CHAPTER 5

Linguistic schools in the twentieth century

A Grammatical model of a language is an attempt to represent systematically and overtly what the native speaker of that language intuitively knows. A model is thus a system of rules that relates patterned sounds to predictable meanings and which reflects a speaker's ability to 'make infinite use of finite means'.

As yet, there is no model for English which totally satisfies all requirements for an adequate grammar of the language, although many models have been advanced and they all have their uses. We shall look briefly at the different models advanced in this century in Britain and in the United States and we shall indicate their respective strengths and weaknesses.

Traditional Latin-influenced models

Until the 1920s, most models of English were based on Latin, the grammar of which was itself based on Greek. Study of the nature and structure of language goes back at least as far as Plato and Aristotle for western European languages. Greek was comprehensively described by Dionysius Thrax towards the end of the second century BC. All Greek words were classified in terms of case, gender, number, tense, voice and mood. Three centuries later, Apollonius Dyscolus improved on the Thrax model by including rules for combining words into acceptable sentences.

Latin grammarians adopted the Greek model for their own language and, since Greek and Latin were structurally very similar, the belief grew that grammatical categories which were valid for Greek and Latin were valid for all languages. Vernacular grammars in Europe appeared as early as the seventh century (the first was a grammar of Irish) but since Latin was the language of religion and scholarship, English and other European languages were described according to Latin categories. Where they failed to match the Latinate system they were regarded as 'debased' or 'deficient' and, if it were possible, they were modified to resemble the Latin model. This model was particularly unsuited to modern English, which is virtually an uninflected language. Let us illustrate what we mean. In Latin, a noun like 'dominus' meaning 'lord' could be declined as follows:

	singular	plural
nominativ	dominus	domini
e vocative accusativ	domine dominum	domini dominos
e genitive	domini	dominoru
1	1	m 1 i i
dative ablative	domino domino	dominis dominis

Although Latin described six cases in the noun in both the singular and the plural, there are only eight distinct forms of 'dominus', the dative and ablative being the same and the genitive singular being identical in form to the nominative and vocative plural. Grammarians who followed the Latin model for English often declined English nouns as follows:

	singular		plural
nominative	lord		lords
vocative	O lord		O lords
accusative	lord		lords
genitive	lord's		lords'
dative	to the lord		to the lords
ablative	by/with/from	the	by/with/from the
	lord		lord

Notice, however, that there are only two distinct forms of 'lord', that is 'lord' and lords'. All the other distinctions are carried by prepositions, by an exclamatory 'O' or by the positioning of an apostrophe. If we pronounce the genitive singular, we will notice that it is identical in sound to the nominative plural, a feature that is shared by many Indo-European languages. The English verb system was even more distinct from Latin. If we consider only the simple present of 'portare' the equivalent of 'carry', we find that it is marked for person and number:

1st sing.	porto	I carry
2 nd sing.	portas	you (sing.) carry
3 rd sing.	portat	he/she/it carries
1 st pl.	portamus	we carry
2 nd pl.	portatis	you (pl.) carry
<i>3 rd pl</i> .	portant	they carry

The equivalent English system has only two distinct forms, namely 'carry' and 'carries' but marks the gender of the subject (as being masculine, feminine or neuter) in the third person singular.

Much of the **prescriptivism of school grammars derives from Latin models**. Stylists have argued that English sentences should not end with a preposition because prepositions could never occur at the end of a sentence in Latin. Such a claim overlooks the fact that, in Latin, a preposition always governed a noun or pronoun and therefore could not occur without a following nominal. English, however, has always permitted prepositions to occur in sentence-final position, especially in colloquial speech. Similarly, generations of students of English have been taught that such sentences as:

It's me. She's taller than me. are wrong: Latin had the same case before and after the verb *be* and so should English. This view, which tries to push English into a Latin mould, ignores the parallelism of such sets as:

He arrived before I did. He's taller than I am. He arrived before me. He's taller than me.

It also ignores the fact that, in English, 'me' is not only accusative. It is also the emphatic form of the pronoun:

Who's there? Me.

Latin-oriented grammars failed because they did not recognise that each language is unique in its organisation and patterns. Their strength lay in the fact that they recognised that languages were complex and flexible and that, at some level, languages were fundamentally similar.

Structuralism

This approach to languages developed in the US and illustrates the point that the development of any discipline is influenced by the cultural and political setting in which it evolves. In the early part of this century, grammars of languages produced in the US often differed considerably from those produced in Britain. The anthropological approach with its emphasis on the spoken medium was favoured in the US because of the existence of numerous unwritten and dying Amerindian languages. Linguists who worked on such languages carried over the skills and insights they acquired into their examination of English. In Britain, on the other hand, linguists spent a lot of time on Indic languages, many of which had long traditions of literacy and scholarship. British linguists, not unnaturally, paid more attention to the written medium and to orthographic systems.

Structuralism had one of its clearest statements in Leonard Bloomfield's Language, published in 1933. This model of grammar is still influential and worthy of detailed comment. Structuralists began with the premise that each language was unique and must be described in terms of its own individual patterning. They rejected such meaning- based definitions as 'a sentence is a group of words which expresses a complete idea', asking quite legitimately what an incomplete idea was, and they attempted to look on language study as a science where scientific precision would be required in all formulations.

