Start to Learn Syntax

An Introduction to the Structure of Language

Bejo Sutrisno, M.Pd

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Note to the readers

Start to Learn Syntax is mainly taken from Bickford, J. Albert. 1998. *Tools for Analyzing the World's Languages Morphology and Syntax*. Summer Institute of Linguistics, Inc. and it is compiled from some sources. It is intended to provide students with a structure, basic coverage of most of the topics dealt with in courses described as either '*Syntax*' or ' *The Structure of Language*'. Some of the materials of this book in each chapter is designed to encourage further practice or discussion.

Start to Learn Syntax provides basic information about the analysis and structure of languages and about the ways in which human beings use their languages to communicate with one another. That is what *Start to Learn Syntax* about, and how it should be defined.

Start to Learn Syntax is intended to serve as an introduction to linguistics to more advanced and more specialized material for those students who wish to continue the study of linguistics. It also provides a basic foundation in concepts and terminology for those students—particularly in education and the various service professions—who do not plan to be linguists but who feel that the ability to read linguistic literature related to their own field of expertise would be a useful skill. Finally, *Start to Learn Syntax* is written for those who have no specific professional goals, but who are simply interested in the subject.

1 September 2010

Bejo Sutrisno

Contents

Unit 1

What is Syntax?

- The word syntax is derived from a Greek word meaning 'arrangement'. It studies the ways in which words are arranged together in order to make larger units.
- The sentence is normally taken as the largest unit amenable to useful linguistic analysis.
- The main emphasis of this study will be on the level of language that examines how words combine into larger units, the phrase, the clause and the sentence.
- Different linguists, however, often define terms differently.
  - Structuralists would label 'sheep', 'that lovely sheep' and 'that sheep are unpredictable' as:

    sheep -word/free morpheme

    that lovely sheep -phrase

    that sheep are unpredictable -clause
  - Whereas transformationalists would call them all noun phrases.

- The structuralist one concentrates on the formal differences whereas transformationalists concentrate on the functional similarities in that all three can occur in the same slot:

  Sheep can be seen clearly

  That lovely sheep can be seen clearly

  That sheep are unpredictable can be seen clearly

1.1 The phrase

- A phrase is a group of words which functions as a unit and, with the exception of the verb phrase itself, does not contain a finite verb. Example:

  The little boy sat in the corner.

  We can replace 'the little boy' by 'he' and 'in the corner' by 'there'.
  A phrase does not contain a finite verb.

- A finite verb is one that can take as its subject a pronoun such as 'I', 'we', 'she', 'it', 'they'. Thus we can have:

  I see
  He sees
  They saw

  But not:

  I seeing
  He to see
  We seen

  And we can say that 'seeing', 'to see', 'seen' are non-finite verb. Only non-finite verb forms can occur in phrases:

  Bending low, he walked awkwardly into the small room.
  Seen from this angle, the mountains look blue.

- There are five commonly occurring types of phrases in English: noun phrases, adjective phrases, verb phrases, adverb phrases and preposition phrases.

1. **A noun phrase** is a group of words with a noun as its headword. There can be up to three noun phrases in a simple sentence, as the underlined units in the following simple sentences below:

   The young man threw the old dog a bone.
   That rich man will build his eldest daughter a fine house

2. **An adjective phrase** is a group of words which modifies a noun. Like adjectives, these words can be either attributive:

The child laughing happily, ran out of the house.
That utterly fascinating novel has been banned.

or predicative (that is following a verb):

The letter was unbelievably rude.
He seemed extremely pleasant.

3. **A verb phrase** is a group of words with a verb as headword. Verb phrases can be either finite:

He has been singing

or non-finite verb:

to have sung

4. **An adverb phrase** is a group words which functions like an adverb; it often plays the role of telling us when, where, why or how an event occurred:

We are expecting him to come next year.
He almost always arrives on time.
He ran very quickly.

5. **A preposition phrase** is a group of words that begins with a preposition:

He arrived by plane.
Do you know that man with the scar?
We are on very good terms.

- The number of modern linguists define a noun phrase, for example, as 'a word or group of words which can function as a subject, object or complement in a sentence':

  The young man came in/He came in.
  The young man defended his mother/ He defended her.
  The answer was '400 hours'/ The answer was this.

- Similarity, a verb phrase is a word or group of words which can function as a predicate in a sentence:

  He arrived at two. He will arrive at two.

1.2 The clause

A clause is a group of words which contains a finite verb but which cannot occur in isolation, that is a clause constitutes only part of a sentence.

1. **A noun clause** is a group of words containing a finite verb and functioned like a noun:

  He said that he was tired.
  What you said was not true.
  The fact that the earth moves round the sun is well known.

Noun clause can often be replaced by pronouns:

  He said this.

All the following possibilities are acceptable:

I shall always remember	John.
	him.
	his kindness.
	what John has done.

Thus, pronoun, nouns and noun phrases can usually be substituted for noun clauses.

2. **An adjective clause** is often called a 'relative clause' because it usually relates back to a noun whose meaning it modifies:

   The dog which won the competition is an Alsatian

   The man who taught my brother French is now the headmaster.

   The girl whom we met on holiday is coming to see us next week.

   Occasionally an adjective clause can begin with 'when':

   I remember the day when we won the cup.

   or 'where':

   the town where they met was called Scarborough.

3. **An adverbial clause** functions like an adverb in giving information about when, where, , how, or if an action occurred:

   When he arrived we were all sleeping.

   Put it where we can all see it.

   They won the match because they were the best players.

   He put it away as quietly as he could.

   If you want any more you'll have to get it yourself.

1.3 The sentence

A sentence is a group of words that can exist independently

1 Types of sentences:

Sentences can be divided into four sub types:

1 **Declarative sentences** make statements or assertions:

   I shall arrive at three.

   You are not the only applicant

   Peace has its victories.

   We must not forget that date.

2 **Imperative sentences** give orders, make requests and usually have no overt subject:

Come here.
Don't do that.
Try to help.
Don't walk on the grass.

3. **Interrogative sentences** ask questions:

Did you see your brother yesterday?
Can you hear that awful noise?
When did he arrive?
Why don't they play cricket here?

4. **Exclamatory sentences** are use to express surprise, alarm, indignation or a strong opinion.

He's going to win!
You can't be serious!
What a fool I was!

Sentences can also be classified as being either major (that can contain a finite verbs) or minor (which do not contain finite verbs). Minor sentences are frequently found in colloquial speech:

Got a match?
Not likely!
Just a minute!

Sentences can be distinguished between sentences which are 'simple', 'compound' or 'complex'.

Unit 2

The Sentence Patterns of Language

"I sing because I'm happy. I am happy because I sing."

- Knowing a language includes the ability to construct phrases out of morphemes and words. The part of the grammar that represents a speaker's knowledge of these structures and their formation is called syntax.
- Part of what we mean by structure is word order. As suggested by above cartoon, the meaning of a sentence depends to a great extent on the order in which words occur in a sentence.

  Athens defeated Sparta

  does not have the same meaning as

  Sparta defeated Athens.

  Sometimes, however, a change of word order has no effect on meaning.

  The Chief Justice swore in the new President.

  The Chief Justice swore the new President in.

2.1 Grammatical or ungrammatical?

- The syntactic rules of a grammar also account for the fact that even though the following sequence is made up of meaningful words, it has no meaning.

  Chief swore president the Justice the in new

- In English and in every language, every sentence is a sequence of words, but not every sequence of words is a sentence. Sequences of words that conform to the rules of syntax are said to be **well formed** or **grammatical** and those that violate the syntactic rules are therefore **ill formed** or **ungrammatical**.

2.2 What grammatically is based on?

Use your knowledge of English and place an asterisk (*) in front of the ones that strike you as peculiar or funny in some way.

(a) *The boy found the ball*
(b) *The boy found quickly*
(c) *The boy found in the house*
(d) *The boy found the ball in the house*
(e) *Disa slept the baby*
(f) *Disa slept soundly*
(g) *Zack believes Robert to be a gentleman*
(h) *Zack believes to be a gentleman*
(i) *Zack tries Robert to a gentleman*
(j) *Zack tries to be a gentleman*
(k) *Zack wants to be a gentleman*
(l) *Zack wants Robert to be a gentleman*
(m) *Jack and Jill ran up the hill*
(n) *Jack and Jill ran up the bill*
(o) *Jack and Jill ran the hill up*

(p) *Jack and Jill ran the bill up*
(q) *Up the hill ran Jack and Jill*
(r) *Up the bill ran Jack and Jill*

The speakers of English will "star" b, c, e, h, i, o, r. This shows that grammatically judgments are not ***idiosyncratic*** or ***capricious*** but are determined by rules that are shared by the speakers of a language.
The ***syntactic rules*** that account for the ability to make these judgments include, in addition to rules of word order, other constrains. For example:

- ✓ The rules specify that ***found*** must be followed directly by an expression like the ***ball*** but not ***quickly*** or ***in the house*** as illustrated in **a – d.**
- ✓ The verb ***sleep*** patterns differently than ***find*** in that it may be followed solely by a word like ***soundly*** but not by other kinds of phrases such as ***the baby*** as shown in **e and f**.
- ✓ Example **g – l** show that ***believe*** and ***try*** function in opposite fashion while ***want*** exhibit yet a third pattern.
- ✓ Finally, the word order rules that constrain phrases such as ***run up the hill*** differ from those concerning ***run up the bill*** as seen in **m – r**.

❖ Sentences are not random strings of words. Some strings of words that we can interpret are not sentences.

2.3 What else do you know about syntax?

❖ Syntactic knowledge goes beyond being able to decide which strings are grammatical and which are not. It accounts for the double meaning , or ambiguity. For example in 'synthetic buffalo hides' can be grouped in two ways:

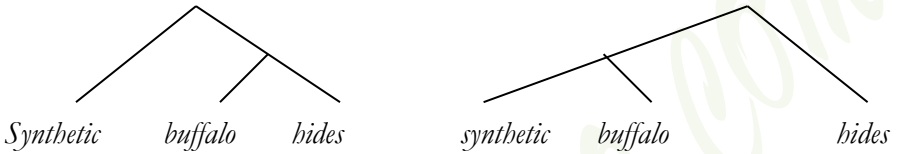
- ***synthetic buffalo hides*** which means "buffalo hides that are synthetic," or

"hides of synthetic buffalo."

Synthetic (buffalo hides) → We can get first meaning.

When we group like this:

(synthetic buffalo) hides → we get the second meaning.



- Syntactic knowledge also enables us to determine the grammatical relation in a sentence, such as subject and direct object, and how they are to be understood.
  (1) *Mary hired Bill*
  (2) *Bill hired Mary*
  (3) *Bill was hired by Mary*
  - ✓ In (1) ***Mary*** is the subject and is understood to be the employee.
  - ✓ In (2) ***Bill*** is the subject and ***Mary*** is the direct object, and as we would expect, the meaning changes so that we understand Bill to be Mary's employer.
  - ✓ In (3) the grammatical relationships are the same as in (2), but we understand it to have the same meaning as (1), despite the structural differences between (1) and (3).

