentences? (How are units distributed within a sentence?) To understand the internal organization of sentences and the distribution of the units forming them, we must consider three major properties of sentence structure:

1. *Linearity:*

Sentences are produced and received in a linear sequence. The functions of the sentence components in English help classify the simple English sentences into seven (7) basic types:

1.1	S	V		
1.2	S	V	O	
1.3	S	V	O	A
1.4	S	V	C	
1.5	S	V	A	
1.6	S	V	O	C
1.7	S	V	O.i	O.d

What should be noted here is S(ubject), V(erb), O(bject), C(omplement), A(dverbial) are the terms which denote or describe the **functions** of the word groups that constitute the formation of the sentence.

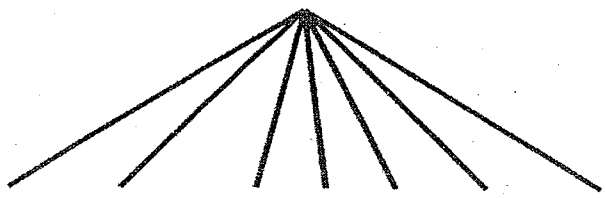
2. *Hierarchy*

Sentences are hierarchically structured, that is, they are not simply sequences of individual words but are made up of word groupings, which themselves may consist of lesser groupings.

Words are not necessarily the only constituents of sentences; there are also higher-level constituents that form sentences. This kind of hierarchical organization, like linearity, represents a more general strategy the mind uses to organize experience. In sentences, ***lesser elements are parts of larger wholes, which are in turn parts of yet larger wholes***. Things are easier to deal with if they can be placed within a larger frame, a part-to-whole strategy, or if they can be seen as consisting of distinguishable parts, a whole-to-part strategy.

Now think about the following sentence and look at the tree-style diagram below:

The government expelled the officers from Thailand.



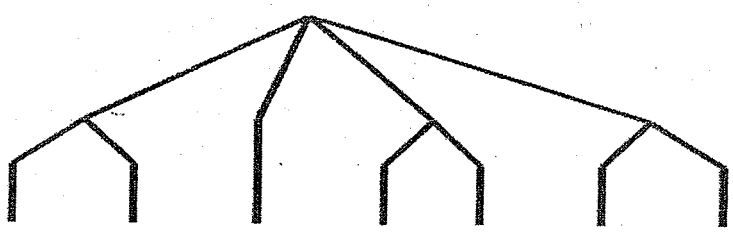
the government expelled the officers from Thailand

diagram 1

No two words in the diagram group together to form a higher-level constituent. Is this a correct reflection of sentence organization in English? Clearly not, since the lack of grouping fails to capture relationships that any native speaker of English can perceive.

English speakers know that the second *the* in the sentence is tied more closely to the noun *officers* than to the verb *expelled* that precedes it. The closeness of this tie is indicated by the fact that these two words, forming the phrase the *officers,* can be replaced with a single pronoun, *them.* In contrast, the words *expelled the* do not form a constituent phrase replaceable by any single word. The pair *the government* forms the same kind of phrase as *the officers.* Finally, the prepositions *from* is more closely tied to the word following, *Thailand,* than to *officers,* which precedes it. A more accurate representation of the structure of our sentence would show these higher-level constituents too.

Look now at the following hierarchical structure:



the government expelled the officers from Thailand

diagram 2

Note in Diagram 2 that the phrase *from Thailand* does not form a higher constituent grouping with the phrase *the officers*. The predicate *expel* here has one phrase indicating who was expelled and another indicating the place from which they were expelled. The object of *expelled* is *the officers*. There is evidence to support this constituent structure. First, the object can be replaced by a pronoun object, them:

The government expelled ***them*** *from Thailand.*

Since *them* replaces the original object, that object must have been just *the officers.* Second, the sentence has the following passive voice counterpart:

***The officers** were expelled from Thailand by the government.*

In the passive voice sentence the object noun phrase, *the officers,* has been shifted to the subject slot. The prepositional phrase has not been shifted.

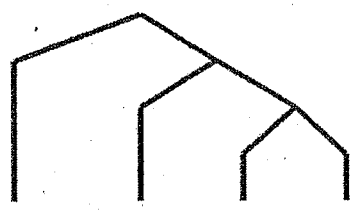
But note that the active voice sentence. *The government expelled the officers from Thailand,* has an alternative interpretation, one in which *from Thailand* does not indicate the place from which the officers were expelled but simply functions as further descriptive detail specifying *which* officers were expelled. Under this interpretation, *the officers from Thailand is* a constituent. It can therefore be replaced by the pronoun *them:*

*The government expelled **them.***

This interpretation corresponds to its own passive counterpart:

The officers from Thailand were expelled by the government.

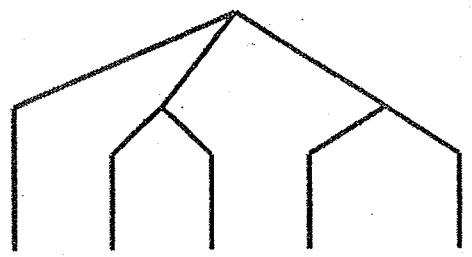
This time, the object noun phrase *the officers from Thailand* has been shifted to the subject slot. In this interpretation, the determiner *the* makes definite not just *officers* but the whole grouping *officers from Thailand.* So the sequence is a constituent whose structure can be shown like this:



the officers from Thailand

diagram 3

The constituents of *the officers from Thailand* together form a single higher-level constituent, that is, a phrase. On this interpretation, the constituent structure tree for the whole sentence must therefore show this constituent. The two interpretations of the sentence correspond to two distinct constituent structure trees. There is yet another higher-level constituent, one headed by a verb. Note that the verb *expelled* is a *transitive* verb, that is, it takes an object. In our example, what the object is depends on which interpretation is chosen. For the interpretation in which the prepositional phrase *from Thailand* is separate from *the officers,* only *the officers* is the object. The higher-level constituent to which these phrases belong, the verb phrase, is made up of three separate parts: *expelled, the officers,* and *from Thailand,* as this next diagram shows:

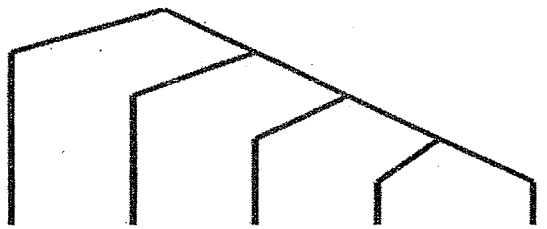


expelled the officers from Thailand

diagram 4

Even though *from Thailand* is an optional constituent, it is just as closely tied to *expelled* as is the obligatory constituent *the officers.*

For the second interpretation, in which the object is *the officers from Thailand,* the verb phrase is made up of two separate parts, *expelled* and *the officers from Thailand,* as the following tree diagram shows:



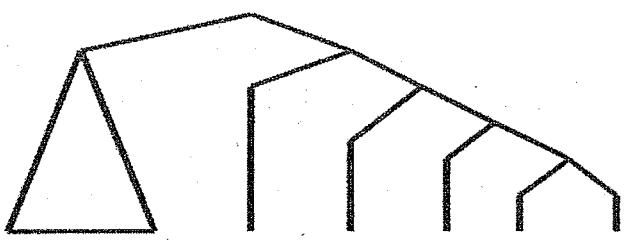
expelled the officers from Thailand

diagram 5

For both interpretations there is an obvious dependence between *expelled* and the object constituent that follows. The verb *expel* requires an object and also allows a prepositional phrase to indicate the place from which someone is expelled. This special grouping relation is quite different from a relation between verbs and their subjects. Verbs are not categorized according to whether or not they take subjects; any verb can have a subject. So the verb and the constituents following it form a higher-level constituent in a clause.

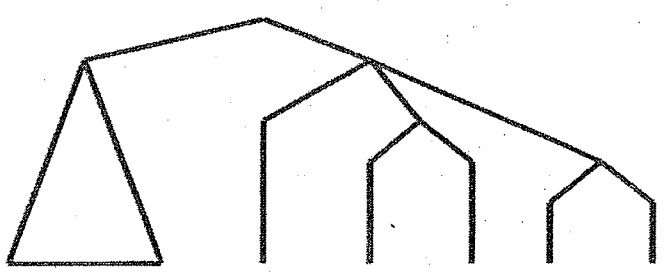
Note, however, that not all constituents following a verb are necessarily part of the verb phrase. Forms like *yesterday,* which can be shifted to other positions in the sentence, *Yesterday the government ...,* or, *The government yesterday ...* are outside the verb group.

Constituent structure trees can be revised to show the higher-level constituent as identified. Following are the revised constituent structure trees for the two interpretations. Which tree corresponds to which interpretation?



the government expelled the officers from Thailand

diagram 6



the government expelled the officers from Thailand

diagram 7

This analysis has demonstrated that the *linearity* property alone does not account for the relation between form and meaning in a sentence. The differences noted in *hierarchical* structure correspond to the differences between the two interpretations of the example sentence. A grammar of English that did not posit hierarchically organized constituents for

sentence structures would find it hard to account for the ambiguity of sentences such as *The government expelled the officers from Thailand.* The differences in the groupings of the forms match up with the differences in meaning.

So, a hierarchical structure in syntax is a multilevel structure in which each individual constituent at the lowest level belongs - either on its own or together with adjacent constituents - to a constituent at the next higher level, and further to the highest level, which, in sentence grammar, is the category *sentence.*

3. *Categoriality*

Sentences are made up of parts which belong to a set of distinct categories, each with its special characteristics.

Let's have another look at the sentence

The government expelled the officers from Thailand

The constituent structure trees studied so far represent (1) the linear ordering of the sentence and (2) native-speaker intuitions as to the hierarchical organization of the parts. But the trees fail to express crucial generalizations about sameness and difference. Certain constituents are of the *same* kind, and they are *different* from others.... A descriptive grammar must differentiate between items that are the same and those that are different. Words, and the larger constituents they make up, belong to a set of distinct categories, each with its special characteristics. This is the third general property of sentence structures, *categoriality.*

To show categorial distinctions on constituent structure trees, the words must be labeled appropriately. The bottom part of the trees could look like this (DET stands for determiner, words like *the, this, a,* while N stands for noun, V for verb, and P for preposition):

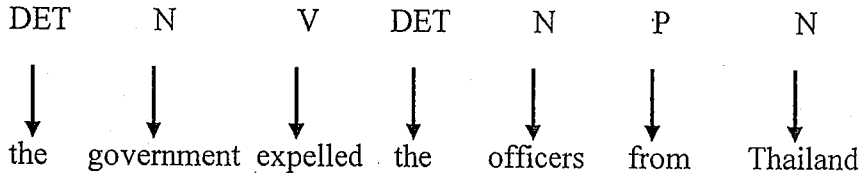


diagram 8

As we've already seen, the higher-level constituents - the phrases - also fall into categories, referred to as *phrasal categories.* For example, the two-word phrases *the government* and *the officer* clearly share enough properties to be included in a category. Both phrases have a noun as head, both can function as subject or object, and both can take a plural suffix. Since their head word is a noun (N), they are referred to as noun phrases (abbreviated NP). Now note that the noun *Thailand,* although a single word that doesn't normally take a plural suffix, shares not only key properties of the noun category but also distributional properties of noun phrases. *Thailand* has a noun as its head since it is the only word in the phrase. Moreover, it can function as subject or object and, like other noun phrases, can be replaced by a pronoun. It can be the object of a preposition like *from,* as other noun phrases can, and therefore can be considered to be a one-word noun phrase.