Structuralists envisaged language as a highly structured, predictable system where one could move from sound to sentence, discovering the significant units at each level and providing rules for combining them. They started with sound and defined a 'phoneme' as the smallest unit of a language's sound system. Each language had an inventory of sounds and a linguist's task was to establish which phonemes were

significant in the language being described. One step above phonemes came 'morphemes'. These were composed of phonemes and were defined as the smallest unit of syntax. There were two kinds of morphemes, bound morphemes like 'un-' which could not occur in isolation and free morphemes like 'kind' which could. Free morphemes were equivalent to words. Word classes were determined by both form and function. Nouns, for example, differed in form between singular and plural, with plurality being indicated by means of adding /s/, /z/ or /1z/ to the singular, thus:

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gnat + /s/ > gnats

tree + /z/ > trees

horse + /1z/ > horses
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Nouns also fitted into such test frames as:

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funny good
(the)..... seemed very happy tired unreliable
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By means of examining forms and functions of words and by means of creating test frames, structuralists avoided relying on 'meaning' and they showed that English consisted of words belonging to **open classes and to closed** sets. **Open classes** were groups of words like nouns, verbs, adjectives and adverbs which were potentially openended, that is, it would be almost impossible to list all the nouns or verbs in English largely because new ones can be created and, in addition, words can move from one class to another. ('Motown', for example, was created by blending 'motor' and 'town'. 'Motor' was originally a noun but can also be used as a verb.) **Closed sets** were words like determiners and pronouns where the items in the sets could be exhaustively listed. Among the closed sets were auxiliary verbs and prepositions which were also described as 'function words' because their primary role was to express grammatical relationships. In the sentence:

Do you like cheese?

for example, the 'do' is there to form a question but has little semantic value. By means of such study, structuralists worked out that English **contained the following word classes:**

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nouns
verbs (headverbs and auxiliaries)
adjectives
adverbs
determiners
prepositions
conjunctions (co-ordinating and subordinating)
pronouns
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exclamations

This classification did not differ radically from the Latin-oriented model for English. Nor is this surprising in view of the fact that Latin and English are related languages. Where the structuralists did differ fundamentally from earlier linguists was: in giving priority to speech; in assuming that if native speakers used a structure regularly then that structure was correct; in ruling out reliance on meaning; in offering precise instructions for building phonemes into morphemes, morphemes into words, words into phrases, clauses and sentences; and in aiming to rely on verifiable, repeatable data.

Structuralists attempted to make the study of language as scientific as the study of chemistry. Their achievements were considerable and all subsequent models of English have utilised the discoveries and techniques of structuralism. They had weaknesses, however. Because they believed that all languages could be analysed in terms of elements in sequence, with successive elements being increasingly predictable, they undervalued the creativity of speakers and the fact that sentences could look alike and yet be very different. Such sentences as:

Bill asked me what to do.

and:

Bill persuaded me what to do.

look alike and were analysed identically by structuralists.

In the first sentence, however, Bill was to perform the action whereas 'I' was to perform it in the second. Their techniques worked beautifully for the regular parts of English:

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cat cat+s
mat mat+s
love love+d lov+ing love+s
shove shove+d shov+ing shove+s
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but were less satisfactory for the irregular parts:

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foot foot + plural = feet (and not 'foots')
man man + plural = men
drive drove driving drives driven
sing sang singing sings sung
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With all their evident strengths, structuralists concentrated on the surface of the language and were more interested in analysing data than in evaluating their discoveries.

Scale and category

This model of grammar is also referred to as 'systemic' grammar and it evolved mainly due to the work of the British linguist Michael Halliday. In its earliest draft (1961), scale and category dealt only with surface structure although later modified models were aware of both surface and underlying (or deep) levels of language. This model of English is based on the existence of choice within language. The essential idea is that at any given place in a structure the language permits choice, a choice that may be extremely large or quite limited:

Не	saw	his	friend	on	Monday
She	met	that	person	last	Tuesday
They	greeted	the	workman	on	Sunday
Bill	noticed	an	intruder	on	Friday

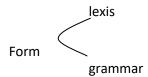
Even when we select such a simple sentence as 'He saw his friend on Monday' we can easily show that choice is available at every point in the sentence. It is most restricted with regard to 'on' and 'Monday' in that only 'on' and 'last' fit into the preposition slot and there are only seven weekdays. Generalising, we can show the choice by such a formula as:

Nominal + V_{past} + determiner + nominal + on/last + Xday

Scale and category grammar attempts to describe language, whether written or spoken, in terms of three primary levels:

substance
$$\leftrightarrow$$
 f \leftrightarrow form situation

Substance relates to sounds for the spoken medium (phonic substance) and to marks on paper for the written (graphic substance). Form is subdivided into two levels:



Lexis deals with the study of words, their shape and their ability to collocate with others. Grammar deals with the elements of a structure and with the relationships between elements. 'The blue light' and 'the light blue', for example, are both phrases but in the first phrase 'blue' modifies 'light'. We can show the similarities and differences in their structures as follows:

mthe mblue hlight mthe mlight hblue

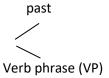
where the 'm' indicates that the words are in a subordinate or modifying role and the 'h' indicates the headword or word of prime significance in the phrase.

Situation takes into account such extralinguistic phenomena as gesture, non-linguistic noises, number of participants, time and place of occurrence. In other words, this level relates to J. R. Firth's idea of 'context of situation' which implied that an utterance could only be satisfactorily explained if the context in which it occurred was known. Let us take as an example the sentence:

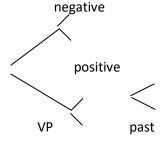
That'll do.