- Syntactic rules permit speakers to produce and understand an unlimited number of sentences never produced or heard before, the creative aspect of language use.

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

1. the grammatically of sentences
2. word order
3. structural ambiguity
4. grammatical relations
5. whether different structures have differing meanings or the same meaning
6. the creative aspect of language

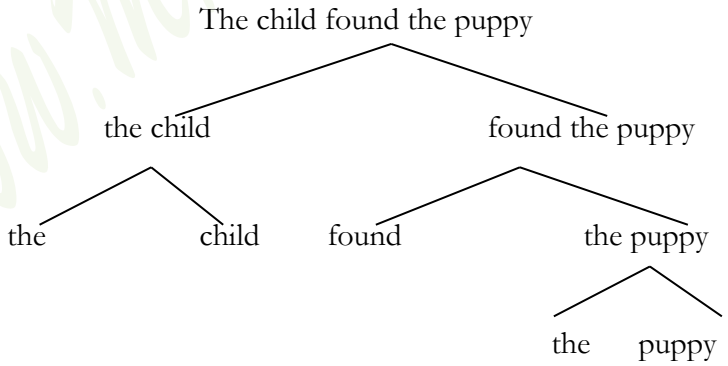
❖ A major goal of linguistic is to show clearly and explicitly how syntactic rules account for this knowledge.

2.4 Sentence structure

❖ Syntactic rules determine the order of words in a sentence, and how the words are grouped. The words in the sentence

The child found the puppy

May be grouped into (the child) and (found the puppy), corresponding to the subject and predicate of the sentence. It is easier to see the parts and subparts of the sentence in a tree diagram:

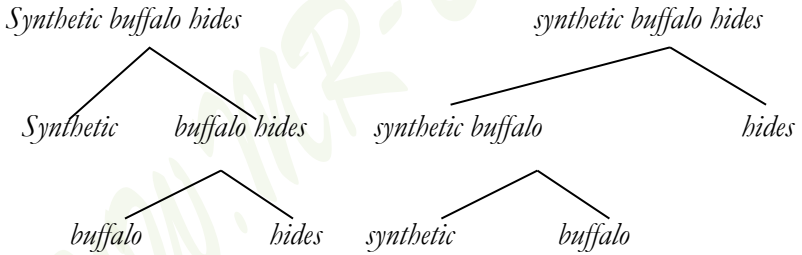


❖ Other sentences with the same meaning as the original sentence can be formed; for example:

It was the puppy the child found
The puppy was found by the child

and in all such arrangements ***the puppy*** remains intact. ***Found the*** does not remain intact, nor can the sentence be changed by moving ***found the*** around. All these facts show that ***the puppy*** is a natural structure whereas ***found the*** is not.

❖ Only one tree representation consistent with an English speaker's syntactic knowledge can be drawn for the sentence ***the child found the puppy***. But the phrase ***synthetic buffalo hides*** has two such trees, one for each of its two meanings:



Part of the syntactic component of a grammar is the specification of the syntactic categories in the language, since this constitutes part of speaker's knowledge. That is, speaker's of English know that item **a, b, c, f, g** and **i** in (2) are ***Noun Phrases*** even if they have never heard the term before.

(2) (a) *bird*
(b) the red banjo

(c) have a nice day
(d) with a balloon
(e) the woman who was laughing
(f) it
(g) John
(h) Went
(i) That the earth is round

You can test this claim by inserting each expression into the context Who discovered _____ ?" and " _____ was seen by everyone."
Only those sentences in which NPs are inserted are grammatical, because only NPs can function as ***subjects*** or ***objects.***

- There are other syntactic categories. The expression found the puppy is a ***verb Phrase*** (VP). In (3), the Verb Phrases are those that can complete the sentence "The child _____ "

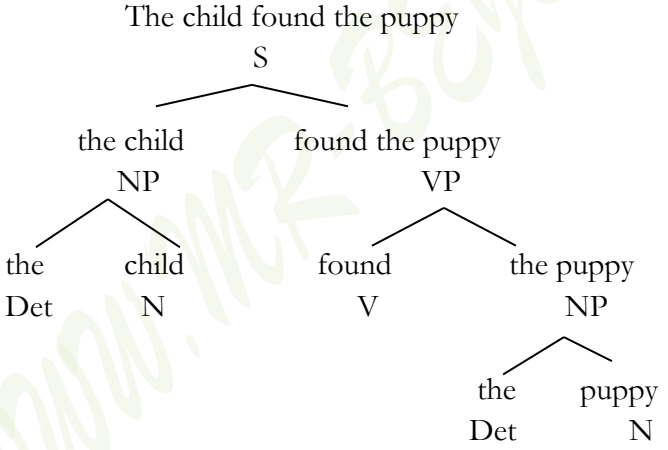
  (3) (a) saw a clown
  (b) a bird
  (c) slept
  (d) smart
  (e) smart
  (f) found the cake
  (g) found the cake in the cupboard
  (h) realized that the earth was round

- Inserting **a, c, e, f, g** and **h** will produce grammatical sentences whereas the insertion of **b** or **d** would result in an ungrammatical string. Thus **a, c, e, f, g** and **h** are ***Verb Phrase***.
- Other syntactic categories are ***Sentence*** (S), ***Determiner*** (Det), ***Adjective*** (Adj), ***Noun*** (N), ***Pronoun*** (Pro), ***Preposition*** (P), ***Prepositional Phrase*** (PP), ***Adverb*** (Adv), ***Auxiliary*** (Aux), and ***Verb***

(V). some of these categories have been traditionally called "***parts of speech***"

2.5 Phrase Structure Trees

❖ The fact that *The child found the puppy* belongs to the syntactic category of Sentence, that *the child* and *the puppy* are Noun Phrases, that *found the puppy* is a Verb Phrase,, and so on, can be illustrated in a tree diagram by supplying the name of the syntactic category of each word grouping. These names are often referred to as **syntactic labels**.

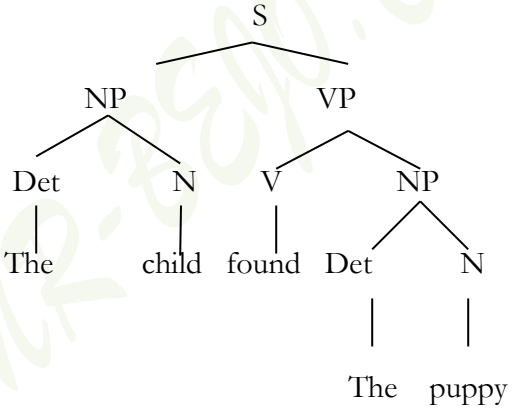


A tree diagram with syntactic category information provided is called a phrase structure tree. Three aspects of speakers' syntactic knowledge of sentence structure are disclosed in phrase structure trees:

1. the linear order of the words in the sentence,
2. the grouping of words into particular syntactic categories,

3. the hierarchical structure of the syntactic categories (e.g. a Sentence is composed of a Noun Phrase followed by a Noun Phrase followed by a Verb Phrase, a Verb Phrase is composed of a Verb that may be followed by a Noun Phrase, and do on).

The phrase structure tree above is correct, but it is redundant. The word child is repeated three times in the tree, puppy is repeated four times, and so on. We can stream line the tree by writing the words only once at the bottom of the diagram.

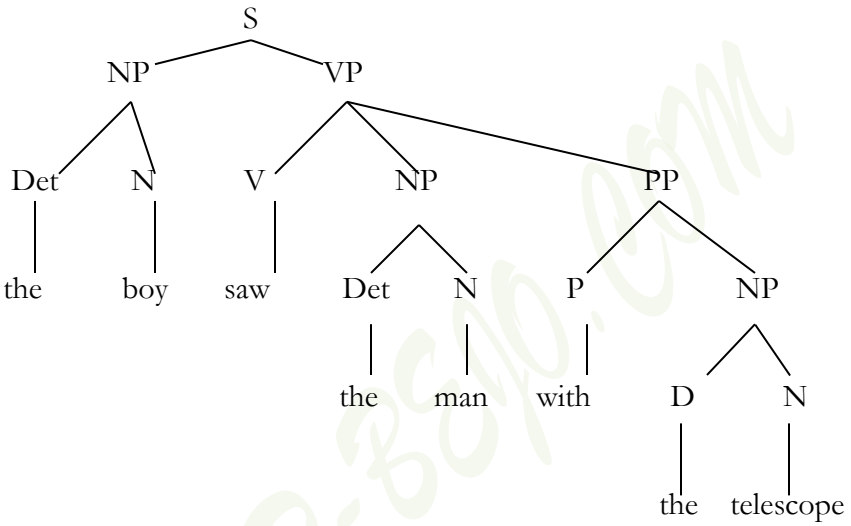


2.6 More Phrase Structure trees

❖ Every language contains sentences of varying phrase structure. The phrase structure tree below differs from the previous tree not only in

the words that terminate it but also in its syntactic categories and structure.

- This tree shows that a Verb Phrase may also consist of a Verb followed by a Noun Phrase followed by a Prepositional Phrase (PP).



UNIT 3

Constituent Structure, Syntactic Categories, and Grammatical Relations

3.1 Constituents and constituent structure

❖ The fundamental concept of this chapter is that sentences are not just strings of words, but have a more complex structure, which linguists call **Constituent Structure.**

Consider the following sentence:

(1) ***John angered Mary***.
It consists of three words, two nouns and separated by a verb.

(2) ***The big dog angered the cat***.
It contains six words. Three words, the big dog, seem to play the same role in (2) that one word, John plays in (1).

(3) ***[The big dog] angered [the cat]***
It has three chunks , even though it has a different number of words. Chunks of linguistic material like those enclosed in bracket (3) are called CONSTITUENTS. The hierarchical structure of sentences and other utterances is called CONSTITUENT STRUCTURE.

❖ The basic organization of (3) is not a string of six words, but a rather a string of three constituents.

3.2 Syntactic categories

❖ We can also scramble things a bit and produce other sentences that are parallel to (2) and (3)

(4) ***The cat angered John.***
Mary angered the big dog.

John, Mary, the big dog, and ***the cat*** are the same type of constituents, since they are Mutually Substitutable for each other. This type of constituent is traditionally called a NOUN PHRASE (NP). To show the noun phrse in a sentence, we can label the brackets.

(5) [**NP** ***The big dog***] ***angered*** [**NP** ***the cat***]

Here are some other noun phrases in English.

(6) ***many people***
two big, bad bullies
Arthur and his brother
A shy entelope

❖ ***A***rticles such as ***the, a,*** and ***an***, as well as **demonstrative** such as ***this*** and ***that*** form another syntactic category, and can be formed in a noun phrase.

(7) ***the old man***
an old man
this old man

With these additional syntactic categories, we can add more labeled brackets and identify all the constituents in (5).