To go one step further in our example, the noun phrase *Thailand* is itself the object of a preposition, *from,* which is the head of the prepositional phrase *from Thailand.* The category prepositional phrase (PP) includes such phrases as *to Cortina, out of the village,* and *with her father.* The larger (mother) constituent to which both *expelled* and *the officers from Thailand* belong is *expelled the officers from Thailand.*

Like all the other phrase categories, except prepositional phrases, verb phrases (VP) can consist of just one word, for example, *resigned.* The sequence *expelled the officers from Thailand* is also a verb phrase, one organized around the transitive verb *expelled,* which is its head.

The sequence *fond of marshmallows* is organized around an *adjective,* the *word fond,* which requires a prepositional phrase like *of marshmallows* to follow it (and to be a sister of *fond* on a tree diagram). We can, however, substitute just an adjective for the *phrase fond of marshmallows.* Compare these next two examples:

*The scoutmaster was **fond of marshmallows.***

*The scoutmaster was **obstinate.***

The adjective *obstinate* is not only an adjective but an adjectival phrase (AP), just *as fond of marshmallows* is an adjectival phrase. It is also the head and only constituent of the adjectival phrase.

What exactly is a *head?* First and most important, the head of a phrase is the word around which the phrase is organized. .... Secondly, the category of the head is the category to which the phrase belongs. Thirdly, the head word is typically the semantic nucleus of the phrase. Single-word phrases, in which the word is also the whole phrase, consist of nothing but such a nucleus. Multiple-word phrases have other categories as constituents, and these constituents bear grammatical relations within the phrase. In fact, the notion *head* of a phrase is itself a grammatical relation, not a word or phrase category.

Let's return now to the sentence *The government expelled the officers from Thailand.* Constituent structures for the two interpretations of the sentence can now reflect categoriality as well as linearity and hierarchy. Just one of the alternative structures is shown here:

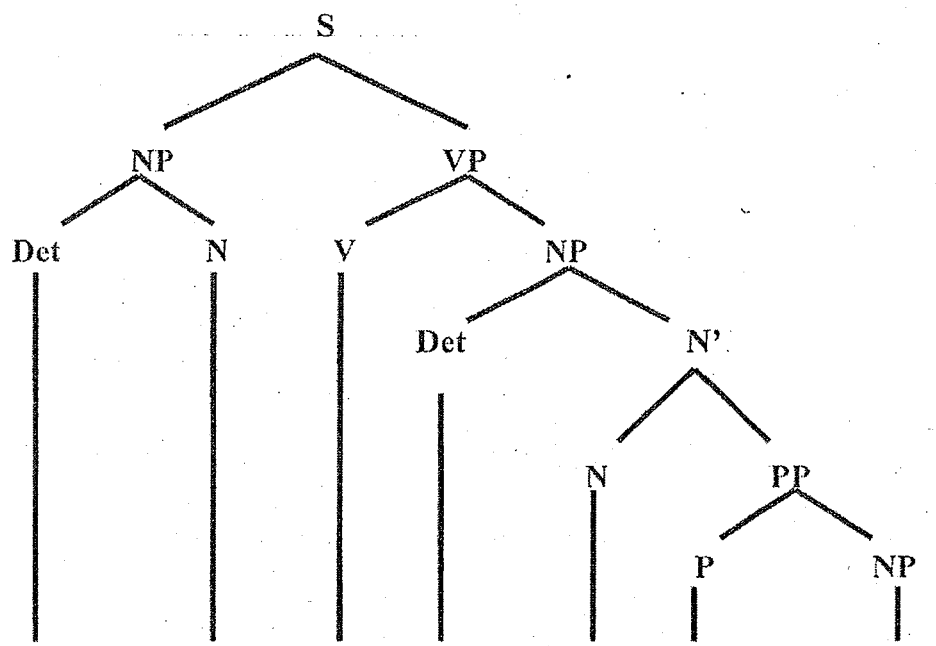


diagram 9

(Adapted from. Jacobs, R. A., 1995, p.p. 37-43)

III. Syntactic Relations

The grammatical relation between units or constituents within the structure of a sentence is describes as the syntactic relation of a sentence. The syntactic relations of sentences are classified into three major types: Subject - Predicate relation, coordination relation and subordination relation.

A clause forms a sentence on its own when it is not part of any other larger syntactic construction.

a. *She made a great mistake.*

b. *The film was quite interesting.*

c. *He didn't understand what the boss wanted him to do.*

There is a syntactic relation between the two constituents of a simple sentence - the relation between the constituent *She* and the constituent *made a great mistake* in sentence (a), between *The film* and *was quite interesting* in (b), as well as between *He* and *didn't understand what the boss wanted him to do*, is recognized as the **Subject-Predicate relation**.

The **Coordination relation** is the kind of syntactic relation in which two (or more) units or constituents of the same rank are joined together.

d. They love ***rock*** and ***rap***.

e. Shall we ***go home*** or ***go to see a movie***.

f. ***It rained*** but ***we went for a walk anyway***.

g. Either ***he is ill*** or ***he has forgotten the appointment.***

However, the relation between the underlined units in the above sentences is different from that of the followings:

h. They stayed behind ***because they they couldn't speak English***.

i. This is the horse ***that won the race***.

j. I knew ***that he was dying***.

k. We went to the pub ***to get some drink***.

The relation between the underlined units/constituents shows that one unit is subornitate to the other. In other words, this kind of relation is of ***superordinate - subordinate*** relationship, and, it is named ***subordination relation.***

The kind of subordination relation where the subordinate unit (a clause or a predicate phrase) is a constituent of, i.e. is embedded within, a larger structure - as *that he was dying* is embedded as object of the verb *knew* in the verb phrase 'knew that he was dying', or *to get some drink* as the complement of *went* in 'went to the pub to get some drink'. This kind of subordination relation makes up *another syntactic relation* which is called ***embedded relation.***

IV Classification of Sentences.

English sentences are classified according to the *mood category* of the sentence. The English sentences have two moods, which are based on the existence of the subject and finite operator. The ***indicative mood*** would give the ***Declarative*** and ***Interrogative sentences;*** the ***imperative mood***, the ***imperative sentences***.

Indicative mood →	declarative sentence	*We usually get up after 9 on weekends.*
		I don't like to sleep alone.
	interrogative sentence	*Can you make me a cambric shirt?*
		Don't you want to study abroad?
Imperative mood →	imperative sentence	*Go and get him back!*
		Don't move.

The ***exclamative sentences*** are only a subgroup of the declarative sentence as they have the two components of the mood element of the sentence: subject and finite operator.

How beautiful she is

Summary:

Sentence is the largest linguistic unit in grammar, herein, syntax. Sentence is an abstact unit, being defined as 'a string of words put together by the grammatical rules of a language'. A sentence can be simple or complex. It must not be included in any larger structure by any grammatical device. The structure of a sentence bears the characteristics of linearity, hierarchy and categoriality.

The syntactic relations found in sentences are subject - predicate relation, co-ordination relation, subordination relation and embedded relation. Sentences are also classified according to mood. The indicative mood gives out declarative and interrogative sentences. The imperative mood gives out imperative sentences, which is now called directive sentences by some modern linguists.

Questions and exercises

1. What are the 3 characteristics of sentences?
2. Which syntactic relations can be found in (English) sentences?
3. What are the three types of (English) sentences?
4. Which of the following sentences have coordination relation, subordination relation and embedded relation?
   a. The man went into the store to buy some food.
   b. She put the baby back and went out of the room quickly.
   c. Either you give me back my money or I will bring you to court.
   d. What I want to know is her whole life mistery.
   e. We will visit the place where the seaside has various colorful gravels.

CHAPTER 9

TYPES OF SENTENCES: THE SIMPLE SENTENCE

I. Different Types of Sentences.

Traditional grammars classify sentences as simple, compound or complex.

Liz prepared the food.

Liz prepared the food and Ed bought the wine.

Liz prepared the food that they had ordered.

In traditional grammar, sentences are classified into different *types* in two ways: first of all by **function**, as ***statements, questions, exclamations*** *and commands*; and secondly according to their **structural complexity**, as ***simple*** or ***compound. Complex*** sentences are made up of a number of simple sentences (which when incorporated as constituents of larger sentences are, by virtue of this fact, called *clauses).* Thus: *I saw him yesterday and I shall be seeing him again tomorrow* is a complex sentence. ***Complex sentences are divided into: (a) those in which the constituent clauses are grammatically co-ordinate, no one being dependent on the others, but all being, as it were, added together in sequence, with or without the so-called coordinating conjunctions (and, but, etc.)***; and ***(b) those in which one of the clauses (the 'main clause') is 'modified' by one or more subordinate clauses grammatically dependent upon it and generally introduced (in English) by a subordinating conjunction (if, when, etc.).*** Subordinate clauses are subdivided by function as nominal, adjectival, adverbial, etc.; and further as temporal, conditional, relative, etc. (...).

(Lyons, 1972: 178)

Clauses are constructions with one phrase constituent, typically a noun phrase, that bears the subject relation and another constituent, the verb phrase, bearing the predicate relation. This construction:

Clara delayed her graduation.

The subject of the clause is *Clara* and the verb phrase is *delayed her graduation.* This clause can stand on its own as a sentence, but could also be embedded inside another clause.

I heard (that) Clara delayed her graduation.

Notice that the ***embedded clause*** can be introduced with ***that.*** This introducing word, ***that,*** is known as the ***complementizer.*** The complementizer was optional in the above example, when the embedded clause was the object, but it can never be omitted when the embedded clause is subject of another clause:

That Clara delayed her graduation is unfortunate.

Clauses can be either ***finite*** *or* ***nonfinite.*** Finite clauses that have either modals or verbs indicating past or present tense. What are *nonfinite clauses* then? They are clauses in which the predicate phrase begins not with a present or past tense verb or a modal but with a ***to*** before the verb. The verb with to is often called an ***infinitive verb.*** Nonfinite clauses are like finite clauses in that they have a verb phrase and a subject, though the subject is sometimes understood rather than overt. Also like finite clauses, they *can* be introduced by a complementizer. But their complementizer is not ***that*** but ***for.*** Here is an example:

(for) Clara to delay her graduation.