If this is said to a child, it is usually a reprimand and it is uttered with a particular intonation pattern. If, however, it is said to a shop assistant, it implies satisfaction on the part of the client. Meaning can thus be seen to depend not only on sounds, words and structures but on context as well.

In this model, phonology was seen as linking substance and form and four units of phonology were described for English, the phoneme (or smallest significant sound unit in English), the syllable (the sound or combination of sounds marked by one element of sound prominence), the foot (which marked stress patterns in a sequence of syllables) and tone (the intonation patterns in an utterance). The five grammatical units were morpheme, word, phrase, clause and sentence and these were ranked from the smallest, 'morpheme', to the largest, 'sentence'. In Scale and Category sentences were described according to 5 categories- S P O C A (Subject, Predicate, Object, Complement, Adjunct) and when the basic elements of the sentence had been described the aim was to establish systems which accounted for their form and their possible occurrence. This was done by setting up mutually exclusive features such as:



which indicates that a choice has to be made between the selection of the past and nonpast tense in English. A more elaborate system would take other factors such as negation and finiteness into account as follows:



The above is a very simple system network but it indicates one of the principal techniques of scale and category (systemic) grammar, which attempted to offer networks which would make explicit the relationships between all elements in a sentence.

This model was an advance on structuralism in that it tried to take into account the facts that language varies with situation and that choice is available at all levels of the language. (Later models have refined the definitions and have taken into account the creative ability of all native speakers.) Its main weakness was that it suggested that all sections of a language could be explained in terms of superficial binary contrasts.

Transformational generative grammar

In 1957 Noam Chomsky, an American, published Syntactic Structures, a statement of the principles of transformational generative grammar (TG). This grammar has had a profound effect on the study of all languages, including English. TG was a reaction against structuralism and the first model to acknowledge formally the significance of deep structure. We can only offer a very brief survey of the aims and characteristics of TG.

Transformational generative grammarians set themselves the task of creating an explicit model of what an ideal speaker of the language intuitively knows. Their model must assign a structure, therefore, to all the sentences of the language concerned and only to these sentences. As a first step towards this, Chomsky distinguished between 'competence', which he defines as 'the ideal speaker-hearer's knowledge of his language', and 'performance', which is 'the actual use of language in concrete situations'. Competence is, as it were, the perfect storehouse of linguistic knowledge. Performance draws on this knowledge but it can be faulty. The TG model attempts to formulate hypotheses about competence by idealising performance, that is, by dredging away performance accidents such as hesitations, unnecessary repetition, lack of attention, fatigue, slips of the tongue, false starts. TG is interested in competence and this interest marks the clearest difference between structuralism and TG.

A TG model has four main characteristics:

1. It must attempt to make explicit how a finite entity like the brain can operate on a finite set of items (words and structures) and yet generate an infinite set of sentences. The model must parallel the ideal speaker's competence and so it must be capable of generating an infinite set of sentences by the operation of a finite set of rules on a finite set of items. We can give an impression here of how that can be done. Let us suppose, for example, that we have the rules:

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S — NP + VP (sentence can be rewritten as noun phrase + verb phrase)
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$$NP - (det) + N$$
 (noun phrase can be rewritten as (determiner) + noun)

VP - V + NP (verb phrase can be rewritten as verb + noun phrase)

and suppose we have two nouns 'boys' and 'girls', three determiners 'the', 'some' and 'five', and three verbs 'love', 'hate' and 'trust', then

we can produce hundreds of sentences such as:

Teachers love/hate/trust girls.
Girls love/hate/trust teachers teachers.
Some teachers love/hate/trust girls.
Teachers love/hate/trust some girls.
Five teachers love/hate/trust the girls.
The teachers love/hate/trust some/five/the girls.

These sentences give a limited idea of the productive quality of even the simplest model.

- 2. Since the model attempts to describe the ideal speaker-hearer's linguistic knowledge and intuitions, it must be explicit. It must not fall back on intuition to ask whether a structure is or is not correct- If it used intuition to define intuition, the model would be circular and useless. A TG model must therefore be explicit and self-sufficient. Its raies alone must allow us to decide whether a structure is acceptable.
- 3. The model must have three components: a **phonological** component, a **syntactic** component and a **semantic** component so that it parallels the speaker's ability to associate noise and meaning.
- 4.Although the model must not rely on the intuition of a native speaker it must be in harmony with such intuition. In other words, it must be able to assign a structure to all sentences which would be accepted by a native speaker and reject all sentences which would be rejected by a native speaker.

The phonological component deals with phonemes and with the permissible combination of phonemes. As far as English is concerned, it offers rules for stress and intonation patterns as well. The work on phonology is an extension of the work done by structuralists, a refinement rather than a reappraisal, and this is the part of the TG model which has received least criticism. The semantic component deals with meaning and the interpretation of meaning. Much work has been done in this area and many have criticised Chomsky's techniques. It would be true to say, however, that less satisfactory work has been done with regard to semantics than with regard to phonology and syntax.