(8) [**S** [**NP** [**D** ***The***] [**A** ***big***] [**N** ***dog***]] [**VP** [**V** ***angered***] [**NP** [**D** ***the***] [**N** ***cat***]]]]

Bracketed this way, it is clear that certain strings in this sentence are not constituents, *big dog* is not a constituent, because it is not complete. *The big dog angered* is not a constituent, because it has too many words to be a noun phrase and not enough to be a clause. For a string of words to be a constituent, there must be a matched pair of bracket s that encloses the entire string and nothing but the string.

We can say, *the, big, dog* are each CONSTITUENTS OF the first NP and *the* and *cat* are each constituents of the second NP. Also, the verb and the second NP are constituents of the VP. The only two constituents of the clause are the first NP and the VP.

3.3 Comparing syntax and morphology

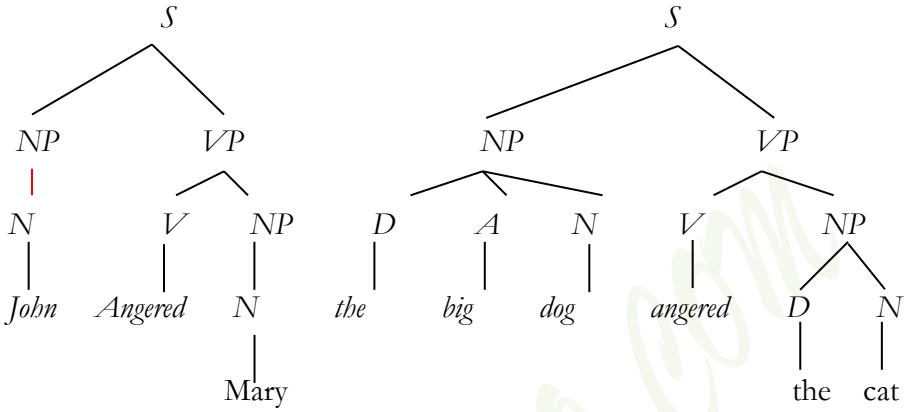
Syntactic categories differ in size and expandability; some are OPEN CLASSES and some ore CLOSED CLASSES. Most syntactic categories, like N and V, are open classes, since new nouns and verbs can be added freely to vocabulary.

There is also correlation between the openness of a class and the meaning of its members. Open classes like nouns almost always have LEXICAL MEANING, while closed classes like determiners usually have GRAMMATICAL MEANING. The members are MUTUALLY SUBSTITUTABLE for each other.

3.4 Trees

- As we have seen, sentences are not just strings of words. Words combine to make larger constituents called phrases, phrases combine to make larger constituents called clauses, and so forth. A convenient device for displaying the constituents structure is called a TREE or TREE DIAGRAM.

(9) a. b.



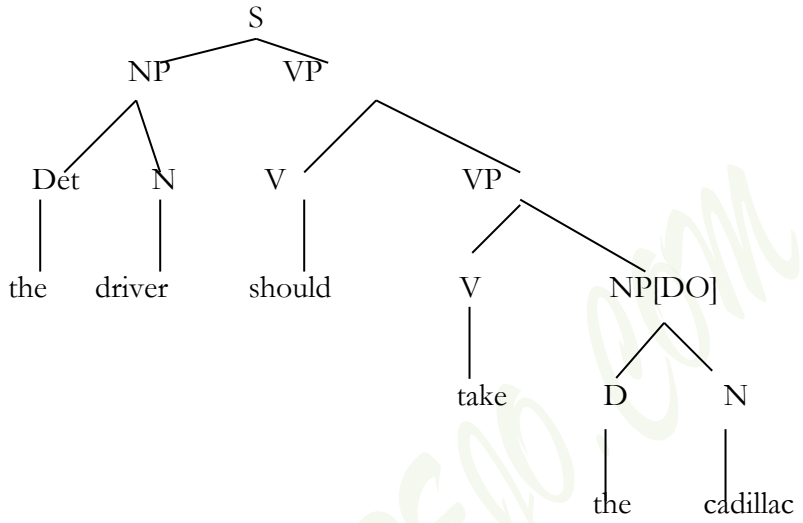
❖ The lines in the trees are called BRANCHES, and the labeled places at the end of the lines are called NODES. The topmost node on a tree is often called the ROOT node; the root nodes in the tree in (9) are labeled S. The bottommost nodes are called LEAVES or TERMINAL NODES; they are labeled with specific words like ***the*** and ***angered***.

3. 5 Auxiliary verbs

❖ Many languages have a subclass of verbs called **AUXILIARY VERBS** or **AUXILIARIES**. Examples in English include words like *should, have,* and *be*, which are used in combination with other verbs and that contains another VP embedded inside it.

❖ What is special about an auxiliary verb is that it requires a second VP to be present in the tree, just like a transitive verb requires a direct object to be present. In other words, auxiliaries subcategorize for VPs. In (10), the VP *take the Cadillac* occurs alongside the auxiliary *should*, thus satisfying its subcategorization requirement. It is this second VP that contains the 'main' verb.

(10)



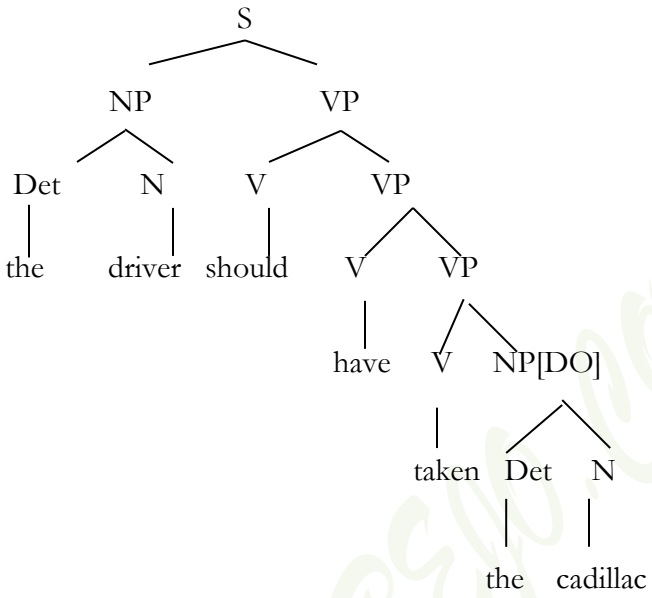
- Auxiliary verbs require just a few modifications to our formal grammar. First, the phrase structure rule for VP must allow for the possibility of one VP embedded inside another one.

- Auxiliary verbs require just a few modifications to our formal grammar. First the phrase structure rule for VP must allow for the possibility of one VP embedded inside another one.

(11) VP V (NP[DO]) (VP) (PP[IO])

As in other cases of embedding, this rule correctly allows for chains of VPs involving two or more auxiliaries.

(12



3.6 Review of key terms

- One basic ability of a speaker of a language is the ability to judge whether utterances are **GRAMMATICAL**. Part of this ability consists in recognizing that sentence structure is **HIERARCHICAL**; it is not just strings of words. Words are grouped into phrases, phrases into clauses, and clauses into larger units like sentences and paragraphs. Each of these groups of material are called **CONSTITUENTS**, and all the constituents of a sentence taken to gather comprise its **CONSTITUENTS STRUCTURE**.

- The constituent structure of a sentence can be represented in two ways, with **LABELED BRACKETS** and with **TREES**. Trees consist of a set of **NODES** connected by **BRANCHES**. Different types of nodes include **ROOT NODES, TERMINAL NODES, PRETERMINAL NODES**, and **NON TERMINAL NODES**.

UNIT 4

Nonactive Complements

4.1 Nonactive complements

❖ Up this point, we have considered clauses that consist of a subject, a verb, and various types of complements. Depending on the verb, there may be a direct object, an indirect object, or an oblique complement. In addition, there may be adjuncts, phrases that are fully optional with any verb. This description covers sentences like the following, in which the complements are bracketed:

(1) a. *Mary saw [Harry].*
b. *John offered [a peanut] to the monkey] yesterday*
c. *The big boy ran [to town] very slowly.*
d. *Julie will come on time.*
e. *He wept.*

In the following examples, the nonactive examples are bracketed:

(2) a. *My green pencil is [long].*
b. *The boy seemed [unusually large].*
c. *Heidi became [sick] at the circus yesterday.*

(3) a. *Maria is [a happy woman].*
b. *Reagan was [the president of USA] from 1981 to 1989.*
c. *She became [one of the most influential people in the world].*

(4) a. *A trapeze artist will be [at the circus].*
b. *Joan is [here] now.*
c. *John is [on time] yesterday.*
d. *The party is [tomorrow].*
e. *That artichoke is [mine].*
f. *This spud's [for you].*

Each clause contains a verb such as *be, became,* or *seem*, followed by some phrases such as an AP, NP, PP, or AdvP. Clearly, these extra phrases are not objects, which are always NPs. Yet, they are complements, since these verbs cannot occur without them.

(5) a. **My green pencil is.*
b. **She became.*
c. **The boy seemed.*

Many examples have more than one phrase after the verb, but all except the firstare optional and therefore are adjuncts.

(6) a. *Heidi became sick (at the circus) (yesterday).*
b. *Reagan was the president of the US (from 1981 to 1989).*
c. *Joan is here (now).*
d. *John was on time (yesterday).*

❖ Nonactive complements are classified based partly on their syntactic category and partly on their meaning.

❖ In (2), the complements are adjective phrases. Accordingly, they are call **ADJECTIVAL COMPLEMENTS**.

- In (3), the complements are noun phrases. They are called **NOMINAL COMPLEMENTS**.

- IN (4), the complements have a variety of structures and meanings, but most correspond to oblique adjuncts such as location and time. There is no standard term for them as a class, but (depending on their function) they might be called **LOCATIVE COMPLEMENTS, TEMPORAL COMPLEMENTS, POSSESSIVE COMPLEMENTS**, etc

4.2 Nonactive verbs

In most languages, only a small number of verbs can take nonactive complement. Let's call them NONACTIVE VERBS. Such verbs may take only some of the affixes from the `ordinary` ACTIVE VERBS, or they may take only some of the affixes that are used with active verbs.

Nonactive verbs often have little meaning. The least meaningful is *be*, which can be described simply as a `grammatical equals sign`, since it expresses a close identification of the subject with the complement. Many languages have a verb meaning `be`, and when they do, it has a special name: a COPULA. When a language has a copula, it is usually the most common nonactive verb.

4.3 Actions versus states

NONACTIVE CLAUSES (clauses with nonactive complements) generally have meanings that are different from the clauses we've seen so far. The difference between an action and a state is that an action refers to a situation that changes over a relevant period of time, whereas a state refers to a situation that does not change over the relevant period.

Action:	*The truck crashed through the store window.*
State:	*The driver was drunk.*

During the relevant time period (a few moments), both the truck and the window underwent significant changes, but the driver's state of inebriation did not change.