The complementizer *for* enables us to embed this clause into a larger clause, as in these two examples:

For Clara to delay her graduation is unnecessary.

Mrs. Trowbridge was unwilling for Clara to delay her graduation.

This results in a viewpoint that classifies sentences into **simple** and **complex**, in which the latter is realized under coordination or subordination, or embedded relation.

Baby, I 'd love you to want me.

('*you to want me*' is a non-finite clause embedded in the super-ordinate clause which is the whole sentence.)

(adapted from Jacob, 1995: 49-50)

II. The Simple Sentence.

1. *Definition*

A simple sentence is a sentence that contains only one clause, a main clause.

'*Jack and Jill went up the hill.*' is a simple sentence; but, '*Jack and Jill went up the hill to fetch a pail of water.*' is not a simple sentence because it contain another non-finite subordinate clause - an adverbial clause of purpose: *to fetch a pail of water.*

An English simple sentence may be of one of the basic seven types described later in this chapter (*S V, S V O, S V C, S V A, S V Oi Od, S V O C,* and *S V O A*). The verb is considered the nucleus of the sentence.

1.1. Complementation:

The elements object (O), complement (C), and adverbial (A) in the patterns exemplified above are obligatory elements of the clause structure (structure of a simple sentence) in that they are required for the complementation of the verb. If we use a particular verb in the relevant sense, the sentence is incomplete (incorrect) when one of these elements is omitted:e.g: *That boy seems (*S V C* type) and *She put the baby (*S V O A* type) are unacceptable.

1.2. Syntactic characterization of sentence elements

The Verb: is always realized by a verb phrase. The verb determines what other elements may or must occur in the sentence.

The Subject: is typically a noun phrase (NP). The subject determines the number and person, where relevant, of the verb.

The Object: is typically a noun phrase (NP). The object normally follows the subject and the verb. The object may generally become the subject of the corresponding passive clause.

The Complement: is typically a noun phrase (NP) or an adjective phrase (AP). The complement normally follows the subject and the verb if it is a subject complement, and the direct object, if object complement.

The Adverbial: is normally an adverb phrase (AdvP), prepositional phrase (PP), or a clause (S), but can also be a noun phrase (NP). The adverbial is optional, except for the *SVA* and *SVOA* clause types.

2. *The Grammatical Structure of English simple sentences*

The English simple sentences can be described in views of constituents that form the sentences. Traditional grammars described the English sentences consisting of two parts:

S → ***Subject - Predicate***

Or, a sentence can be seen as comprising of FIVE elements which are Subject, Verb, Object, Complement and Adverbial.

S → *S V* (*O*) (*C*) (*A*)

The structure of an English simple sentence would fall into one of the following seven sentence patterns

(1)	SVA	S	V	A		Mary is in the house
(2)	SVC	S	V	C		Mary is kind / a nurse
(3)	SVO	S	V	O.d		Somebody caught the ball
(4)	SVOA	S	V	O.d	A	I put the plate on the table
(5)	SVOC	S	V	O.d	C.o	We have proved him wrong / a fool
(6)	SVOO	S	V	O.i	O.d	She gives me expensive presents
(7)	SV	S	V			The child laughed

(Quirk & Greenbaum 1973:167)

P.S grammar describes the structure of a simple sentence consisting of an NP and a VP: **S → NP VP.** When the clause is a dependent clause, the structure of the clause would start with these phrase markers: **S' → C S** (C stands for complementizer). The **C** unit introduces the following clause and joins it to the superordinate structure of the sentence.

3. *Thematic Role Assignment*

Depending on the degree or valency of the Verb and/or Predicate of a sentence, the noun phrases (NPs) have been classified in terms of the role they play in that sentence. Below are the thematic roles common in current linguistics descriptions assigned to NPs.

3.1 Thematic Role **Agent**

The agent is a ***mind-possessor*** who acts, usually intentionally.

Ex: **Nhung** has sent a thousand letters to her boyfriend.

3.2 Thematic Role **Instrument**

The instrument is the thing with which the action is done. The NP argument ***Penicillin*** is the instrument in the following example:

Ex: **Penicillin** killed the gram-positive bacteria.

3.3 Thematic Role **Theme**

The role of *theme* is the hardest to pin down. The broad definition of the role *theme* covers three somewhat different classes of theme.

- The first corresponds to a narrow definition. It is the role of the often inert entity, which is in a certain state or position or is changing its state or position:

The ball rolled down the slope.

Cavour rolled **the ball** down the slope.

- The second is the role assigned to clauses.

For Charlotte to outdo Branwell would shock that community.

Patrick believed **that Emily had the greatest talent.**

- The third class is that of affected mind-possessing entities. The term *patient* is sometimes used instead of the broader term theme. Patients undergo the action or process specified by their predicate and are affected by it.

A wealthy hunter killed **the Bengal tiger**.

The Bengal tiger died.

3.4 Thematic Role **Experiencer**

The experiencer is the one who experiences ***a mental state or process such as thinking, knowing, believing, understanding, seeing, hearing, fearing, hoping, being surprised,*** etc.

The trooper hoped for a promotion.

Montaigne's words inspired **the young poet**.

They will see a huge bronze gate between two pillars.

3.5 Thematic Roles **Source** and **Goal**

The term source refers to the location from which someone or something originates and the term goal to the location that serves or should serve as the destination.

The delegates left **Mexico City** (source) for **Buenos Aires** (goal).

The government (agent) took over a billion dollars (theme) from **the poor** (source).

3.6 Thematic Role **Benefactive**

The benefactive is the role of the individual for whose benefit some action is undertaken:

The chef baked **Jessica** a cherry pie.

In an active voice sentence, the benefactive is typically the *indirect object* or the *object* of ***for***.

3.7 Thematic Roles for Nonargument Noun Phrases

Noun phrases which are not arguments of predicates also have thematic roles. What can be said about, the roles of the boldface noun phrases in the following sentences?

The doctor's car was a Mercedes.

Moses waited for them on **the mountain**.

A truce will be declared for **two weeks**.

Last year the government divided the huge estates among the peasants.

The **bold words** in the above sentences have the thematic roles of location and time.

(adapted from Jacobs 1995: 23-26)

Summary

Sentences are classified into *simple sentences* and *complex sentences*. The latter is traditionally divided into *compound sentences* and *complex sentences*.

Simple sentence is the sentence that contains only one clause, a main clause. *Subject*, *verb*, *object*, *complement*, and *adverbial* are the syntactic elements of sentences. These elements form the seven basic simple sentence patterns/structures. PS grammar describes the structure of a sentence to consist of an *NP* and a *VP*: **S → NP VP**. The NPs has their own thematic roles in representing state of affairs in communication. These roles are describe under the name of *agent*, *theme* (*patient*), *experincer*, *instrument*, *benefactive*, *source*, *goal*, *time* and *location*.

Excercises:

Describe the thematic role of the underlined NPs below

1) Each year the economy gets worse.
2) Sarah Higgins annoyed me.
3) Neubauer killed the diseased cells.
4) The arrow killed the bear.
5) Binh loves Anh.
6) We removed the stones from the stove.
7) I'll give you your paper.
8) Everybody believed her.
9) An avalanche buried the climbers.
10) I'll fetch you an orange juice.

CHAPTER 10
TYPES OF SENTENCES: THE COMPLEX SENTENCE

I. Definition

Complex sentences are formed by joining a number of simple sentences together. Complex sentences are classified into two types. Those in which the constituent clauses are *co-ordinate,* there is no *main - dependent* construction within the sentence: no one being dependent on the others, but all being, as it were, of equal importance and can stand on their own. The clauses are added together in sequence, follow a logical order as required by the context, with or without the so-called coordinating conjunctions (*and, but,* etc.)

(a) *We fished all day; we didn't catch anything.*

(b) *We fish all day, but we didn't catch anything.*

(c) *He not only washed his motorbike but (also) polished it (as well / too).*

The other type of sentences, on the contrary, is formed by linking simple independent clauses together, but the constituent clause is not of equal importance. One is *subordinate* to the other.

(d) *Everybody knows* ***that money does not grow on trees.***

(e) *Holiday resorts* ***which are crowded*** *are not worth staying.*

(f) *Greenhorns changed completely* ***after he got married.***

The subordinate clause is also called embedded clause, however, there is a trend to view embedded clause as a subclass of subordinate clause. The structure of the subordinate clause, according to this view, is similar to that of simple sentences. Complex sentences consisting of main and subordinate clauses need not present problems for either production or comprehension.

Embedded clauses are different. They function semantically as arguments of predicates (i.e. the nominal units required by the predicator (either verb group, or noun group, or adjective group, or preposition) of the sentence. Since embedded clauses also contained predicates and arguments, problem can arise because the addressee must sort out which arguments go with which predicates.

It was alleged that two hostages had been ordered to pick up the money.

The above sentence shows that '*two hostages*' is in the position of the subject of the passive *order*, but is not the *orderer* in the action.

II. Complex sentences - *coordination relation.*

When clauses are linked in a relationship of equality, we say that the relationship is of coordination relation. Traditional grammar describes complex sentences bearing coordination relation ***compound sentences***. In the relationship of coordination, both or all clauses have the same syntactic status. In terms of semantics (meaning), the information presented in one clause is as important as that presented in the other or others.

Clauses in the sentences of this type are normally linked by a comma

I took of my jacket, searched the pockets, but couldn't find any money.

a semi-colon (as in sentence *a*), or by coordinating conjunction often preceded by a comma (as in sentence *b*).

The coordinating conjunction which can be used to form this type of sentence are *and, and then, but, for, nor, or, so, yet; either... or; neither ... nor, not only ... but (also/as well/too).* These can be used for the purpose of

- addition: Chris washed his car and polished it.
  We were talking and laughing.
- result: I've got a terribly fever, so I went to see a doctor.
  He fell heavily and broke his arm. (= so)
- condition: Clean the trash, and I'll pay you 50,000 d. (= if ... then)
- sequence: He finished his exam and fell down in a faint.
- contrast: Paul speaks English, but his wife speaks Japanese.
  Tom's 15 and still sucks his thumb. (despite this)
- choice: Work hard or you'll fail the exam.
- reason: The boy has to be street vendor, for his family is so poor.
- continuation: The man opened the door, and then

III. Complex sentences - *subordination relation & embedded relation.*

When clauses of unequal status are linked, we say that the relationship is one of subordination relation. In subordination relation sentences, one clause or more clauses are subordinated to another. The information in the subordinate clause is often presented as backgrounded or presupposed in relation to the information contained in the sentence. The clause which includes all subordinate clauses is called the main clause.