It is with regard to his treatment of syntax that Chomsky's approach differs most fundamentally from other models. TG is explicit about the fact that native speakers recognise two levels of structure. A speaker realises that:

Bill is easy to please Bill is eager to please

may look alike but are different at some level in that the first implies:

Someone pleases Bill

and the second:

Bill pleases someone

Similarly, a native speaker recognises that although:

Bill loves his father

looks very different from:

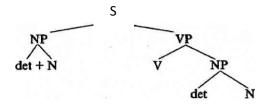
His father is loved by Bill

they are fundamentally very similar. To account for the two levels that a speaker intuitively recognises, a TG model splits the syntactic component into two parts: a base subcomponent and a transformational subcomponent. The base subcomponent generates (that is, assigns a structure to) the deep underlying pattern so that we can represent it by means of a tree diagram (also called a 'labelled bracketing' and a 'phrase marker'), thus:

$$S > NP + VP$$

$$NP > det + N$$

$$VP > V+NP$$



The transformational subcomponent works on a phrase marker and so generates a surface structure. Again, a brief example may help. The structure:

$$det + N + V + det + N$$

underlies thousands of transitive sentences such as:

The cat swallowed the mouse.

The transformational subcomponent accounts for the transformation of such a sentence into such variants as :

The mouse was swallowed by the cat.

The mouse was swallowed.

The swallowing of the mouse (by the cat)

and:

The cat's swallowing of the mouse.

Transformation rules allow the grammarian to explain:

1.deletion, for example A + B + C = > A + B:

Bill ran away and Ginger ran away => Bill and Ginger ran away

2.addition/insertion, for example, A + B = > A + B + C:

Go away => You go away

He has come => He has just come

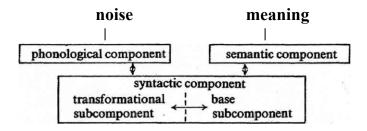
3.permutation, for example, A + B + C = >A + C + B:

Call Bill up => Call up Bill

4.substitution, for example, A + B + C => A + D + C:

Bill arrived and Harry went in =>On Bill's arrival Harry went in

In brief then, a TG grammar aims to pair a given string of noises with a given meaning by means of a syntactic component. The following diagram indicates how this may be done and stresses that a TG model is neutral with regard to production and reception. The arrows work both ways because a speaker can associate meaning with noise or noise with meaning:



The ultimate aim of TG is the understanding of language, of the universals common to all languages, and through this an understanding of the human mind.

Case grammar

One of the values of TG is the number of sub-theories which it stimulated. Among the most interesting of these is C. J. Fillmore's case grammar. Fillmore drew attention to the fact that with many verbs of change (for instance, *open, break*) essentially the same meaning could be expressed in surface structure with different nouns filling the subject slot as in:

Bill opened the door with a key.

The key opened the door.

The door opened.

It seems clear that, at some level, these three nouns **Bill, key** and **door** had a specified relationship with *open*. Fillmore suggested that in deep structure nouns are involved in a 'case' relationship with verbs. In some languages, like Latin, the relationships show up in surface structure as case endings, whereas in English they may be indicated by sentence position and the use of prepositions. According to Fillmore, case is universal in languages and the following eight cases are sufficient to account for the relationships between verbs and nouns.

1. Agentive: this case relates to the agent in a sentence, that is, to the animate instigator of the action or state identified by the verb:

Ginger made a dress.

The dress was made by Ginger.

Ginger was a dressmaker.

The dressmaker was Ginger.

'Ginger' is the deep structure agent in all of the above sentences, irrespective of its surface role or position.

2.Experiencer: this case relates to the animate being which is affected by the action or state identified by the verb:

Bill was warmed by the fire.

I threw the dog a bone.

The child believed in Santa Claus.

It infuriated Bill.

The underlined items above all 'experience' the activity of the verb.

3.Instrumental: this is the case of the inanimate force, object or cause which is involved in the action or state identified by the verb. Again, these are underlined in the following examples:

Ginger measured the curtains with a <u>ruler</u>.

The ruler measured the curtains.

The stone broke the window.

The curtains darkened the room.

4. Objective: this case is what Fillmore refers to as his 'waste basket'. It is the case which applies to items which are contained:

Bill filled his pipe with tobacco.

which move or undergo change or which are affected by

the action or state identified by the verb:

Smoke filled the air.

Bill saw the intruder.

He hit him with a stick.

He died instantly from the blow.

5. Source: this is the case which marks the origin or starting point of the action or state identified by the verb:

He drove from Bristol to Brighton.

She worked from morning until night.

The trouble began with a misunderstanding.

A misunderstanding caused the trouble.

6.Goal: this marks the case of the end point or objective of the action or state identified by the verb:

He drove from Brighton to Bristol.

He worked from morning until <u>night</u>.

He painted a picture.

She wrote a song.

7.Locative: this case specifies the spatial orientation of the action or state identified by the verb:

The rain in <u>France</u> stays mainly on the <u>plain</u>.

The case was filled with books.

The flat was very comfortable.

8. Temporal: this case identifies the time of the state or action identified by the verb:

Lectures end on <u>Thursday</u>.

We expected sunshine in the summer.

July is a pleasant month.

He arrived at noon.

Subsequent case models have varied the number of cases and aimed at greater precision but the above eight cases illustrate the techniques of case grammar. As far as English is concerned, it is necessary to fill the subject slot in all sentences except imperatives. This fact accounts for the use of dummy subjects in such sentences as:

It's raining.

where 'it' does not, in fact, refer to anything. In English, the subject slot can be filled by all the above cases:

Ginger broke the cup. (Ginger = agent)

Bill felt the pain. (Bill = experiencer)
The key opened the door. (key = instrument)
The cup was broken. (cup = object)
That song started the trouble. (song = source)
Brighton was big destination. (Brighton = goal)
It's pleasant in Greece. (Greece = location)
Spring is the loveliest time. (Spring = temporal)

The attraction of Fillmore's theory is that it applies to all languages. Every group of people expresses views regarding agents and experiencers; certain actions can only be performed with an instrument; when we plant seeds we expect to have a harvest, so we all understand sources and goals; and time and place are universal realities. In Fillmore's view each deep structure sentence involves a predicator and a number of cases:

$$S \rightarrow Predicator + Case_1 + Case_2$$
...........Case_n

and these case markings can differ in surface structure from language to language.