Normally languages use different clause structures and different verbs to express actions and states. That is, languages generally make a distinction in form between active and nonactive (sometimes called STATIVE) clauses and verbs. For example, consider *become*; although it expresses an action (i.e., a *change* of state), it takes many of the same complements as clear cases of nonactive verbs like *be* and *seem*. Hence, we classify it as a nonactive verb.

Let's consider such clauses in more detail, starting with different types of nonactive complements.

4.4 Adjectival complements

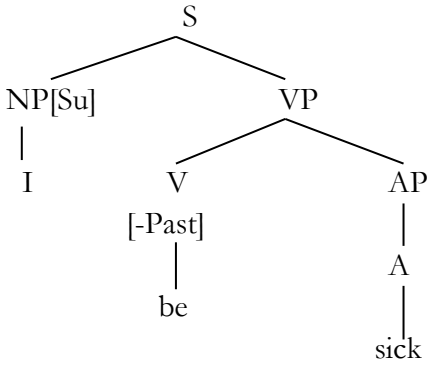
Adjectival complements (complements that are adjective phrases) typically express an abstract quality of the subject.

Martha seems [pensive].
That outhouse is [almost too repulsive].

The function of adjective phrases as complements is almost the same as their function as modifiers within a noun phrase. The difference is that, within a noun phrase, adjectives are used only to identify what the noun phrase refers to; in adjectival complement they provide new information about the subject.

One type of clause has the meaning that we might expect with an adjectival complement, but there is no overt copula.

The food is spoiled.
I am sick.
The food was spoiled.
I was sick.



I am getting sick
I got sick

4.5 Nominal complements

Nominal complements express either that the subject is a member of a group or identifies the subject as a specific individual.

a. *I am [a pacifist]*
b. *kangaroos are [some of the most fascinating creatures on earth]*.
c. *That woman is [the culprit]!*
d. *Arthur is [my favorite uncle]*.

The different distinct structures between nominal complements which contain adjectives with adjectival complements are:

Nominal complement containing an adjective: *My mother is [a tall woman]*

Adjectival complement: *My mother is [tall]*

If we look at the nominal complements, a similar pattern emerges, suggesting that we are on the right track.

I am a teacher.
I was a teacher.
It's my car.
It was my car.

4.6 Other nonactive complements

OBLIQUES may be complements, especially those that occur with verbs of motion and placement (e.g., 'go' and 'put') to express meanings such as Source, Path, and Goal. With other verbs, obliques that express Location are usually adjuncts. Many languages have one or more nonactive verbs like 'be' that are used to express where some object is located. The verbs which require obliques of location can be called LOCATIVE COMPLEMENTS. Let's see the difference between Location as an adjunct or a nonactive complement.

	Locative adjunct	Locative complement
PP	*I saw her at the concert.*	*Three hundred people were at the concert.*
Unmodifiable Single-word.	*He was reading a book here*	*he is not here.*
Idiomatic NP	*She bought a dress downtown.*	*My wife is downtown*

Typically, any phrase that can express location as an adjunct in an active clause can also express it as a complement in a nonactive clause. Locative complements are usually PPs, NPs, AdvPs, single-word obliques, or idioms depending on the specific possibilities in the language.

4.7 Existence and possession

There are two other meanings, EXISTANCE and POSSESSION, that are often expressed with structure that resemble nonactive clauses containing locative complements. Languages have different ways to express

EXISTANCE in the simple cases a language may have a special EXISTANCE VERB meaning 'exist'.

However, many languages have special clause structures to express existence, which may be called EXISTANTIAL CLAUSES. Often, existential clauses are very similar in form to clauses with locative complements. Consider the following English, examples:

Existential clause	ordinary clause with locative complement
There's a fly in my soup	*The fly is in my soup*
There is a Santa Claus.	*Santa Claus is in the chimney.*

There are some differences between the two clause types, however. The existential clauses have a dummy (meaningless) subject *there*, and the 'logical' subject occurs after the copula. In terms of meaning, an existential verb or clause asserts that the subject exists, often (but not always) specifying a location in which the existence is asserted. Such assertions usually occur at the first mention of an item in a discourse.

Once upon a time, there were three bears.

A clause with a locative complement, however, presupposes that the subject's existence has already been established and asserts its location.

They were in the forest picking berries.

POSSESSION is similar to existence and location in many ways. Like existence, languages may have a special verb to assert possession, such as the word *have* in English.

The baby bear had a wee, tiny chair.

4.8 Locative complements

Locative complements provide a bit of a surprise—there is a new verb, 'be located'.

Droteo is in the garden.
Droteo was in the garden.
The fish are in the ocean.
The fish were in the ocean.

4.9 Existential complements

There is a separate clause structure that is used to assert existence. It uses the same verb as the clauses with locative complements.

There are fish in the ocean.
There were fish in the ocean.
There is a house here.
There was a house here.

UNIT 5

Obliques

5.1 Obliques

❖ Obliques are any of the phrases within a clause other than the subject, direct object, direct object, indirect object, or verb.

❖ Obliques usually express a wider range of meanings than do subjects and objects. Some express secondary characters.

(1) BENEFACTIVE

He opened the door[for the small children].

Many nations provided funding [for the Persian Gulf war].

(2) ACCOMPANIMENT

He ate dinner [with his guests].

Why don't you come [with me]?

He missed the dirt [with the manure].

(3) INSTRUMENT

Many people have learned to eat [with their fingers].

The mill will not grind [with water that is past].

We make a living [by what we get], but we make a life [by what we give].

Let's go [on foot].

Others express setting.

(4) TIME

He awoke [late the next morning].
It has been too hot[the whole week].Most successful sales come [after the fifth call].

(5) LOCATION (of an object or an entire event)
He saw the dog[over there].
Little mice sat [on a teapot].

(6) SOURCE (starting point)
He came [from Alabama].
Please take that silly hat [off your head].

(7) PATH
They passed [through many twisted corridors].
One if [by land], two if [by sea]…

(8) GOAL (endpoint)
He ran [to the back of the room].
I'll put the letter [on your desk].

Other obliuqes express abstract qualities characteristic of the event or of the speaker's attitude towards the event.

(9) MANNER
[Very slowly], she backed out of the cage.
Sergeant pepper dismantled th bomb [with great care].
[Unfortunately], we cannot retain your services.

5.2 Prepositional and postpositional phrases

❖ The structure most used for obliques is a noun phrase combined with a PREPOSITION (such as under) to form a PREPOSITIONAL PHRASE (PP), such as under the table. Conversely, the most common

use of PPs is as obliques, although we have also seen them used as possessors, indirect objects, and even direct objects.

(10) Su DO IO Oblique
NP ⟷ PP

❖ The preposition plays a pivotal role in a PP, since it signals the relationship of the NP to the clause. For example, it is the preposition in the following examples that indicates the grammatical relation of meaning of the phrase.

(11) **to** *Arthur* Indirect Object or Goal
for *Arthur* Benefactive
with *Arthur* Accompaniment
on *Arthur* Location
through *Arthur* Path

❖ Of course, the meaning of the noun phrase itself also plays a factor, since many prepositions can be used to express more than one meaning:

(12) **in** *three minutes* Time
in *the candy dish* Location
in *a huff* manner

o Noun phrase

(13) Benefactive: *Juma cooked some porridge* ***for Ahmed***.
(14) Time : *The rooster crowed* ***three times***.
(15) Goal and Time: *Fatuna goes* ***to the mosque on Fridays***
(16) Location: *Juma kissed Halima* ***in the attic***.
(17) Path: *Juma did not go* ***by the path***

5.3 **Adverb phrases**

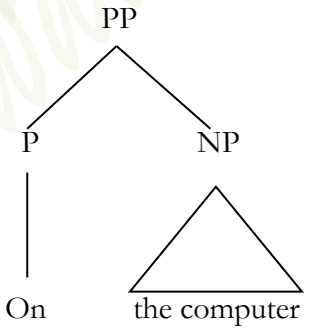
❖ Many other words traditionally called adverbs are clearly not in the same syntactic category as true adverbs. Degree words,for example, are traditionally considered adverbs, but they cannot be interchanged freely with true adverbs.

(18) a. *She ran very smoothly.*
*b. *She ran smoothly very.*
c. **She ran quickly smoothly.*
d. **She ran very so.*

(19) a. *Don't speak so fast.*
b. **Don't speak fast so.*
c. **Don't speak fast well.*
d. **Don't speak very.*

(*means that the utterance is unacceptable)

in some languages (especially SOV languages), 'prepositions' follow the NP, in which case they are called POSTPOSITIONS (also P) and the phrases are called POSTPOSITIONAL PHRASES (also (PP). in a PP, the preposition or postposition is the head and the noun phrase is called its OBJECT, the structure that is generally assumed for PPs is as follows:



5.4 The Distribution of Obliques

Obliques can occur outside of objects if they occur on the same side of the verb, the object will be closer to the verb than the obliques. Wherever they occur, the relative order of the obliques to each other is usually free, while the order of subject, verb and objects is often more fixed.

(13) a. *I went to sleep in phonology class this morning.*
b. *I went to sleep this morning in phonology class.*
c. **went to sleep I in phonology class this morning.*

(14) a. *I was studying grammar with some friends until two in the morning.*
b. *I was studying grammar until two in the morning with some friends.*
c. **I was studying with some friends grammar with until two in the morning*

For English we could write a VP rule like the following:

(15) VP : V (NP[DO]) (VP) (PP[IO]) [{ NP / PP / AdvP }]

In English, obliques can also occur in front of the subject.

(16) *Last night, I studied too long*

Also, some obliques can occur just before the main verb.

(17) *I was gradually walking up, when I realized how late it was.*

5.5 Complement versus adjuncts

Most obliques serve as modifiers within the clause and most obliques can freely occur with all types of verbs.

Complements are phrases that are required by particular verbs.

Adjuncts are phrases that freely occur with all verbs.

Most obliques are adjuncts, but not all are. Obliques expressing Source, Path, and Goal, in particular, are required by some verbs and cannot be used with others. The distinction is also sometimes applied within a noun phrase: the possessor is a complement, and the modifiers are adjuncts.

(18) a. *Polly put the kettle on the table.*
b. **Polly put the kettle.*

(19) a. *In a rage, Arthur killed the pesky fly.*
b. **in a rage, Arthur killed the pesky fly to the wall.*

(20)

Normally complement		Normally adjuncts
Agent	Source	Benefactive
Experience	Goal	Accompaniment
Patient	Path	Instrument
Theme		Time
Recipient		Location
Addressee		Manner
Typically expressed With grammatical Relations: Su/DO/IO	typically expressed with obliques	

5.6 How to write your PP

Whether a language has prepositions or postpositions tends to correlate with facts about the order of constituents in other phrases. There are two types of languages with respect to constituent order in clauses and phrases. HEAD-INITIAL and HEAD-FINAL languages.