(a) *Danusa kept quiet* ***because she was afraid.***

(b) *This is the house* ***that/which was built of mud.***

compared with

(c) *Wanado knows* ***that Edgar loves Angela.***

the difference between (c) and (a) or (b) is that the clause *that Edgar loves Angela* is a must argument of the predicate *love*. To make a complete sentence with the predicate *love*, we must need an argument subject and an argument object. Thus, *that Edgar loves Angela* is called *embedded clause* of the complex sentence (c).

Since one of the categories of verbs is finite or nonfinite, subordinate (embedded) clause can be finite or nonfinite clause.

Wanado knows that Edgar loves Angela.	(finite)
Wanado knows ***what to do.***	(nonfinite)
We think the ghost appears at midnight.	(finite)
We want ***the ghost appear at midnight.***	(nonfinite)
We want ***to see the ghost at midnight.***	(nonfinite)

1. Types of Clauses

Finite	Nonfinite
1. Adverbial	1. Reduced Adverbial
2. Relative	2. Reduced Relative
3. Noun	3. Gerund
	4. Infinitive

2. Types of Finite Clauses

2.1 Adverbial Clause

Introducer: subordinating conjunctions

Function of introducer within adverbial clause: none

Function of adverbial clause within higher clause: modifier of verb; occasionally, modifier of adjective/adverb in a result clause (so X that . . .]

2.2 Relative Clause (Adjective Clause)

Introducer(s): wh-word ***who***, ***whom***, ***which***, ***whose***; complementizer ***that*** (may be omitted, except when subject); occasionally, when and where Function of wh-words within higher clause: common NP functions; when and where indicate adverbial functions Function of relative clause within higher clause: postmodifier of noun head

2.3 Noun Clause

Introducer: unstressed complementizer that (may be omitted); wh-word in indirect questions Function of introducer within noun clause: that - none; wh-word - common NP functions Function of noun clause within higher clause: common NP functions

3. *Types of Nonfinite Clauses*

Type	Subtypes	Function
1. Reduced Adverbial	Sub Conj + V_ing/V_en	Modifier of Verb
2. Gerund	simple V_ing	NP Range
	Poss + Ving	
3. Reduced Relative	simple with subject	Modifier of Noun
4. Infinitive	simple V	NP Range
	to+V	OR
	subject + to + V	Modifier of Verb
		OR
	for + subject + to + V	Modifier of Noun
	subject + V	

4. *Functions of Subordinate Clauses*

4.1 Clauses that function as modifiers of verbs (Adverbial Clauses)

Adverbial clauses are typically introduced by what have been traditionally called subordinating conjunctions and generally fulfill the same functions as AdvPs (...), indicating time, place, condition, cause, and purpose. They appear in the positions typical of AdvPs (initial, medial, and final). They're typically finite, but in some cases, they may be nonfinite. We provide examples of each of these types with their typical conjunctions. Note that nonfinite versions of adverbial clauses are elliptical versions of the fuller finite structures.

Time clauses

[a] *After you left the party*, things really began to swing.

[b] *As soon as the mailman came*, Terry ran to the door.

[c] *Before Reagan was elected*, there was more money for schools.

[d] *Since the shuttle crashed*, NASA has been demoralized.

[e] *While he was swinging on the creeper*, Tarzan emitted a blood-curdling yell.

[f] *While swinging on the creeper*, Tarzan emitted a blood-curdling yell. (Nonfinite)

[g] *When he was questioned by the police*, the suspect demanded to see his lawyers.

[h] *When questioned by the police*, the suspect demanded to see his lawyers. (Nonfinite)

[i] *Before you get into trouble*, quit.

[j] *Before getting into trouble*, quit. (Nonfinite)

Place clauses

[a] *Wherever you find cotton,* you will find the boll weevil.

[b] Double quotes should be used only *where they are appropriate.*

[c] Double quotes should be used only *where appropriate.* (Nonfinite)

Conditional clauses

[a] *If you understand this,* (then) you will be able to do the exercises.

[b] *Unless you understand this,* you will be unable to do the exercises.

Cause clauses

[a] *Because he hoped to elude his pursuers,* Fred continued his trek into the mountains.

[b] *Since/As funding is scarce,* research is hampered.

[c] *Being a clever fellow,* Fred was able to draw the correct conclusions. (Nonfinite)

[d] *Seated by the window,* the children could see everything that happened on the street. (Nonfinite)

Purpose clauses

[a] We packed food for six meals *so (that) we could stay out in the forest overnight.*

[b] Let us spend a few moments in silence *so that/in order that we remember those who died to preserve our freedom.*

Result clauses

[a] She was so stunned that *she couldn't speak.*

[bl The shooting star moved so quickly that *I almost missed it.*

Manner clauses

[a] Type this again *as I show you a moment ago.*

[b] This steak is cooked just *how/the way I like it.*

[c] I feel *as if/as though I'm floating on air.*

[d] He sounds *as if/as though he is badly injured.*

Reason clauses

[a] *As/Because/Since there was very little support,* the strike was not successful.

[b] Long is trying to find a new private room *because he wants to live independently.*

Concession clauses

[a] *Although/Though/Even though I felt sorry for him,* I was secretly pleased that he was having difficulties.

[b] We decided to travel by plane, *even if air fares go up again this year.*

[c] *No matter where you go,* you cannot escape from yourself.

[d] *However brilliant you are/may be,* you can't know everything.

4.2 Clauses that function in the nominal range (Noun Clauses)

The subordinate clause in a complex sentence may function as its direct object, subject, or indirect object, as the object of a preposition, or as a complement.

4.2.1 Clauses that function as direct objects

John claims he has earned his first million already.

We believe he exaggerates a great deal.

We prefer (for) everyone to get along well.

We all enjoy his visiting us.

4.2.2 Clauses that function as subjects

That students enjoy grammar proves my point.

That this may not work out upsets us.

That he fled will convince the jury of his guilt.

(For us) to leave now would upset everyone.

(Our) leaving now would upset everyone.

4.2.3 Clauses that function as indirect object

We gave whoever was there a French pastry.

4.2.4 Clauses that function as object of preposition

We gave the pastry to whoever would eat it.

We left the crumbs for whichever birds came by.

We slept in what we had worn all day.

4.2.5 Clauses that function as complements

+ Subject complement

The proposal is that we should teach language, not grammar

His suggestion is to leave at 3 A.M.

His hobby is making statues out of scrap metal.

+ Object complement

He dyes his hair whatever color his car is.

We consider Bill to be our great leader.

+ Complement of NP

The idea that the earth is flat has been disapproved.

The decision to launch has been postponed again.

The idea of the earth being flat is preposterous.

4.3 Clauses that function as modifiers of nouns *(*Relative clauses *and* Reduced relatives*)*

Relative clauses (also called adjective clauses) follow the head nouns they modify and may begin with either *that*, a *wh-word* such as *who* or *which*, a phrase with a wh-word in it, or no special word at all. Relative clauses must be divided into two types, **restrictive** and **nonrestrictive** (or **appositive**) relatives. In written English, appositive relatives are separated from their head noun by a comma and end with another comma. Restrictive relative aren't set off by commas. The presence or absence of commas reflects a semantic difference between these two types, although there are formal differences between them too, which we deal with below. We begin by illustrating some of the variety of restrictive relatives:

The man that we bought the boat from - *skipped town.*

The man who(m) we bought the boat from - *skipped town.*

The man from whom we bought the boat - *skipped town.*

The man we bought the boat from - *skipped town.*

The above *italicized* clauses are of the kind ***restrictive relative clauses.*** Restrictive relative clauses are interpreted as providing information necessary for identifying the referent of the entire NP. Another kind of relative clause, the **nonrestrictive** or **appositive**, only supplies extra information which isn't considered necessary to identify the referent on the NP:

Mr. Pickhurst, *who(m) we met last week*, has gone away.

I hit the brakes, *which caused the car to fishtail.*

- Nonfinite clauses function as relatives

  [a] The man *to see is Fred Limestone.*

  [b] The man *standing near the entrance is my father.*

The italicized are classified into the group of ***nonfinite clauses*** as the verbs are in their nonfinite form and their subjects are covert. Sentence [b] can be interpreted as **reduced relative clause** as it's an elliptical version of:

[c] The man *who is standing near the entrance is my father.*

Summary:

Complex sentences are classified into complex sentences with coordination relation, which is traditionally called compound sentences, and complex sentences with subordination relation and embedded relation, complex sentences. The embedded clauses would function as subject, object and complement in the sentence, and, formally, they are noun clauses. The subordinate clauses would function as modifiers and they are either adverb clauses or adjective (relative) clauses. Clauses could be finite or nonfinite depending on the form of the verb of the clause.

Exercises:

Identify the type of complex sentences of the following

1. Tom's 15 and still sucks his thumb.
2. The man who is standing near the big Christmas tree is my brother.
3. We prefer (for) everyone to get along well.
4. You will be unable to do the exercises unless you understand this section.
5. That he fled will convince the jury of his guilt.
6. When he was questioned by the police, the suspect demanded to see his lawyers
7. The boy has to be street vendor, for his family is so poor.

CHAPTER 11

TRANSFORMATIONAL GRAMMAR

I. Introduction

Transformational Grammar is a version of a larger set of different versions of Generative Grammar. Generative Grammar developed in the 1950s in the context of what came to be known as 'the cognitive revolution', which marked a shift to focusing on the mental processes underlying human behaviour from a mere concern with human behaviour for its own sake.

Initially, grammar was considered to consist of a set of Phrase Structure (PS) rules which generate Phrase Markers called Deep Structures (DS), and a set of transformational rules which perform various types of operations on these Phrase Markers to derive appropriately modified Phrase Markers called Surface Structures (SS). PS rules are 'rewrite' rules of basically two types. The 'context-free' type of the form X → Y, and the 'context-sensitive' type of the form X → WYZ, where W and Z represent the context. The former generate phrasal categories such NP, VP, S... etc., and the latter introduce lexical items into appropriate contexts in Phrase Markers. Transformations were largely construction-specific, so that there was a transformation for passives, a transformation for yes-no questions, and so on.

The developing theory went though successive stages with distinctive properties called the Standard Theory, the Extended Theory, Government and Binding Theory, the Principles and Parameters Theory and the Minimalist Program (or Minimalism). Each of these stages represented an improvement on the previous stage, where improvement is driven by the desire to achieve explanatory adequacy.

(adapted from Jamal Ouhalla 1999: 11-12)

II. Transformational Rules or Transformations

1. *Movement rules*

Although phrase structure rules interact with the set of complement options permitted by individual heads to form a very wide range of patterns, there are syntactic phenomena that they cannot describe in an entirely satisfactory way.