The weakness of this theory is that we really do not know much about 'deep' structure, about how it is constructed or even how far below the surface of language or languages we can probe. At the deepest level of all we are trying to probe the ways the mind works and, fascinating as that study is, it is only in its infancy.

Summary

The author have offered a very superficial account of five influential models of grammar. There are many others because as the flaws in one model become apparent, modified versions or new models are suggested. As we look back over the last eighty years we can see that each new model is a reaction against the perceived weaknesses of the prevailing traditions. Latin-oriented grammars lost favour because they failed to recognise the uniqueness of each language; structuralism was pushed aside because it concentrated too much on data and failed to proceed from the known to the unknown because it feared theoretical intangibles; TG and case models recognised the value of theory and the significance of what was going on beneath the surface. Their weakness is in not paying sufficient attention to surface structure where differences in form and content are most immediately apparent. Scale and category/systemic grammar has learnt much from both structuralism and TG but its potential has not yet been fully exploited.

All the above models and all the others that we have not examined have strengths as well as weaknesses. The answer to an obvious question - Which model is best suited to a study of contemporary English? - can only be answered when we have the answer to another question: For what purpose do we want the model? If a model is needed for teaching English to literate adults then there is much to be said for a Latinate model; if we want a model based on language which has actually occurred and which will be useful in everyday interaction, then structuralism is still unequalled. If however, we wish to go beyond the surface of language and if we wish to explore how surface structures are related then we should turn to the more recent models.

Two facts should be apparent from our study of models: one is that we have no totally adequate model of any language in the world. A language, as we have seen, is an abstraction based on the linguistic behaviour of people. As people change and circumstances change so the language will change. Linguists are thus trying to examine a phenomenon which is never static as long as it continues to be used by people. The second fact is that we need models for different purposes and our choice of a model or a synthesis of several models will be conditioned by our needs.

CHAPTER 5

Syntax

So far this study has concentrated on isolated words in the language but now we shall turn to words in combination. British linguists often use the term 'grammar' for the same level of language that is referred to as 'syntax' by many Americans. The differences in the terminology will become clear in related Chapter when various models of grammar are examined. For the moment the main emphasis will be on the level of language that examines how words combine into larger units. We shall study only three of these units - the phrase, the clause and the sentence - and we shall provide straightforward, traditional definitions. Different linguists, however, often define terms differently. Structuralists, for example, 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.

There is value in each approach. 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.

The phrase

For our purpose, we can define a phrase as a group of words which functions as a unit and, with the exception of the verb phrase itself, does not contain a finite verb. Consider this definition by examining a few sentences. In:

The little boy sat in the corner.

we can replace 'the little boy' by 'He' and 'in the corner' by 'there'. Notice that in both examples we replace a number of words by one. Similarly, if we ask: 'Who sat in the corner?' the answer will be 'The little boy' or if we ask: 'Where did he sit?' we will be

told 'In the corner'. It is thus clear that certain groups of words have internal coherence in that they function as a unit. We have also said that a phrase does not contain a finite verb, so now we shall look at what a finite verb is.

A finite verb is one that can take as its subject a pronoun such as 'I', 'we', 'he', '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 the present participle (that is, forms such as 'seeing'), the infinitive (that is, forms such as 'to see') and the past participle (that is, forms such as 'seen') are non-finite verb forms. 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 phrase 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 show:

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 (that is, usually preceding but occasionally following a noun):

The child, laughing happily, ran out of the house.

That <u>utterly fascinating</u> 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:

to have sung

A simple sentence can have only one finite verb phrase: He may be following us. but a complex sentence may have several finite verb phrases:

When he <u>was invited</u> to give a lecture, he <u>was told</u> that all reasonable expenses <u>would</u> be refunded.

(4) An adverb phrase is a group of 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 <u>next year</u>.

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.

A number of modern linguists use the term 'phrase' in a slightly different way to that described above. They compare such sentences as:

The young man has arrived.

and:

He arrived.

pointing out that 'he' functions in exactly the same way as 'the young man' and 'arrived' in exactly the same way as 'has arrived'. Concentrating on the similarity of function, they 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.

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

He <u>arrived</u> at two. He <u>will arrive</u> at two.

Both uses have value. A student must be aware of the different values attached to the same word but must also be consistent in his own use.

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. In each complex sentence, we have at least two clauses: a main clause (that is, a clause that is most like a simple sentence) and at least one subordinate or dependent clause. In the following examples, the main clauses are underlined:

He believed that the earth was round.

He arrived as the clock was striking.

The following types of subordinate clause are found:

1. A **noun** clause is a group of words containing a finite verb and functioning 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 clauses can often be replaced by pronouns:

He said this.

When you are in doubt about how a clause functions in a sentence, you should see what can be substituted for it. All the following possibilities are acceptable:

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

Thus, pronouns, 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.

When an adjective/relative clause begins with 'that/which/whom' and is followed by a subject, the subordinator can be omitted:

The book (that) John bought is missing.

The coat (which) she wore is red.