(21) Head-initial:

PREPOSITION		precedes	object in PP
VERB	precedes	object	in VP or S (SOV, VSO, VOS)
NOUN		precedes	possessor in NP

Head-final:

object	precedes	postposition	in PP
objects	precede	VERB	in VP or S (SOV, OSV, OVS)
possessor	precedes	NOUN	in NP

possessors in English precede the head noun, even though objects follow verbs and prepositions. In other words, these CONSTITUENTS ORDER UNIVERSALS are not true for all languages but represent UNIVERSAL TENDENCIES that are true for most languages.

Let's bring our phrase structure rules together in one place and see how they work.

(22) S → NP[Su] VP

VP → V (N[DO]) (VP) (PP) [IO] $\left[\left\{ \begin{matrix} \text{NP} \\ \text{PP} \\ \text{AdvP} \end{matrix} \right\} \right]$ *

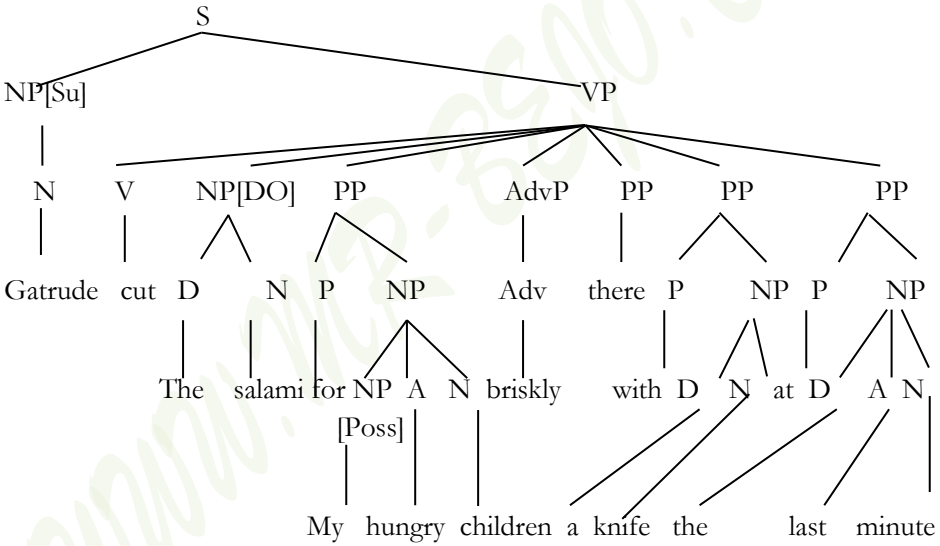
PP → P NP

NP → $\left\{ \begin{matrix} \text{D} \\ \text{NP[Poss]} \end{matrix} \right\}$ (QP) (AP) * N (PP)

AP → (DegP) A
AdvP → (DegP) Adv
QP → (DegP) Q
DegP → … Deg

Given appropriate lexical entries, these rules will generate the following tree:

(23) Getrude cut the salami for my hungry children briskly there with a knife at the last minute.



❖ The most obliques can freely co-occur with all types of verbs, unlike direct and indirect objects. Recall that some verbs are intransitive (they can't have objects), some are ditransitive (they require two objects), etc. In contrast to this, the presence of most obliques is neither ruled out nor required by any verb.

- Thus, a basic distinction is usually drawn between those phrases that are required by particular verb, called COMPLEMENTS, and other phrases that freely occur with all verbs, called ADJUNCTS.
- The complements (such as direct and indirect objects) are those phrases that a verb subcategorizes for; all others are adjuncts.
- Most obliques are adjuncts, but not all are. Obliques expressing Source, Path, ND Goal, in particular, are required by some verbs and cannot be used with others.

Unit 6

Embedding and Noun Phrase Structure

Noun phrase structure in English

❖ In this chapter, we turn clause structure to noun phrase structure. we especially want to explore **EMBEDDING**, a principle underlying phrase structure in all languages. We start by looking at noun phrase structure in English, which illustrates embedding well.

(1) NP ---- (D) (A) N

✓ This rule will generate noun phrases like the following:

(2) *artichokes*
the artichoke
the big artichoke
big artichokes

✓ A numeral can occur between the determiner and the adjective.

(3) *two artichokes*
two big artichokes
the two artichokes
the two big artichokes

✓ Traditionally, numeral are classified as a type of adjective. however, they are not mutually substitutable for adjectives; for example, their ordering cannot be reversed.

(4) **big two artichokes*

✓ Therefore, we must recognize a separate category in the lexicon, called **QUANTIFIER** (Q), which includes numerals and other words which are mutually substitutable for them.

(5) Q (many, few, one, two, three …)

✓ we must also add Q to the NP rule.

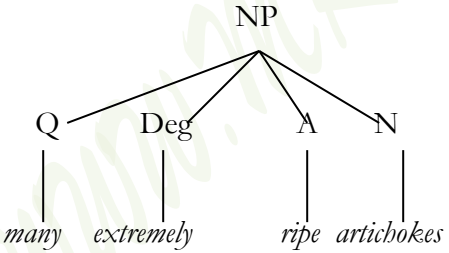
(6) NP ---- (D) (Q) (A) N

✓ Also, words like very, rather, and extremely, which are called **DEGREE WORDS** (Deg), can occur just before an adjective.

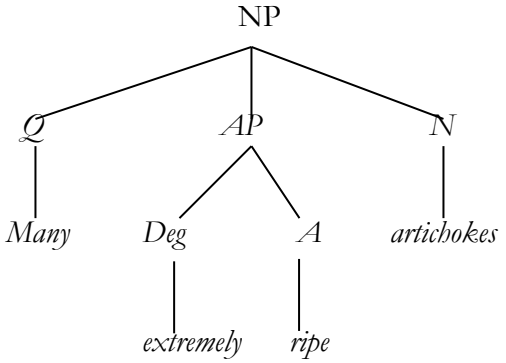
(7) many extremely ripe artichokes

✓ What is the constituent structure of this example? There are two possibilities:

(8) a.



b.



- ✓ That is, do Deg and A together form an **ADJECTIVE PHRASE (AP)**, as in (8b)? Or are they individually constituents of the NP, as in (8a)?

- ✓ Extremely modifies ripe, rather than many or artichokes. That is, it is closer semantically to ripe than to other words. This suggests that(8b) is the correct structure. But, is there any syntactic evidence supporting this conclusion?

- ✓ For starter, ripe can occur without extremely, but extremely cannot occur without ripe.

(9) *many ripe artichokes*
**many extremely artichokes.*

- ✓ This can be explained easily if we assume (8b) is correct and that it is generated by the following set of rules:

(10) Phrase structure rules for hypothesis in (8b)
NP --- (D) (Q) (AP) N

AP --- (Deg) A

- ✓ These rules explicitly allow an A without a Deg, but not vice versa; the only way to get a Deg is to have an AP, and if you have an AP you also need an A. On the other hand, if we assume Deg is a daughter of NP, as in (8b), we would adopt an NP rule more like the following:

(11) Phrase structure rule for hypothesis in (8a)
NP --- (D) (Q) (Deg) (A) N

- ✓ This incorrectly allows a Deg to occur without an A, so, (10) and (8b) provide the better analysis. Another fact: more than one adjective can occur in a noun phrase and each can have its own degree word.

(12) *many ripe, juice artichokes*
many very ripe, very juicy artichokes
many very ripe, very large, very juicy artichokes

- ✓ We can account for this easily if we assume that there is an AP. All we need is add an asterisk to the AP in (10), which indicates that there can be any number of APs in the NP.

(13) Desirable phrase structure rules for (12):
NP ---= (D) (Q) (AP)* N
AP --- (Deg) A

- ✓ But if assume that Deg is a daughter of NP, as in (8a), we end up having to modify (11) into a horridly cumbersome rule.

(14) Undesirable phrase structure rule for (12):
NP --- (D) (Q) (Deg) (A) (Deg) (A) (Deg) (A) N

- ✓ And worse, this makes wrong prediction about further data; it allows a Deg word to follow an adjective.

(15) **the moldy very artichoke.*

✓ As if all this isn't enough, adjectives can be modified by degree words in other contexts.

(16) a. *The artichoke is* ***very mushy****.*
b. ***Very mushy*** *is a terrible condition for an artichoke to be in.*
c. *He made it* ***very mushy****.*

✓ Let's look further. Quantifiers can be modified by degree word too.

(17) too many artichokes
approximately 300 artichokes

✓ So we also need to allow for the possibility of a **QUANTIFIER PHRASE** (QP) inside the NP, for the same reason that we recognized an AP.

(18) NP --- (D) (QP))AP)* N
QP --- (Deg) Q
AP --- (Deg) A

✓ What picture is beginning to emerge? All the major modifiers in an NP can be phrases; they are not limited to single words. And, if we push a little further, we find this true elsewhere. For example, the degree word (inside a QP or AP) can be replaced by a **DEGREE PHRASE** (DegP):

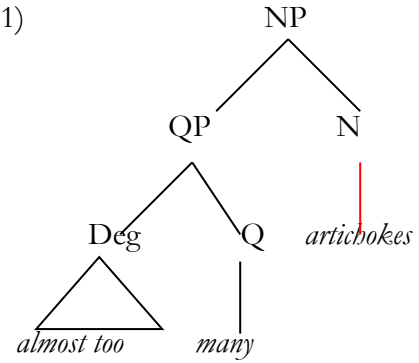
(19) [**QP** [**DegP** *almost too*] *many*] *artichokes*
many [**AP** [**DegP** *very very*] *green*] *artichokes*

✓ So we need to change our rules again.

(20) NP --- (D) (QP) (AP)* N
QP --- (DegP) Q
AP --- (DegP) A
DegP --- … Deg

✓ This phrase-within-phrase structure is more visible if we draw a tree generated by these rules.

(21)



✓ Are there any other phrases that can occur inside a noun phrases? Yes, **PREPOSITIONAL PHRASES** (PPs) can.

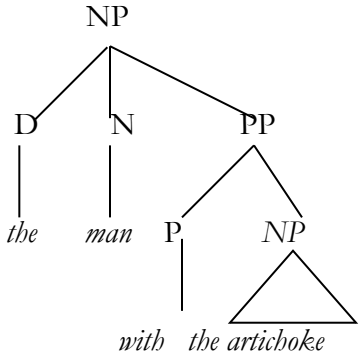
(22) *the artichoke* [**pp** *in the moon]*
any artichoke [**pp** *under the table]*
*the man [***pp** *with the artichoke]*

✓ A prepositional phrase consists of a **PREPOSITION**, like *in, under*, or *with*, together with a noun phrase. We need to do two things in our grammar: (a) add a rule defining what a PP is and (b) include an optional PP at the end of the NP rule.