1.1 Subject - Auxiliary Inversion - SAI

To begin, let us consider the English *yes-no* questions exemplified in (1).

(1). a) Will the boy leave?

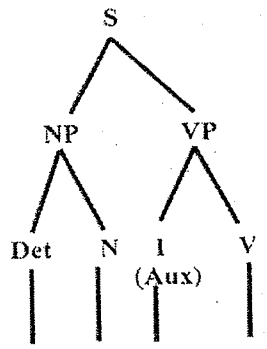
b) Can the cat climb this tree?

These sentences have an auxiliary verb to the left of the subject rather than in the specifier position of the VP, as in (2).

(2). a) The boy [will leave].

b) The cat [can climb this tree].

The question structures that we are considering are built in two steps. In the first step, the usual phrase structure rules are used to form a structure in which the Aux occupies its normal position within the VP. This allows us to express the fact that even in question structures it functions as a specifier, making more precise the meaning of the verb.



The second step in the formation of question structures requires a **transformation,** a special type of rule, a transformation known as **Inversion,** that moves the Aux from its position within the VP to a position to the left of the subject. This transformation is called **Subject-Auxiliary Inversion** (SAI)

--> Will the boy leave?

--> Can the cat climb this tree?

1.2 Wh-word Movement

Let's look at the interrogative sentence *What will the boy find?*

find is a transitive verb, which must be followed by an NP.

Suppose we have the sentence: The boy will find **what**?

By applying **Wh-word movement** & **Subject-Aux-Inversion** (transformations), we have the sentence ***What** will the boy find?*

The transformational rules that move the auxiliary verb and the Wh-word are specific examples of a general transformation rule 'move any constituent', or **move α (move alpha) rule**. For example, this rule may move constituents to the right called **postposing,** or to the left, called **preposing.**

Wh- movement only moves those phrases that contain a ***Wh-word.***

Wh- movement & **SAI** can occur separately, and so the application of one isn't dependent on the application of the other. **SAI** occurs alone in Yes-No interrogatives. **Wh-Movement** occurs alone in relative clause and indirect question.

Some of the other common T- rules

1.3 Deletion rule(s)

+ The Comp(lementizer) deletion transformation (example)

  You mean you didn't know (that) I knew she didn't know you knew that.

+ Verb Phrase Deletion — Yan can cook, and you can, too.

+ Imperative Subject Deletion — Close the door

  Wash the dishes.

1.4 Insertion rule(s)

+ There insertion — A unicorn is in the garden → There is a unicorn in the garden.

+ *-ing* insertion — She walked upstairs. She cried silently → She walked upstairs crying silently.

1.5 Passive Transformation

The dog bit him → He was bitten by the dog.

2. *Deep Structure and Surface Structure*

The transformational analysis claims that there are two levels of syntactic structure. The first, called *deep structure*. **Deep Structure** is generated by the PS Rules in accordance with the head's subcategorization properties (i.e. the first underlying structure to which a transformation applies). The second level of syntactic structure corresponds to the final syntactic form of the sentence which is called *surface structure*. Surface structure is the result of applying transformations to an underlying structure (D.S) when no further transformations apply.

In contrast, the statement pattern *The boy will leave* has a surface structure (final syntactic form) that looks just alike its deep structure since no transformations is applied.

The following diagram depicts the organization of the syntactic component of the grammar as it has just been outlined.

Phrase Structure Rules	S → NP VP [VP → V NP1 NP2]
↓	
DEEP STRUCTURE	[NP]My mother+[V] gave+[NP1]my sister+[NP2] a dictionary
↓	{move object NP1→ Subject position}
Transformations	{insert aux [past+be:was] :: give → given}
↓	{move Subject NP→ adverbial position after inserting prep. *by*}
SURFACE STRUCTURE	My sister was given a dictionary by my mother.

(adapted from O'Grady, W., M. Dobrovolsky, and M. Aronoff. 1993; 177-181)

3. *Kernel Sentences and Transformed Sentences*

A kernel clause forms a sentence on its own - i.e. it is not part of some larger syntactic construction. Thus it is neither subordinate to, nor coordinate with, some other clauses. ...: a kernel clause can accordingly contain a non-kernel clause within it.

a. A kernel clause is structural complete, not reduced by ellipsis.
b. A kernel clause is declarative, not imperative, interrogative or exclamative.
c. A kernel clause is positive, not negative.
d. A kernel clause is unmarked with respect to all the thematic system of the clause.

Thus in the following pairs, (i) is the kernel clause but (ii) is not

i) My father wrote the letter.
ii) The letter was written by my father.

i) They invited John.
ii) It was John that they invited.

i) Two policemen are at the door.
ii) There are two policemen at the door.

i) He has known her father for three years.
ii) Her father he has known for three years.

i) That he should be so late is annoying.
ii) It is annoying that he should be so late.

Summary:

Traditional Generative grammar aims to find out the mechanisms which account for the generation of the variety of sentences of a language out of a few kernel sentences. At the first stage of its development the representatives of TG gave a list of rules which covered up the derivation of sentences out of kernel sentences. These rules are called T-rules or transformational rules. At the second stage TG grammar introduced the notions of a deep and a surface structure for each sentence. Of these, the surface structure is the more complicated, based on one or more underlying abstract simple structures.

Exercises:

Present the operation of the following interrogative sentences

1. Are you going to Scarborough Fair?
2. Can you make me a cambric shirt?
3. Do you really want to hurt me?
4. Which station do you want to get off?
5. What have the workers done to the factory?

CHAPTER 12

THE GRAMMATICAL STRUCTURES OF THE ENGLISH SENTENCES - FUNCTIONAL GRAMMAR

(Extracted from Halliday's *An Introduction to Functional Grammar*, 1999)

Subject, Actor and Theme

One of the concepts that is basic to the Western tradition of grammatical analysis is that of Subject. Since this is a familiar term, let us take it as the starting point for investigating the functions in an English clause. Consider the clause:

The duke gave my aunt this teapot.

In accordance with the syntactic principles established by medieval grammarians,... the Subject would be *the duke.*

It is possible to conclude ... that 'Subject' is the label for a grammatical function of some kind. ... But it is not so easy to say exactly what this is; and it is difficult to find in the grammatical tradition a definitive account of what the role of Subject means. Instead, various interpretations have grown up around the Subject notion, ascribing to it a number of rather different functions. These resolve themselves into three broad definitions, which could be summarized as follows:

1 That which is the concern of the message

2 That which something is predicated

3 The doer of the action

When these different functions came to be recognized by grammarians as distinct, they were at first labeled as if they were three different **kinds** of Subject.

➔ 1 ***Psychological subject*** - Psychological Subject meant 'that which is the concern of the message'. It was called 'psychological' because it was what the speaker had in his mind to start with, when embarking on the production of the clause.

➔ 2 ***Grammatical subject*** - Grammatical Subject meant 'that of which something is predicated'. It was called 'grammatical' because at that time the construction of Subject and Predicate was thought of as a purely formal grammatical relationship; ...

➔ 3 ***Logical subject*** - Logical Subject meant 'doer of the action'. It was called 'logical' in the sense of 'having to do with relations between things'.

They are not three kinds of anything; they are three quite different things. The earlier labels will be replaced by separate ones which relate more specifically to the functions concerned:

Psychological Subject: Theme

Grammatical Subject: Subject

Logical Subject: Actor

(i) The Theme functions in the structure of the CLAUSE AS A MESSAGE. A clause has meaning as a message, a quantum of information; the Theme is the point of departure for the message. It is the element the speaker selects for 'grounding' what he is going on to say.

(ii) The Subject functions in the structure of the CLAUSE AS AN EXCHANGE. A clause has meaning as an exchange, a transaction between speaker and listener; the Subject is the warranty of the exchange. It is the element the speaker makes responsible for the validity of what he is saying.

(iii) The Actor functions in the structure of the CLAUSE AS A REPRESENTATION. A clause has meaning as a representation, a construal of some process in ongoing human

experience; the Actor is the active participant in that process. It is the element the speaker portrays as the one that does the deed.

These three headings - clause as a message, clause as an exchange, clause as a representation - refer to the three distinct kinds of meaning that are embodied in the structure of a clause. ... Theme, Subject and Actor do not occur as isolates; each occurs in association with other functions from the same strand of meaning.

A. CLAUSE AS MESSAGE

I. Theme and Rheme

The Theme is the element which serves as the point of departure of the message; it is that with which the clause is concerned. The remainder of the message, the part in which the Theme is developed, is ... the Rheme. As a message structure, therefore, a clause consists of a Theme accompanied by a Rheme; and the structure is expressed by the order - whatever is chosen as the Theme is put first. For examples of this Theme + Rheme structure

The Duke	has given my aunt that teapot.
My aunt	has been given that teapot by the Duke.
That teapot	the Duke has given to my aunt.
Theme	***Rheme***

As a general guide, the Theme can be identified as that element which comes in first position in the clause. We have already indicated that this is not how the category of Theme is defined. The definition is functional, as it is with all the elements in this interpretation of grammatical structure. The Theme is one element in a particular structural configuration which, taken as a whole, organizes the clause as a message; this is the configuration Theme + Rheme. A message consists of a Theme combined with a Rheme.

a halfpenny	is the smallest English coin.
the smallest English coin	is a halfpenny.

The Theme is not necessarily a NOMINAL GROUP, like those above. It may also be an ADVERBIAL GROUP or PREPOSITIONAL PHRASE.

Once upon a time	there was a tavern.
Very carefully	she put him back again.
For want of a nail	the shoe was lost.

II. Simple Themes of more than one group or phrase

As a first step we have made two assumptions: that the Theme of a clause consists of just **one structural element**, and that that element is represented by just **one unit** - one nominal group, adverbial group or prepositional phrase.

the Walrus and the Carpenter	were walking close at hand
Tom, Tom, the piper's son	stole a pig and away did run
from house to house	I went my way. (travel)
on the ground or in the air	small creatures live and breathe
Theme	***Rheme***

1. *Thematic Equative*

Theme = Rheme

What the Duke gave to my aunt was that teapot.

Theme ***Rheme***

2. *Theme in declarative clause*

- Theme conflated with subject: unmarked theme
- Theme that is something other than the subject: marked theme

3. *Themes in Exclamative clauses:*

	Wh- element as theme
How cheerfully	he seems to grin
What tremendously easy questions	you ask

4. *Themes in interrogative clauses:*

- In Yes-No question ***Theme is the Subject + Finite verbal operator***

  Are(n't) you lonesome tonight?

- In Wh- question ***Theme is the Wh- element***

  Who killed my parrot?

  How many kilometers to Hanoi ?

  With what shall I mend it?