The man (whom) we met was my uncle.

There is virtually no difference in meaning between:

The book which I bought

and:

The book that I bought.....

or

The book I bought.....

although the third is the least formal and so the most likely to occur in spontaneous speech. 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.

It is usually easy to decide whether a 'when/where' clause is adjectival or adverbial. If the 'when' can be replaced by 'on which' and the where' by 'in which/at which' we are dealing with adjective clauses.

3. An adverbial clause functions like an adverb in giving information about *when*, *where*, *why*, *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.

Adverbial clauses are perhaps the most frequently used clauses in the language and, like adverbs, they are often mobile:

When he arrived we were all sleeping.

We were all sleeping when he arrived.

A number of modern linguists use the term 'clause' somewhat differently to the above classification. They call units containing a finite verb 'finite clauses' and units containing non-finite verb forms such as 'to see', 'seeing' and 'seen', 'non-finite clauses'. A few examples will illustrate their usage. In the following sentences:

He went to Paris because he wanted a rest.

He went to Paris to have a rest.

both underlined units tell us why he went to Paris but only the first one contains a finite verb. Similarly with:

When he heard the results he went home.

On hearing the results he went home.

and:

If it is looked at from this angle the colours seem to change.

Looked at from this angle the colours seem to change.

the underlined units function in similar ways, being distinguished mainly by the fact that the first examples contain finite verbs and the second examples non-finite verbs. Linguists who concentrate on the formal distinction, that is, the occurrence or non-occurrence of a finite verb in a unit, classify such units as clauses and phrases respectively. Those who concentrate on the functional similarities classify both these units as clauses, distinguishing between them in terms of whether the verb used is finite or non-finite. Thus all linguists will agree that the underlined units in the following sentences function as subjects:

His behaviour is understandable.

To behave in this way is understandable.

Whatever he does is understandable.

but they will classify these subjects according to their preferred model. What is important is to be consistent in one's use of terminology.

The sentence

In 1952 C. C. Fries examined over two hundred definitions of 'sentence' in the hope of finding the most useful. He discovered that, as with so many grammatical units, it is easier to show what they look like than to say what they are. Thus the following are sentences:

The man died.

The dog chased the cat.

The girl is a good student.

That child is very tall.

The boy ran up the hill.

They can exist independently, do not rely on any other unit and can be interpreted without reference to any other piece of language. Fries decided that the most workable definition of sentence was the one that had been provided by Bloomfield in 1933, according to which:

Each sentence is an independent linguistic form, not included by virtue of any grammatical construction in any larger linguistic form.

All the above examples fit this definition. 'The man died', for example, is independent in a way that 'when the man died' is not. This clause depends on such a construction as:

They were all very sad (when the man died).

An even simpler categorisation of 'sentence' can be applied to the written medium in that we can define a sentence as 'that linguistic unit which begins with a capital letter and ends with a full stop'. Both these definitions of 'sentence' are useful but it will be worth our while to study further both the types of sentences that occur in English and their internal construction.

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't you hear that awful noise? When did he arrive?
Why don't they play cricket here?
You will notice that there are two types of interrogative question, those which expect the answer $`yes"$ or $`no"$:
Can you sing?
Are you going to the wedding?
and those which begin with the question words what?, where?, which?, who?, whom?, why?, or how? and which expect an answer other than yes or no.
4. Exclamatory sentences are used to express surprise, alarm, indignation or a strong opinion. They are differentiated from other sentences by taking an exclamation mark: He's going to win!
You can't be serious!
What a fool I was!
I've never heard such rubbish in all my life!
Sentences can also be classified as being either major or minor . All the examples above are major in that they contain finite verbs. Minor sentences do not contain finite verbs and they are frequently found in colloquial speech:
Got a match?
Not likely!
Just a minute!
in proverbial utterances:

Out of sight, out of mind.

In for a penny, in for a pound.

and in advertising:

Always ahead of the times.

The cheapest and best.

Apart from the above categorisations of sentences, we often find it useful to distinguish between sentences which are 'simple', 'compound' or 'complex'.

Simple sentences contain only one finite verb:

Water boils at 100° centigrade.

You must not say such things.

The finite verb may be composed of up to four auxiliaries plus a headverb:

He may have been being followed all the time.

and may be interrupted by a negative or an adverb:

He was never seen again.

We can hardly ask them for pay more.

The term 'simple' refers to the fact that the sentence contains only one finite verb. It does **not** imply that the sentence is easy to understand. The following sentence, for example, is simple in structure but semantically it is quite difficult:

Quangos are quasi-autonomous, non-governmental organisations.

Compound sentences consist of two or more simple sentences linked by the coordinating conjunctions: and, but, so, either ... or, neither... nor, or, then and yet:

He ran out and (he) fell over the suitcase.

She arrived at nine, went up to her room and did not come down until noon.

He could neither eat nor sleep.

In compound sentences, the shared elements in the conjoined simple sentences can be elided:

You may go in and (you may) talk to him for five minutes.

Complex sentences consist of one simple sentence and one or more subordinate (or dependent) clauses. In the following sentence:

She became queen when her father died because she was the eldest child.

we have one main clause:

She became queen and two subordinate clauses:

when her father died and:

because she was the eldest child.