(23) PP --- P NP
NP --- (D) (QP) (AP)* N (PP)
QP --- (DegP) Q
AP --- (DegP) A
DegP --- … Deg

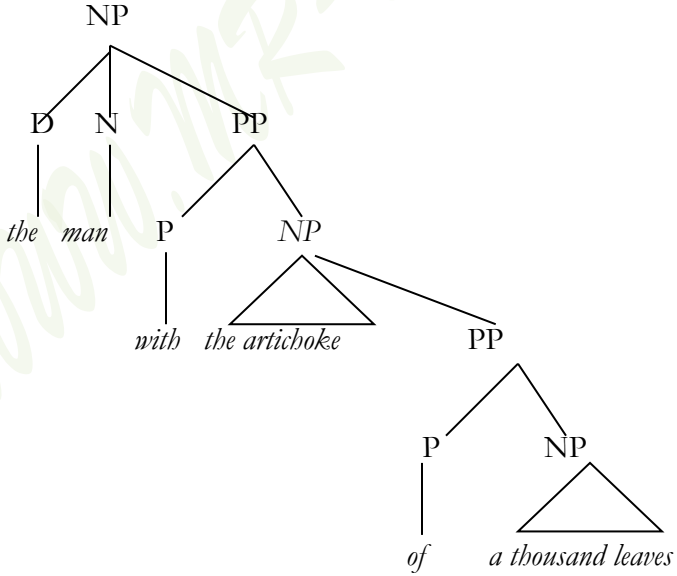
- ✓ Since an NP can contain a PP, and a PP in turn contains another NP, this results in a tree structure with one NP node dominating another (with a PP node in between).

(24)



- ✓ And since a PP can be added to the inner (lower) NP, you can see that English has potential for producing some very large noun phrases.

(25)



10.2. Constraints on phrase structure rule

HEAD refers to the centrals and most important daughter of a Phrase. The head on NP is N, the head of VP is V, the head of AP is A, the head of PP is P, etc. All phrasal categories have heads , but not all word-level can be the heads of phrases; this is another way of saying that not all word types can have modifiers. D is such a category in English; there are no modifiers and thus there are no determiners and thus there are no determiner phrases for D to be the head of.

10.3. Possession

In English there are two ways to express possession. One uses a PP (headed by the preposition of) embedded in an NP.

An artichoke [of mine]

The book [of yours]

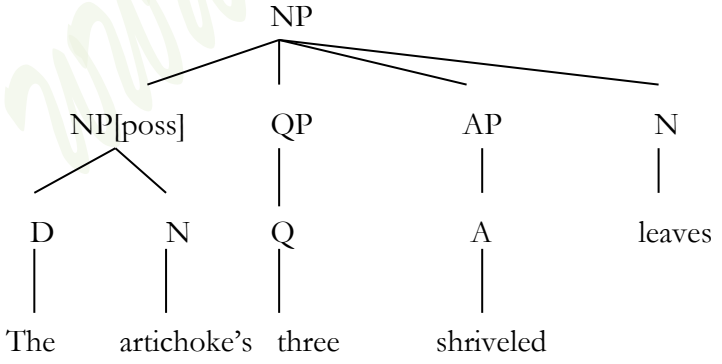
This type is already accounted for in our rules, which allows a PP to be embedded inside an NP.

The other way of expressing possession involves an NP embedded at the beginning of a larger NP.

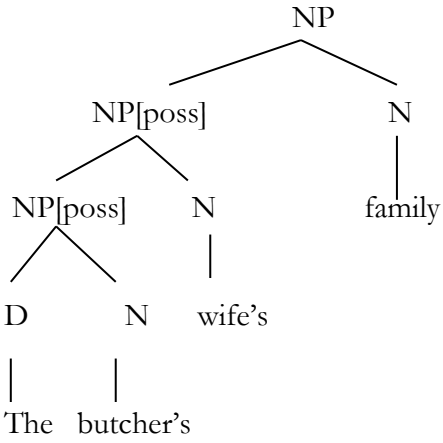
[NP[NP the artichoke's] three shriveled leaves]

[NP[NP this book's] numerous artichoke examples]

This rule produces threes like the following.



[NP[NP[NP the butcher's] wife's] family]



Unit 7

Commands

7. 1. Mood

- Mood is a grammatical category used in many languages to indicate something about the relationship of a sentence's meaning to the fact of the real world (or some imaginary world).

- A mood that is used primarily in statements (to communicate information about the world) is called **INDICATIVE MOOD**.

- A mood that is used primarily in commands (to exert some influence over the world) is called **IMPERATIVE MOOD**.

- Other languages don't make the division so much between the statements and commands, but have two moods that distinguish between what is real (**REALIS MOOD**) and what is less than real (**IRREALIS MOOD**). Depending on the language, **IRREALIS** may include ***commands, wishes, hypothetical*** and/or ***contrafactual statements, future time*** (which is not yet real), and statements over which the speaker indicates doubt or uncertainty. that is, if a language has a special irrealis mood, it would typically be used in the translations of some or all of the following clauses:

(1) Commands

Go to bed!

God, please make it rain!

Live like a king!

(2) Wish

May my baby go to bed early!
(I hope) it rains tomorrow…
Long live the king!

(3) Purpose

(Get dressed) so you can go to bed.
(The shaman offered a sacrifice) to make it rain.
(He worked very hard) to become king!

(4) Hypothetical

If you go to bed…
If it rains to morrow…
If he becomes the next king…

(5) Contrafactual

If you had gone to bed…
If it had rained yesterday …
If I was a king …

(6) Future

You will go to bed at 8:00.
It will rain later this week.
He will become king on the death of his mother, the current queen.

(7) Uncertain

(I think) that he may have gone to bed.
(It is reported that it rains everyday in June (but I will not vouch for this fact personally)

His reign will (probably) be long and illustrious.

7.2. Prototypical semantics of commands

- There is a surprising similarity in the way languages form commands. this stem from two basic semantic facts about commands:
  - the subject of a command is second person
  - a command refers to future time

- these can be seen in English not just in the meanings of commands, but also in their grammatical structure. why do we say tat the subject of a command is second person, when the subject is normally omitted? of course, that is the understood meaning of a command. for instance, in the English commands below, the agent who is intended to perform the action is clearly ***you***.

(8) a. *Shut up!*
b. *Stop it!*
c. *Please brush your teeth – your breath stinks!*

But, in addition to these philosophic concerns, there is some linguistic evidence in English that commands are grammatically future. Future time is indicated in English with the auxiliary verb *will*. It is omitted from an imperative clause, but reappears when a tag is added to a command.

(9) *Come here, will you!*

7.3 English Commands

Commands in English differ from statements in three ways, all related fairly directly to the universal factors noted above. The first is syntactic the other two morphological.

a. The subject NP is usually omitted.

b. All overt indication that the subject is second person is removed from the verb.
c. The verb is not marked for tense.

The lack of agreement and tense morphology can be seen most clearly with the copula to be. This verb has more forms than most verbs, it varies depending on tense and the person and number of the subject.

I	am
He/she/it	is
We/you/they	are
i/he/she/it	was
we/you/they	were

however, in commands we find none of these forms. Instead, we get only the stem form be, sometimes called the INFINITIVE.

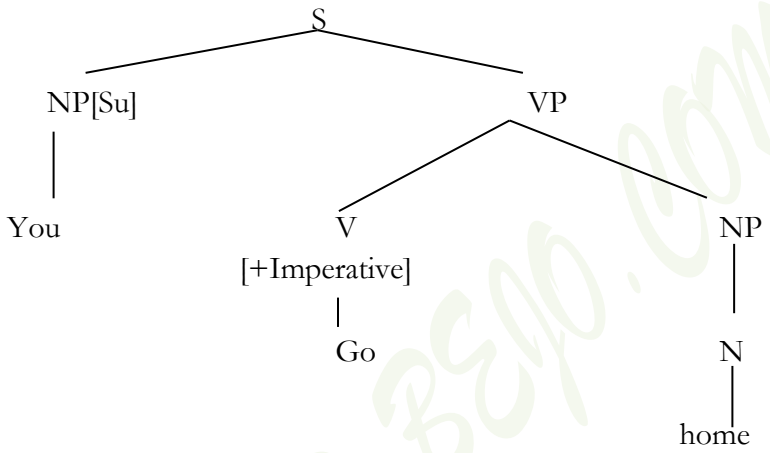
(10) Be quiet!

Whenever this form *be* is used, it expresses nothing about person, number, or tense. In other words, imperative verbs use a special morphological form, the infinitive, which does not mark as many grammatical categories as ordinary verb forms.

In English commands the subject NP (you) is usually omitted. We need some of stating that it is just in commands that the subject can be omitted. What we need is a transformation, one which deletes the subject you only in commands. That is, we assume that the deep structure of a command always has you as its subject and that the transformation, called IMPERATIVE SUBJECT DELETION, optionally deletes the subject if the verb has been marked [+imperative]

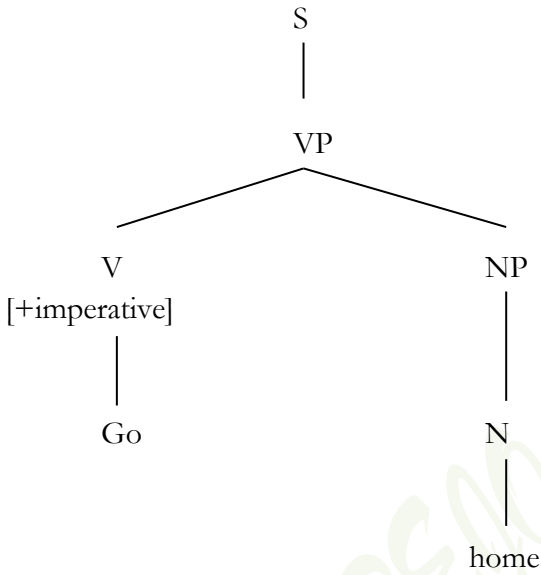
As an example of how this rule works, consider how we might generate the command 'Go home!' Our phrase structure rules and lexicon would produce the following deep structure:

(11)



Note that the inflectional features on the verb are the only difference between (11) and the deep structure of the corresponding statement 'You go home'.

In this tree is allowed to surface without being affected by imperative Subject Deletion, the eventual result is the grammatical command 'You go home'. More commonly, however, the transformation does not apply and the result is a sentence with the following structure:



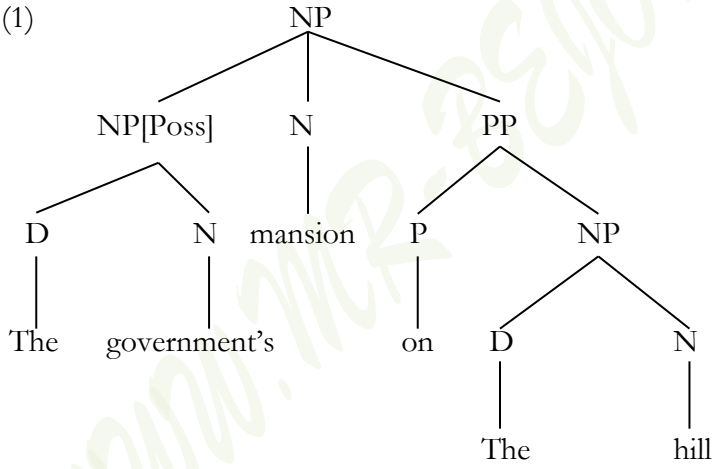
Unit 8

Embedded Clause

8.1. Embedding (review)

Embedding phrase states that several different types of phrases are embedded inside NP. In particular, both a PP and an NP (the possessor) can be embedded inside NP.