5. *Theme in Imperative clauses*

Theme	
Answer	all the questions!
You kids	keep out of the way!
First	catch your fish!
Don't leave	any belongings on board the aircraft!
Don't let's	quarel about it!
Let's	not quarrel about it!
Don't let	me down!

B. CLAUSE AS EXCHANGE

Simultaneously, with its organization as a message, the clause is also organized as an interactive event involving speaker, or writer, and audience.

The fundamental types of speech role (...) are just two: giving and demanding.

- giving: giving something to the listener (# inviting to receive).
- demanding: demanding something from the listener (# inviting to give).

Kiss me.

Pass the salt, please.

Is today Saturday?

When language is used to exchange information, the clause takes on the form of a **proposition**, which is the semantic function of the clause. This refers to the speech function of questions and statements.

I. MOOD

The principal grammatical system of the clause is that of MOOD

The Mood Element and the Structure of the Mood

A: That very handsome boy has fallen in love with . . . . . .

B: Oh! Has he?

Yes, he has. / No, he hasn't.

I wish he had.

He hasn't, but he will.

The thing that is bandied about is called the MOOD.

The MOOD consists of 2 parts:

- the Subject, which is a nominal group.
- the Finite operator, which is part of the verbal group.

• Subject: nominal group = NP or pronoun

• Finite: operator expressing tense or modality

1) The presence of the Mood element, consisting of Subject plus Finite, realizes the feature 'indicative'.

2) Within the indicative, what is significant is the order of Subject and finite:

a) The order Subject before Finite realizes 'declarative';

b) The order Finite before Subject realizes 'yes-no interrogative;

c) In a 'Wh- interrogative' the order is:

(i) Subject before finite if the Wh- element is the subject;

(ii) Finite before subject otherwise.

In some cases, the Finite element and the lexical verb are fused into a single word:

love(s) (= present + love)

loved (= past + love)

past give

↑

Your aunt	(gave)	that teapot back	didn't	she
----------	-------		---------	------
Subject	***Finite***			

What the duke gave to my aunt was that teapot.

---------- ------

verb: simple present / simple past, active, positive and neutral.

The Mood → Subject + Finite (operator)

The remainder of the clause is called the **Residue**

II. The Residue

The Structure of the Residue

The Residue consists of functional elements of 3 kinds

- 1 Predicator; 1 or 2 Complements; and, up to 7 Adjuncts

• ***Predicator***

Predicator is realized by a verbal group minus the temporal or modal operator

was shining have been working may be going to be replaced

+ the predicator is non-finite

• ***Complement***

A complement is an element within the Residue that has the potential of being Subject but is not. It is typically realized by a nominal group.

Mary had a little lamb. (Its fleece was white as snow.)
past have complement
------- Residue -------

- ***Adjunct***

An Adjunct is an element that has not got the potential of being subject. It is typically realized by an adverbial group or a prepositional phrase.

My aunt was given that teapot yesterday by the duke.
---------- Residue ----------
...Com ... --- Ad --- ----- Ad -----

The typical order of Residue: Predicator ^ Complement ^ Adjunct

- Wh- interrogative

▫ Who killed Cock Robin (?)
'(past) kill'
Subject/Wh- *Finite* *Predicator* *Complement*
-- Mood ---------- ---------- Residue ----------

▫ Whose little boy are you (?)
Complement *Finite* *Subject*
---- Residue---- ---- Mood ----------

▫Where have all the flowers gone (?)
Adjunct *Finite* *Subject* *Predicator*
--- Mood ----------
--Residue-- ----------

▫What have the elephants done to the pier (?)
Complement *Finite* *Subject* *Predicator* *Adjunct*
-----Mood----------
------ Residue----------

- Exclamatives

How neatly he spreads his claws (!)
present spread
Adjunct *Subject* *Finite* *Predicator* *Complement*
--- Mood ----------
--- Residue ----------

C. CLAUSE AS REPRESENTATION

Usually when people talk about what a word or a sentence 'means', it is this kind of meaning they have in mind - meaning in the sense of content.

In section 2 we were looking at the clause from the point of view of its interpersonal function, the part it plays as a form of exchange between speaker and listener. In this section, by contrast, we shall be concerned with the clause in its experiential function, its guise as a way of representing patterns of experience. Language enables human beings to build a mental picture of reality, to make sense of what goes on around them and inside them. Here again the clause plays a central role, because it embodies a general principle for modeling experience - namely, the principle that reality is made up of processes.

What is the status of a process, as set up in the grammar of the clause? A Process consists, in principle, of 3 components

- The Process itself
- Participants in the process
- The circumstances associated in the process

Birds are flying in the sky.

These provide the frame of reference for interpreting our experience of what goes on.

The Process	is typically realized by	verbal group.
The Participant	is typically realized by	nominal group.
The Circumstance	is typically realized by	adverbial group or prepositional phrase.

The lion chased the tourist lazily through the bush.

Summary:

Functional Grammar focuses on the *communicative function* of language. The basic largest unit in grammar is *clause* (which is called sentence in previous types of grammar). A clause is considered to three aspects/sides at the same time: a *message*, an *exchange* and a *representation*. The structure of a clause as a message consists of a *theme* and a *rheme*; the structure of a clause as an exchange, *mood* and *residue*; and, the structure of a clause as a representation, *process*, *participant* and *circumstance*.

Exercise:

Analyze the structure of the following clauses, considering them in turn as ***message***, ***exchange*** and ***representation***

1. In 1876, Shaw joined his mother and sister in London.
2. On the upper floor of such premises, a tall person cannot stand erect.
3. Peter Piper picked a peck of pickled peppers.
4. Did you wake up late today?
5. Why did youke up late today?
6. Which direction will the birds fly to in this severe winter?

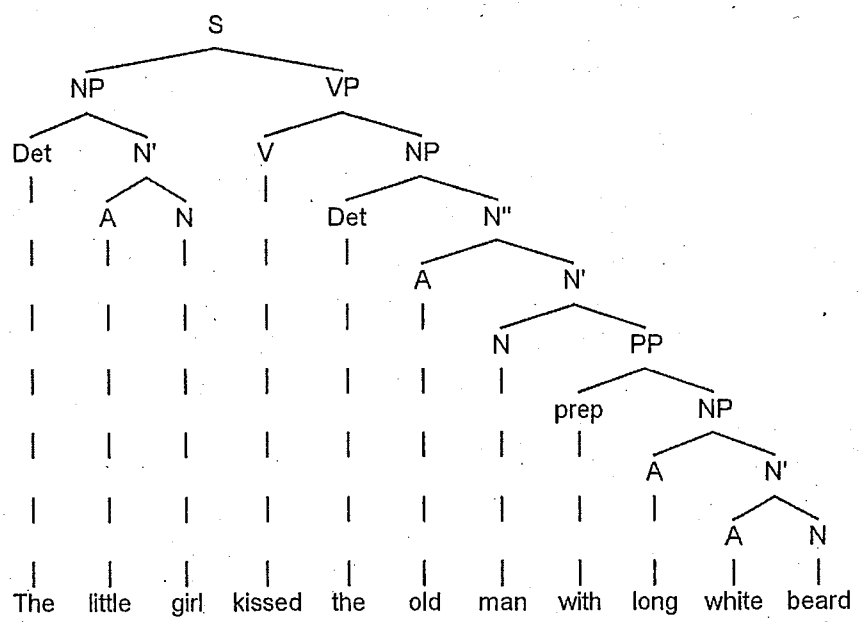
CHAPTER 13

ANALYZING THE STRUCTURES OF ENGLISH SENTENCES USING TREE DIAGRAM - SAMPLES

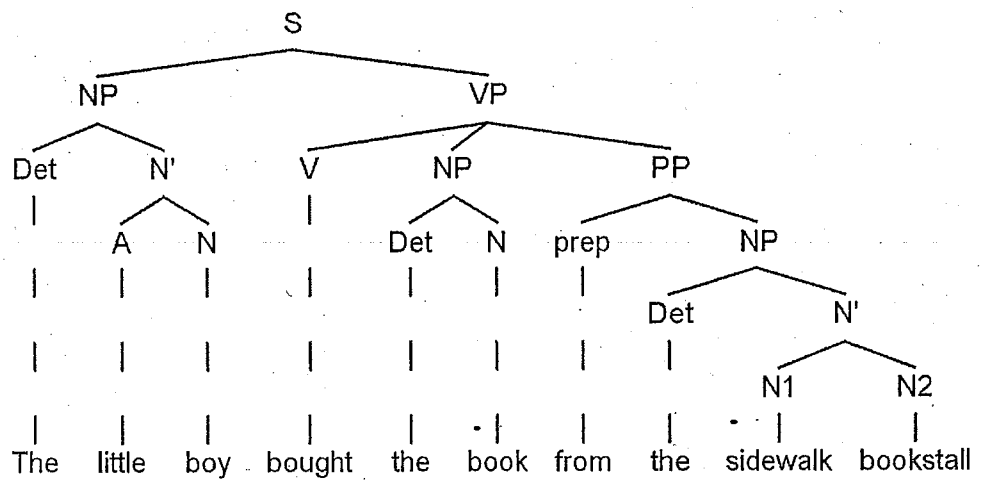
PS rules generate - make explicit - the structure of sentences. The following are samples of the structure of some typical English sentences. The structures are described using PS rules with X-bar theory.

1. *Simple declarative sentence.*

The little girl kissed the old man with long white beard.

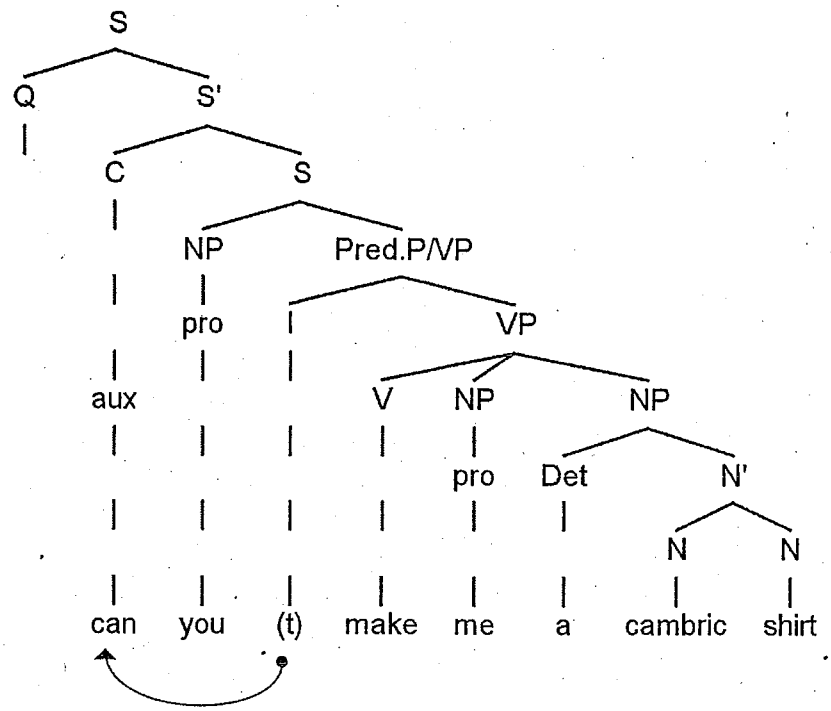


The little boy bought the book from a sidewalk bookstall.