You will notice that each clause has a finite verb, 'became', 'died' and 'was' in the example above, and that each subordinate clause begins with a subordinating conjunction. The commonest subordinating conjunctions in English are:

after:	She washed the dishes after she had cooked the meal.	
	had cooked the mear.	
although	Although they were poor, they	
/though:	were honest.	
as:	As John says, it's time to go.	
as (as):	He is as tall as his father was.	
because:	He left the town because he did not like crowds.	
before:	He arrived before we did.	
if:	If you try hard you will certainly succeed.	
since:	I have not seen him since we left grammar school.	
until/till:	He worried about everything until his daughter arrived.	
when:	Time passes quickly when you are happy.	
where:	He built his home where his ancestors had lived.	
whether,	John is the best runner whether	
or not:	he knows it or not.	
which/that:	This is the house which/that Jack built.	
while:	Do not cross the tracks while the lights are red	
-		

Subordinate clauses are characterised by the fact that they cannot occur alone. They depend on a main clause. In some modern descriptions, subordinate clauses are called 'embedded sentences' because they resemble simple sentences but are modified so as to fit into other constructions. We can have, for example, the two simple sentences:

The man arrived late. and:

The man wore a large hat.

The second is embedded in the first when we transform the two simple sentences into the complex one:

The man who wore a large hat arrived late.

Compound-complex sentences are, as their name suggests, a combination of complex sentences joined by co-ordinating conjunctions: I saw him when he arrived the first time but I didn't see him when he came again.

We have looked at the types of sentences that can occur and will now focus on the internal structure of a sentence. The basic pattern of the simple English sentence is: (Adjunct) (Subject) Predicate (Object) (Complement) (Adjunct) usually given as:

(A) (S) P (0) (C) (A)

where only the predicate is essential and where the adjunct is mobile.

A few simple examples will show how the formula works.

Such sentences as:

The man disappeared.

The poor young woman died.

divide into two parts, a noun part:

The man

The poor young woman

and a verb part:

disappeared

died

We call the noun part a 'subject' and the verb part a 'predicate'. We know that the subject is a unit because we can substitute 'he' for 'the man' and 'she' for 'the poor young woman'. The verb part can usually be retrieved by asking such questions as 'what did he do?/what has he done?' and omitting the pronoun in the answer. Notice that if our first sentence had been:

The man has disappeared.

our question would retrieve the whole predicate, in this case 'has disappeared'.

In the sentences:

The man disappeared yesterday.

Quite suddenly the man disappeared.

the underlined segments are called 'adjuncts' because they can usually be deleted without causing grammatical loss. (Their removal would, of course, result in loss of information.) These adjuncts are usually quite mobile:

Suddenly the man disappeared.

The man suddenly disappeared.

The man disappeared suddenly.

If we take a different type of sentence:

John won't eat his breakfast.

we see that it splits up into three parts: the subject 'John', the predicate 'won't eat' and the object 'his breakfast'. The object resembles the subject in that it is noun-like, but there are three main differences:

- 1. The subject normally precedes the predicate. The object normally follows the predicate.
- 2. The subject can usually be retrieved by putting **who** or **what** before the predicate, 'Who won't eat his breakfast?' produces the answer 'John', the subject. The object can be retrieved by putting 'whom' or 'what' after the predicate: 'John won't eat what?' produces the answer 'his breakfast', the object.
- 3. When subjects and objects are replaced by pronouns, there is often a different pronoun for the two positions:

John hit Peter. He hit him.
Mary hit Betty. She hit her.
John and Mary hit Peter and Betty. They hit them.

Adjuncts can occur in most sentences: Usually John won't eat his breakfast. John won't eat his breakfast usually. Looking now at such sentences as: John is a fine teacher. Mary is becoming an excellent athlete.

we see that we again have three parts, but there is a fundamental difference between these sentences and sentences of the type Subject Predicate Object in that 'John' = 'a fine teacher' and 'Mary' = 'an excellent athlete'. Such sentences always involve such verbs as *be, become, seem*, and *appear* and *grow* when they are used in such constructions as:

He appeared the best choice. He grew weary.

These verbs take 'complements' and the complements can be a noun phrase:

He was a first-class sportsman.

an adjective:

She is becoming insolent.

a preposition + a noun phrase:

He was in the bus.

and occasionally an adverb:

The fire is out.

The complements above are called 'subject complements' because they provide information on the subjects. We can also have 'object complements' as in:

They elected John President.

John called his son Peter.

Again, you will notice that the object 'John' is the same as 'President' and 'his son' as 'Peter'. Sentences involving complements can also have adjuncts:

John was a candidate yesterday. They elected John President yesterday.

We can summarise the above data with examples as follows:

P Go.

PA Go quietly.

SP John slept.

SPA John slept quietly.

PO Eat your breakfast.

SPO John ate his breakfast.

SPOA John ate his breakfast quickly.

SPC John is a fool.

ASPC At times John is a fool.

SPOC John called his brother a fool.

SAPOC John often called his brother a fool.

In our examination of sentence patterns, four operations will prove useful. They are **insertion**, **deletion**, **substitution** and **transposition** (also called **permutation**). We can illustrate these operations as follows:

Insertion: This would involve changing such a sentence as:

The child is clever.

into:

The little child is exceptionally clever.

Deletion: In the sentence:

The tall man saw him last Friday.

we can delete the adjective 'tall' and the adjunct 'last Friday' leaving the grammatically acceptable:

The man saw him.

Substitution: In such sentences as:

The young man visited his mother.

we can substitute pronouns for both subject and object:

He visited her.

Often too, auxiliary verbs can replace verb phrases:

He might have come, mightn't he?

where 'mightn't he' substitutes for 'might he not have come'.