(1)



8.2 Embedded clauses

The following sentences exemplify three different kinds of embedded clauses. Brackets have been used to indicate the embedded clauses.

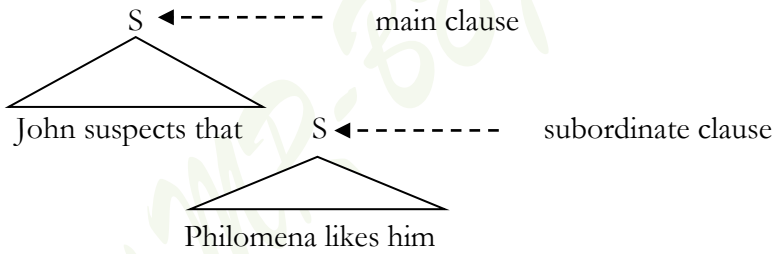
(2) a. John suspects [that Philomena likes him].
b. Murgatroyd will work [when he has eaten lunch].

c. I love the music [which is broadcast by the public radio station].

In (a), the embedded clause is acting as the complement (specifically the direct object) of the verb *suspects* and so is often called a COMPLEMENT CLAUSE. In (b), the embedded clause is oblique of time and so can be called an OBLIQUE CLAUSE. (also known as ADVERBIAL CLAUSE). In (c), the embedded clause occurs in inside a noun phrase (NP) modifying the head and is called a RELATIVE CLAUSE.

Embedded clauses are traditionally called SUBORDINATE CLAUSES, because they are included in some other clause. In a tree diagram, the main clause is the topmost S and the other clauses are 'subordinate' to it.

(3)



Besides embedding, there is another way of combining constituents, called CONJOINING. Conjoining links together two constituents of the same type, to make another constituent of the same type. It connects them with words like *and* and *or*, which are traditionally called CONJUCTIONS. For example, the following sentences consists of two conjoined independent clauses. The two clauses, when conjoined with *and*, form a larger clause.

(4) [s [s John sings] and [s Mary plays the piano]]

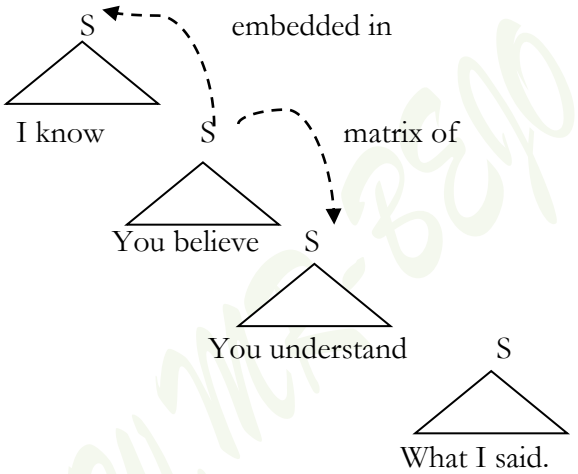
They are both considered to be independent clauses, because they have the right structure to stand alone as main clauses.

Two dependent clauses can also be conjoined. In the following, two complement clauses have been joined into a larger complement clause which is the direct object of the main clause.

(5) I believe [[that he is guilty] and [that they will convict him]].

The higher S is called the UPSTAIRS or MATRIX clause; the lower S is called the DOWNSTAIRS or embedded clause.

(6)



8.3 Complement clauses

A complement clause occurs embedded as the subject or direct object of another clause. Consider the following sentences, in which the complement clauses are bracketed.

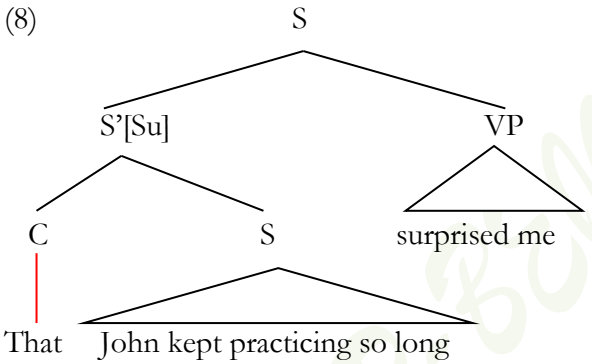
(7) a. [That John kept practicing so long] surprised me.

b. She thought [that Bill brushed his teeth with garlic sauce].

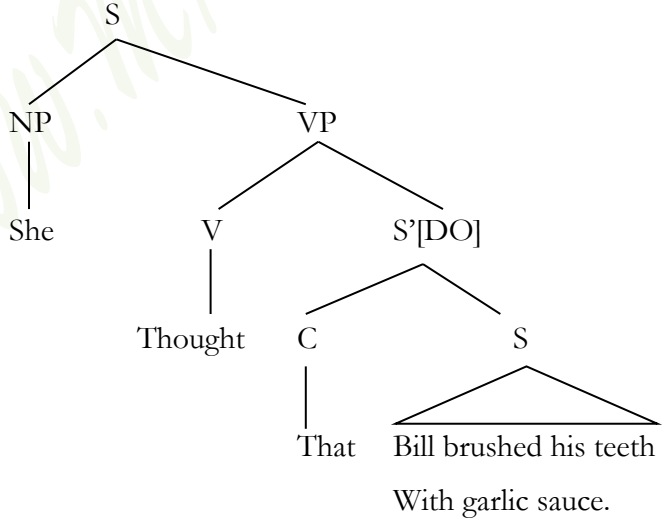
The words which introduce complement clauses are called COMPLEMENTIZERS. There are several different complementizers in

English: *that* is the clearest example. Linguists generally assign complementizers to a minor category called C, which joins together with an S to form a constituent called S' (read 'S-PRIME') sometimes you will see S ('S-BAR') in place of S'. the embedded clause is functioning as subject or direct object within the matrix clause. Grammatical relations can be represented with the same features [Su] and [DO], but they are attached to the S' node, rather than an NP.

(8)



(9)



8.4 Oblique clauses

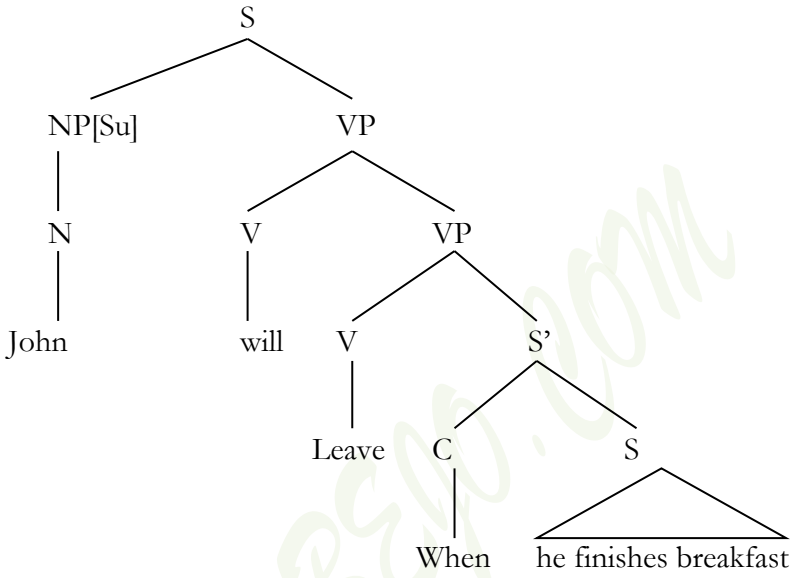
Oblique clauses are embedded clauses which are obliques within their matrix clauses. Along with PPs, AdvPs, NPs, etc., they are used to express typical oblique notions such as time, location, and manner. Consider the following sentences, in which the oblique clauses are bracketed:

(10)

a. My heart goes [where the wild goose goes]
b. John will leave [when he finishes breakfast]
c. [Having win the battle], Caesar marched into Rome triumphantly.
d. [If John keeps practicing], he'll be famous.
e. [Because Mary kept practicing so faithfully], she did become famous.
f. [Although John kept on practicing faithfully], he did become famous.
g. Be quiet [so that you can get an ice cream cone].

For example, we might draw the following tree to show a clause embedded in the VP as an oblique.

(11)



Note that the category C includes words such as *when, where, if*, and *because*, even though these would traditionally be called 'subordinating conjunctions' rather than complementizers. C is used for any particle that introduces a clause, because all such particles (regardless of their traditional labels) share the property if introducing an embedded clause. All of these ideas can also be expressed by PP obliques.

(12) a. Condition: In case of fire, you should run and holler, scream and shout.
b. Purpose: He pulled the fire alarm just for fun.
c. Reason: He paid a heavy fine for his stupidity.

Unit 9

Phrase Structure Rules and the Lexicon

Formal versus informal grammars

- A formal grammar is a scientific model of a language which describes what is and is not a grammatical (well-formed) sentence. It attempts to represent what a speaker of the language knows about its structure; this knowledge knows about its structure; this knowledge also called a GRAMMAR.

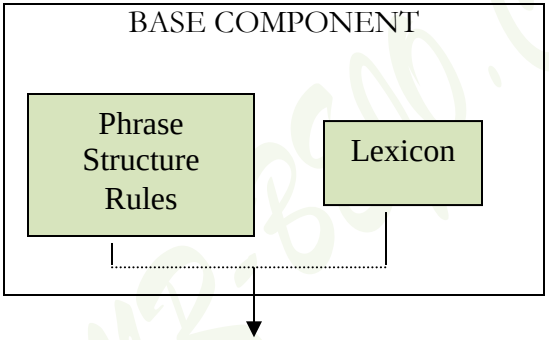
- A formal grammar is a model of a speaker`s internal grammar. Formal grammars are different from the books that you have usually seen called `grammars`, such as foreign language textbooks. These could be called INFORMAL GRAMMARS. They are usually easier to understand than formal grammars, but are usually less precise.

- Formal grammars attempt to represent a speaker`s internal grammar much more accurately and in more detail than is usually done in informal grammar. Since one goal of a book is to help you think clearly and precisely about languages , it makes use of formal grammars as tools for describing languages.

- The details of formal grammars are based on a family of related linguistic theories which are collectively called GENERATIVE GRAMMAR.

- Generative grammar conceives of a language`s grammar as a precise set of rule that specify which utterances are grammatical in a language and which are not.

- Most generative grammars represent the structure of a sentence in the form of a tree, as we have been doing. The portion of a generative grammar which is responsible for building such as a tree is often called the BASE COMPONENT and consists of two parts; the PHRASE STRUCTURE RULES and the LEXICON.



- The phrase structure rules provide the syntactic structure of the sentence and the lexicon provides the vocabulary.