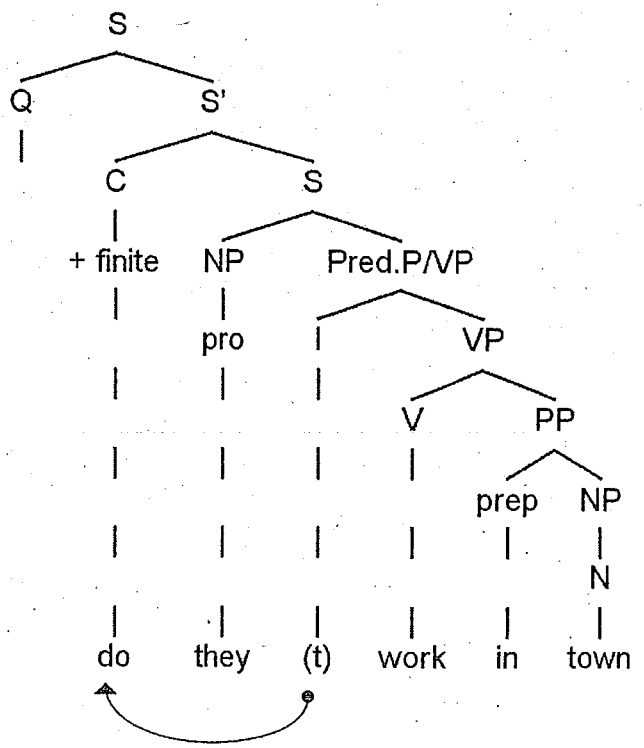


2. *Polar Question*

Can you make me a cambric shirt?

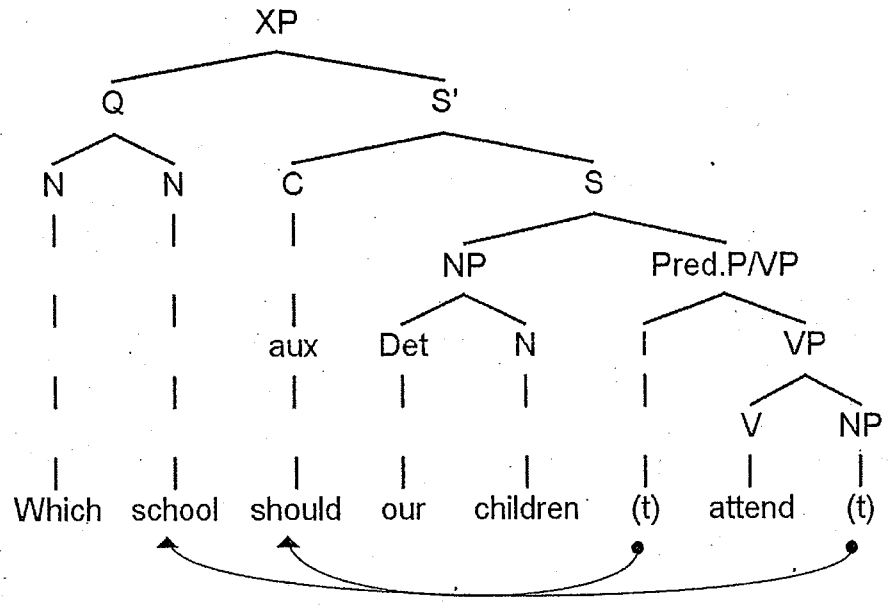


Do they work in town?

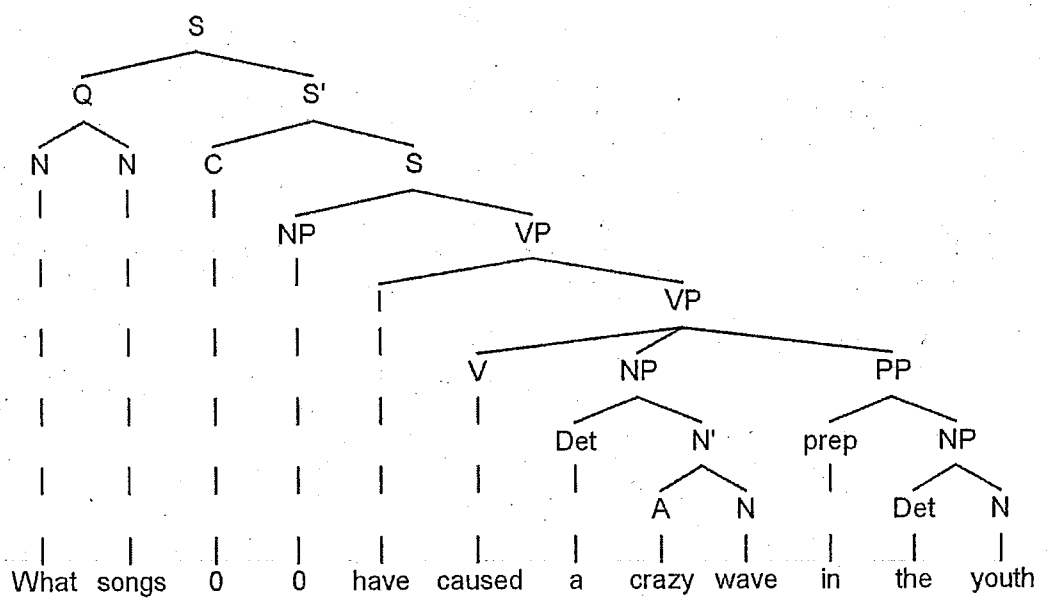


3 Wh- Question

Which school should our children attend?



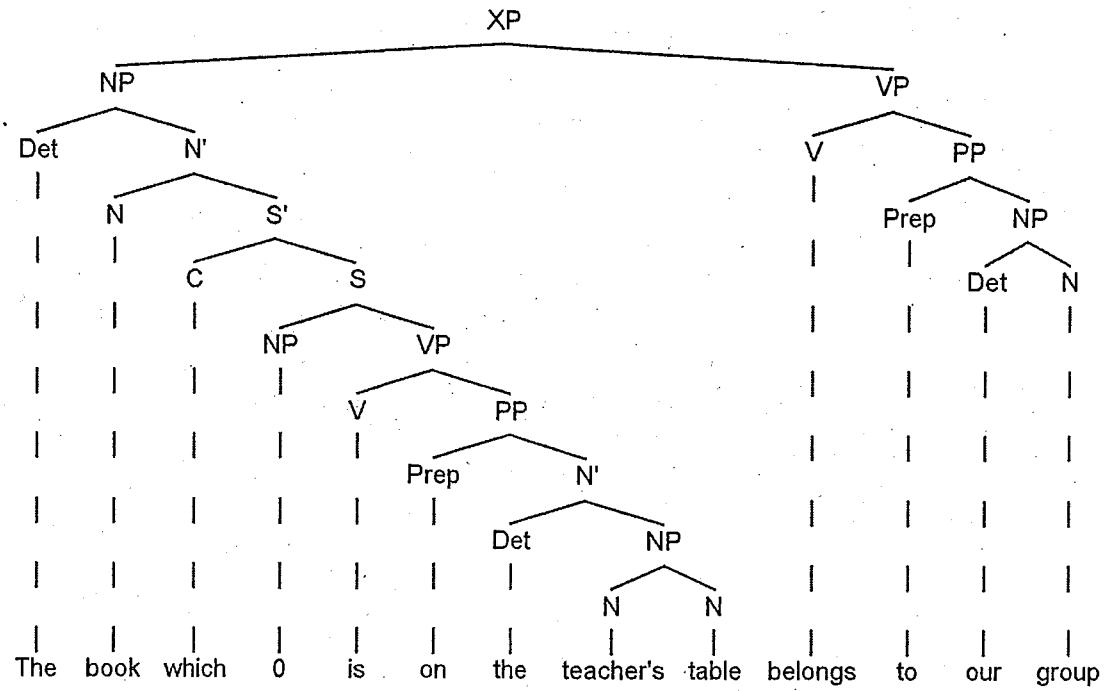
What songs have caused a crazy wave in the youth?



3 *Complex sentences*

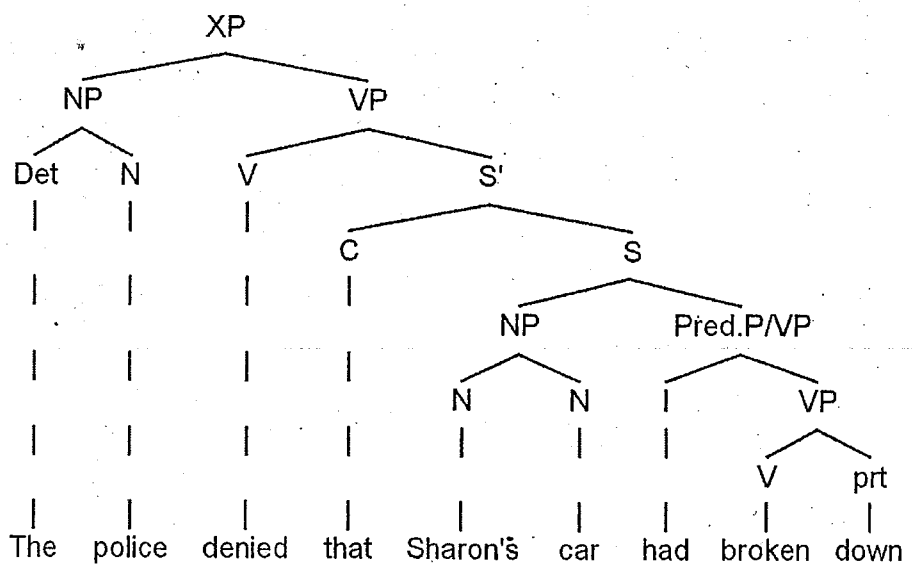
3.1 Complex sentences - Adjective/Relative Clause

The book which is on the teacher's table belongs to our group



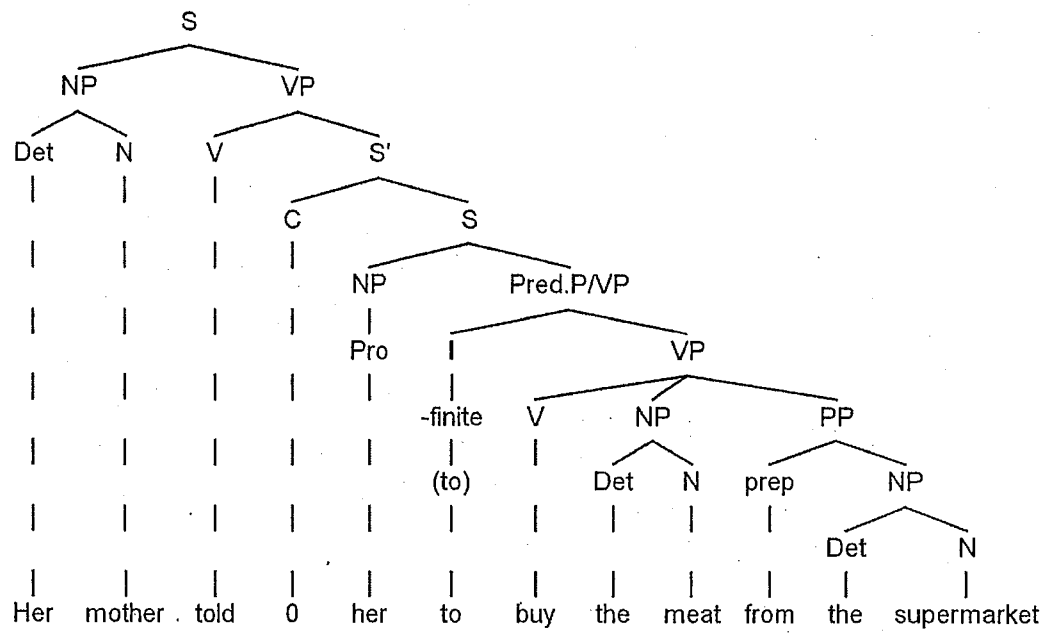
3.2 Complex sentence - embedded finite clause

The police denied that Sharon's car had broken down

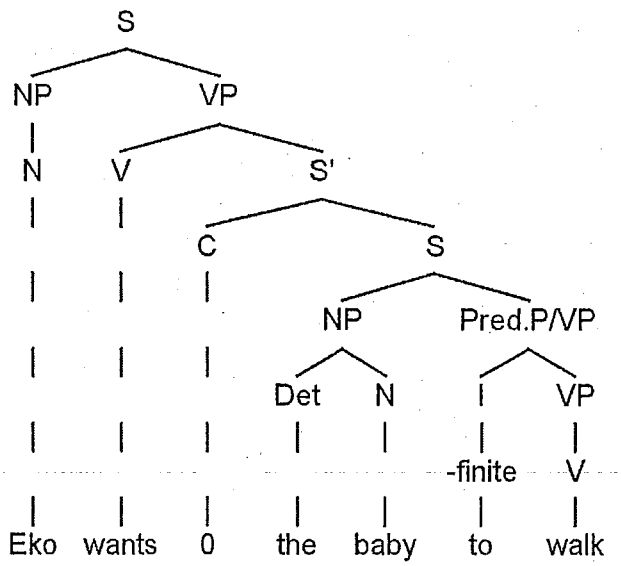


3.3 Complex sentences - embedded non-finite Clause

Her mother told her to buy the meat from the supermarket

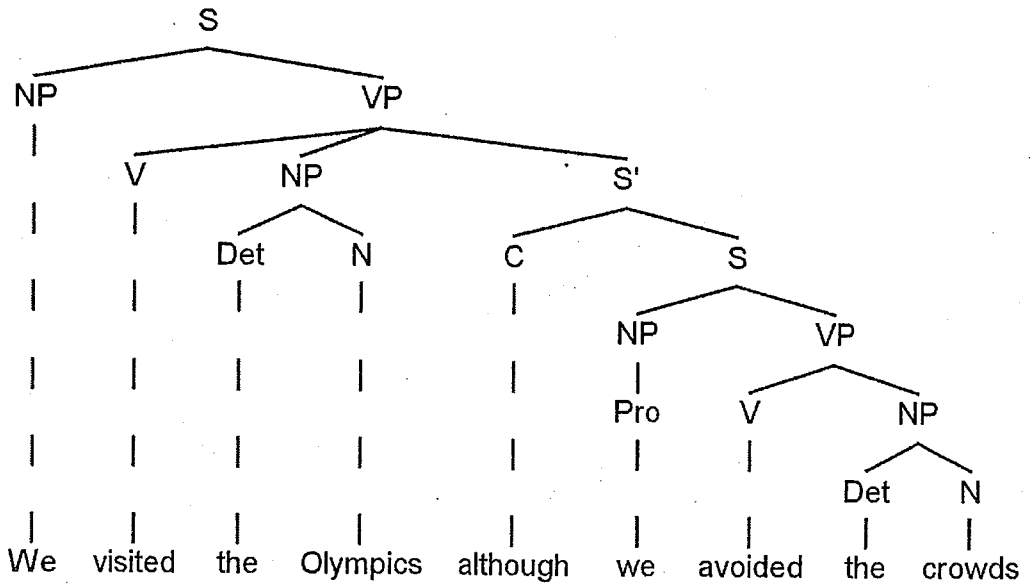


Eko wants the baby to walk

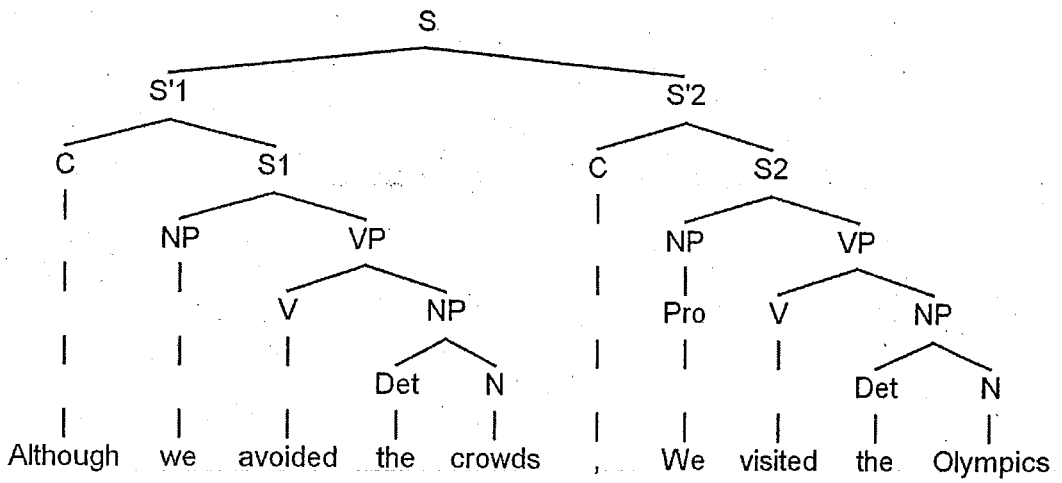


3.4 Complex sentences - subordinate Adv. Clause

We visited the olympics although we avoided the crowds.

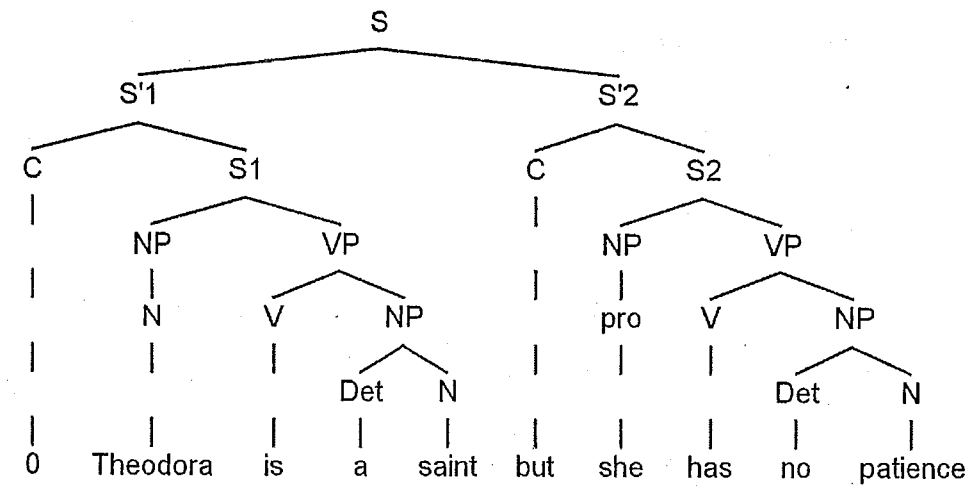


Although we avoided the crowds, we visited the olympics.

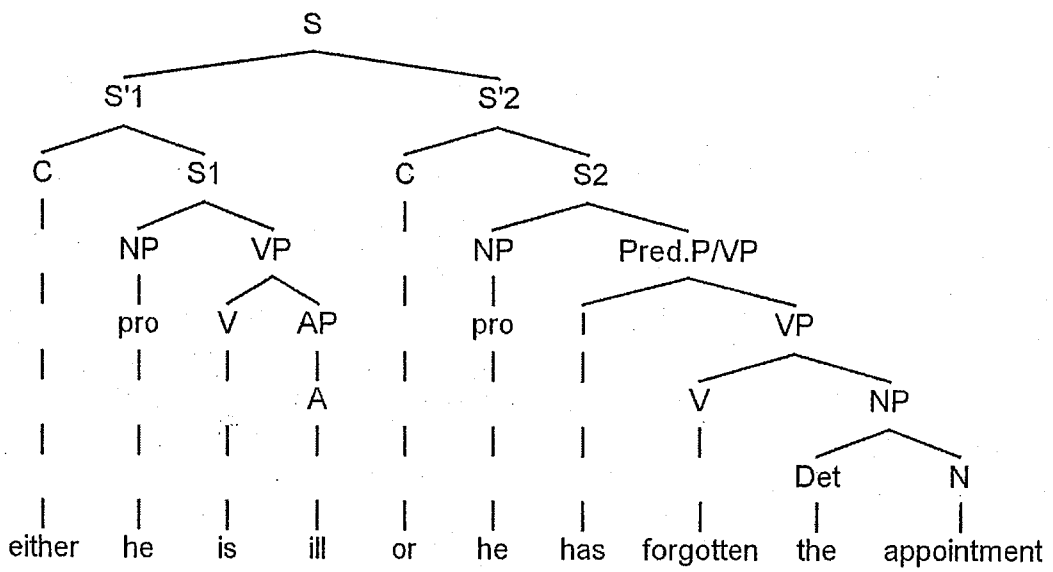


3.5 Complex sentence - coordinate clause

Theodora is a saint but she has no patience.



Either he is ill or he has forgotten the appointment



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