- Phrase structure rules provide precise statements about which trees are well-formed and which are ill-formed, with respect to such things as constituency and word order. The lexicon provides precise statement about whether the words in a tree are used in proper contexts, as well as providing information about their meaning and pronunciation.

- In short, the phrase structure rules build the nonterminal nodes of a tree and the lexicon adds the terminal nodes.

Unit 10

Verbal Valence: Subcategorization and Selectional Restriction

11.1 Transitive of Clauses

Clauses that do not contain any objects are called INTRANSITIVE.

- The man went.
- A woman arrived.
- The big dog sat.
- The one little cat arose.

Clauses which contain a direct object are called TRANSITIVE

- The man ate the food
- The man squared a long log.
- A woman drew out water.
- The dog drank water.

There is a special type of transitive clause which contains an INDIRECT OBJECT as well as a DIRECT OBJECT. These are generally called DISTRANSITIVE or BITRANSITIVE.

- The man gave a small coin to a woman.
- The man sent a message to a woman.
- A child chatted with a woman.

Indirect objects typically represent such ideas as the RECIPIENT of something (with verbs like give and throw) or the ADDRESSEE (with verbs like mention, speak, and shout)
Indirect objects in English are also from PREPOSITIONAL PHRASES (PPs) consisting of the PREPOSITION *to* followed by NP.

- He offered a mustache comb to his girlfriend.
- She gave the ring back to her former boyfriend.
- Lucy threw the ball to Charlie Brown.
- Speak properly to your mother.

English shows the indirect object as prepositional phrase following the direct object.

S → NP[Su] VP
VP → V (NP[DO]) (PP[IO])
PP → P NP

11.2 Verbal Valence

The following sentences generally sound wrong to native speakers of English though they are grammatical.

- *Mary rested the idea.
- *The pilot put the airplane.
- *Curious green ideas sleep furiously.
- *The idea walked into the room.

What's wrong with them? In general, the problem is that each verb requires certain phrases to be present or absent in its context. If the context is inappropriate for the verb, putting the verb in that context will sound wrong. This characteristic of verbs to be `choosy` about their context is called VALENCE.

We consider two sides of verbal valence here. One has to do with syntactic properties of verbs and can be called SUBCATEGORIZATION. The other concerns the semantic properties of verbs and is usually called SELECTIONAL RESTRICTIONS.

11.3 Syntactic valence: Subcategorization

Verbs that occur only in intransitive clauses are called INTRANSITIVE VERBS.
Verbs that occur only in transitive clauses are called TRANSITIVE VERBS.
Verbs that occur only in ditransitive clauses are called DITRANSITIVE VERBS.

Different verbs require different combinations of direct and indirect objects. The category of verbs is thus subdivided into several smaller subcategories: intransitive verbs, transitive verbs, etc.

11.4 Semantic valence: Selectional restrictions

Syntactic subcategorization is distinguished from another type of verbal valence which involves semantics. Consider the following sentences:

- The lightning considered mopping in the floor.
- The paramecium threaded its way through the maze.
- The lamppost was lecturing temperance.
- An idea flew into the room.

The problem with the sentences above is that they describe situations which do not occur in the ordinary world.
All of them have wrongness around them. Yet, this wrongness does not result from syntactic subcategorization, since there are parallel sentences.

With the same combinations of direct and indirect objects, that are perfectly acceptable.

- The janitor considered mopping the floor.
- The paramecium threaded its way through the maze.
- The boss was lecturing Arthur.
- An idea flew into my mind.

However, when we are doing syntactic analysis, we do sometimes need to keep track of the semantic structure of a verb in a rudimentary way. One common way to do this is through SEMANTIC ROLES, which are a kind of shorthand summary of common selectional restrictions. Here are some of the semantic roles that are usually found with subjects, direct objects, and indirect objects:

AGENT a conscious, volitional causer of an event
EXPERIENCER a thinking being that experiences a mental event.
PATIENT an entity that undergoes a change of state in an event
THEME an entity towards which an action is directed, without being a patient.
RECIPIENT a person who acquires control over a Theme as a result of an event.
ADDRESSEE the target of some communication

Look at the semantic roles associated with the noun phrases in the following examples:

- *A child chatted with a woman* *(chatted with: lit., 'gave words with')*
  Agent Addressee (Theme)
- *The old hunter spotted a three-point buck.*

Experiencer Theme

- *My parents give too many presents to our kids.*
  Agent Theme Recipient

11.5 Semantic roles and grammatical relations

We have assumed *Agents* and *Experiencers* to be subject, *Patients* and *Themes* to be direct objects, and *Recipients* and *Addressees* to be indirect objects. There are plenty of exceptions. For example, in *receive*, the subject could be considered a *Recipient* rather than an *Agent*. In *break*, there are two possible associations of semantic roles. Depending on its use as a transitive or intransitive verb. As a transitive verb ('He broke'), the subject is a *Patient* and there is no *Agent*. So, cannot completely predict semantic roles on the basis of grammatical relations, or vice versa. We cannot write general rules of the form 'all subjects are *Agents*' or 'all *Patients* are direct objects'.

Unit 11

Questions

12.1 Questions and Commands

QUESTIONS are normally used to request information and COMMANDS are normally used to influence the behavior of others

12.2 Form and function

Form of a sentence is related with its grammatical structure and function of a sentence is related with what people use it for.
It is not true that questions always request information or that any sentence which requests information is a question. Questions also can be used to influence others' behavior, a function normally associated with commands.

(1) a. Why don't we start now?
b. How many times do I have to tell you to stop whistling in the house.

Sometimes people ask a question when they really aren't asking for information; such questions are called RHETORICAL QUESTIONS.

(2) a. How should we understand this problem? I will suggest a way …
b. Could we find a better solution than the one Maria has proposed? Certainly not!
c. What do we need in a formal analysis to handle this data? First we should . . .

similarly, statements and commands are sometimes used with the function of questions: to request information.

(3) a. I'd like to find out more about your dried artichoke collection.
b. Tell me everything you remember about the robber's appearance.

The form is its grammatical structure, whether it is a statement, question, or command. Each form has a primary function, but in English each can also be used for functions typical of the others.

	Primary function	Secondary functions
Statement	Convey information	Request information Influence other's behavior
Question	Request information	Influence others' behavior Convey information Introduce topic and otherwise make explicit the structure of the discourse.
Command	influence others' behavior	Request information

The distinction between primary and secondary functions is important for three reasons.

One, the primary function is what we uses as the basis for naming a form.

Two, primary functions are what allow us to identify a structure in one language as being in some sense 'the same as' a structure in another.

Three, although the primary functions of questions will be the same in all languages, the secondary functions vary quite a bit from one language to the next.

A full description of a language includes pragmatic information about the secondary uses of statements, questions, and commands.

12.3 Intonation: Distinguishing two types of questions

Wh-questions normally have falling intonation and Yes/No questions normally have rising intonation.

(5) a. Who killed Cock Robin?
b. Where did you park the car?
c. How old were you when you were born?

(6) a. I s that your great Uncle Harold?
b. Does this course count toward your degree?
c. Did you bake that blueberry pie?

The questions in (5) are used to ask a question such as 'who?', 'where?', 'when?', 'what?', 'why?', and 'how?', we call then CONTENT QUESTIONS or INFORMATION QUESTIONS. Questions (6) have an expected 'Yes' or 'no' answer and we call them YES-NO QUESTIONS or TRUTH-VALUE QUESTION.

12.4 Content questions

There are two differences to note between the questions and statements. One is that the questions include what is traditionally called an INTERROGATIVE ADVERB, a word like 'where?', 'when?', or 'how?', each is used to question a particular type of constituent. We will call them and other similar words INTERROGATIVE WORDS. In content questions, we sometimes say that the interrogative word allows us to QUESTION a particular category, function, or meaning. For example, (7a) questions an AdvP of location and (8a) questions time.

(7) a. Where does John eat corn?
b. John eats corn there.

(8) a. When does John eat corn?
b. John eats corn early.

The second difference between the questions and statements is that interrogative words questioning obliques occur at the beginning of the clause, but ordinary obliques occur at the end.

12.5 Yes-no questions

Yes/No questions normally have rising intonation. Let's compare the two sentences between a Yes/No-question and a statement.

(9) a. Is Pierre there?

b. Pierre is there.

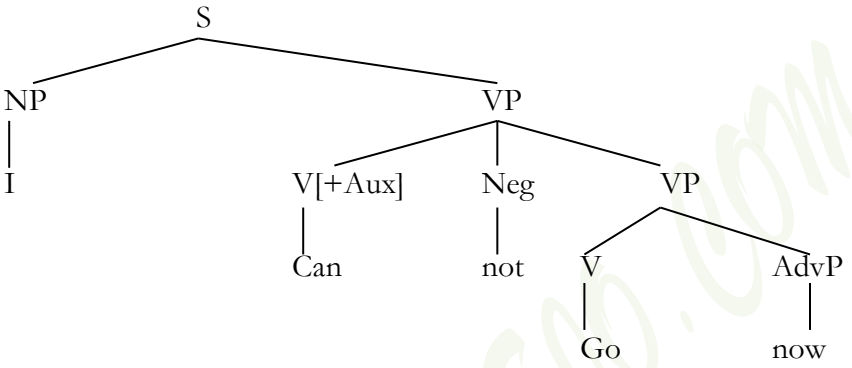
12.6 Change in word order

Another strategy for forming yes-no questions is a change word order, typically placing the main verb at or near the beginning of the sentence.

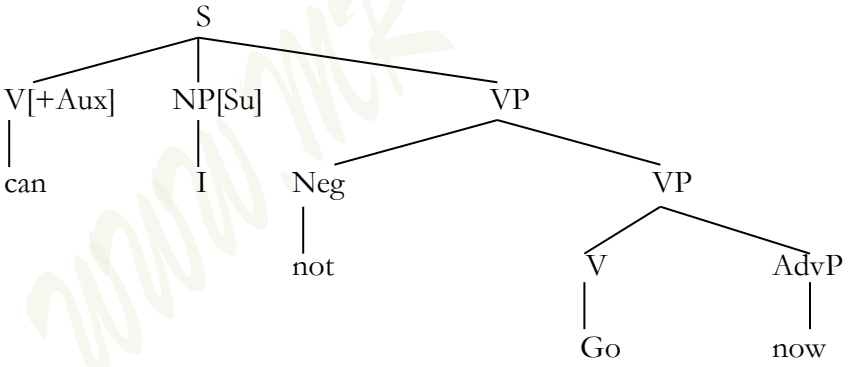
(10) a. Can I go now?
b. I can go now.

(11) a. can I not go now?
b. I can not go now?

This analysis assumes that auxiliary verbs are distinguished from other verbs in the lexicon by carrying the feature [Aux], when gets incorporated into deep structure trees such as the following for both (11a) and (11b).



To form the yes-no question (11b), we need an optional transformation which moves the auxiliary verb to the front of the sentence.



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