Transposition: This involves the mobility of sentence constituents and we have already seen how adjuncts can be transposed/moved from one part of a sentence to another. Other sentence constituents are less mobile, but occasionally, for effect, an object may precede both subject and predicate:

Three men I saw.

However, such a sentence is much less usual than 'I saw three men'.

Above The Sentence

So far our analysis has been confined to the level of the sentence or below, yet sentences in a coherent piece of prose interact, as the following example illustrates:

Thomas Gainsborough, who was to become one of the greatest English painters, was born in 1727 in Sudbury in Suffolk. As a boy he seemed interested in only drawing and sketching. One day he saw a man robbing an orchard. Young Gainsborough made a sketch of the man and it was so good that the robber was recognised from it and arrested. At fifteen he was sent to London to study art. He returned to Sudbury when he was eighteen and began painting portraits. He got married at nineteen. In 1760 he went to Bath, then a very fashionable resort.

The cohesion of the above text depends on a number of factors including:

1.consistency of vocabulary: many items belong to the semantic field of art, for example, painters, drawing, sketching, sketch, art, painting, portraits; and time is frequently indicated, for example 1727, as a boy, one day, at fifteen, eighteen, nineteen, 1760.

2.consistency of time references: the entire passage is in the past and there are no sudden switches to the present or the future.

3.linkage: looking closely at the text we see that there are a number of links between the sentences. In particular, we might mention: he... he. ... a man... the man... it.... it. ... he. ... He. ... he. ... He... he... then

Linkage is a means of interrelating syntactically complete sentences and there are eight main types of linkage apart from consistency of vocabulary. These are:

a.units that suggest addition, for example: as well as, furthermore, in addition, together with

b.units which suggest alternatives, for example: either or, on the other hand, otherwise

c.units which suggest sequences, for example: first, to begin with, to conclude, and then

d.units which suggest cause and effect, for example: because, hence, so, therefore

e. units which suggest conditions, for example: as long as, if, providing, on condition that, unless

f.units which suggest time, for example: afterwards, earlier, later, on another occasion

g.noun substitutes, for example: demonstrative pronouns, personal pronouns, the former, the latter

h.verb substitutes, for example: auxiliary verbs and do.

Grammatical, acceptable, interpretable

It is perhaps appropriate to consider the meanings of these three words as they apply to language. A piece of language is 'grammatical' if it does not break any of the rules of the standard language. Thus:

The cat died.

is grammatical as is:

The cat that the dog chased died. and so is:

The cat that the dog that the man hit chased died.

Most native speakers would not, however, accept the third sentence. It is certainly grammatical in that all we have done is add one adjective clause that describes the dog. The result, however, is three consecutive verbs and this is unacceptable. It is unacceptable **in form** rather than in *content* as is clear if we look at an acceptable version of the above sentence:

-This is the man that hit the dog that chased the cat that died.

As soon as the adjective clauses occur at the end of the sentence we can accept <u>any</u> number of them. When they are embedded within a sentence, most people cannot accept more than two adjective clauses.

If we now look at sentences which are ambiguous, we find a second type of unacceptability. A sentence such as:

-Their designs were unacceptable.

cannot, out of context, be interpreted as having one meaning. Here 'designs' could mean either 'drawings' or 'intentions'. When the ambiguity resides in the word it is called 'lexical ambiguity' and this is a common feature of English and of many other languages. At its most extreme, we can have a word like 'cleave' which can mean both 'adhere to/cling to' and also 'open up/separate'. With most words, however, the meanings are related as when 'chip' can refer to a small piece of *wood*, of *potato* or of *silicon*. As well as lexical ambiguity, we have syntactic ambiguity where a structure is capable of more than one interpretation. In English, the structure:

 $V_{ing} + noun$

is the most frequent cause of syntactic ambiguity.

-Visiting relatives can cause problems.

is ambiguous because it can mean both:

- -Relatives who visit us can cause problems and:
- -When we visit relatives there can be problems.

Headlines in newspapers are a common source of syntactic ambiguity partly because of the need for compression. The following recent headline, for example: "Pay Cuts Problems" is capable of two contradictory interpretations:

'The pay settlement will reduce problems' and 'Here are the problems associated with cuts in pay'.

Sentences involving ambiguity thus lead to problems of interpretation. In speech or in continuous prose such ambiguities are rarely noticed because the context of situation or the use of intonation and stress makes one interpretation most probable. In isolation, however, in the written medium, a unique interpretation is often impossible.

Samples of non-standard English are usually interpretable although they are ungrammatical according to the rules of the standard language. If a speaker, for example, says:

*I seen him yesterday.

most listeners have no problem interpreting this. Similarly, few would experience problems in interpreting:

*Pass me them boots.

*He did it for to please his friend.

Thus interpretability does not depend directly on grammaticality.

Where the sample of language deliberately frustrates the expectations of a language user, as when an inanimate noun is made to collocate with a verb that needs an animate subject, as in:

*Gentleness admired the view.

*Happiness broke its leg.

then the result will be neither grammatical, nor acceptable, nor interpretable.

We should add that what has been called 'poetic licence' allows poets to exploit language in ways which would be unacceptable in normal circumstances. The American poet E.E. Cummings (who refused to use capital letters or full stops after his initials) produced such lines

as:

anyone lived in a pretty how town

four fleet does at a gold valley

the famished arrow sang before

which are certainly not intelligible out of context. And when the linguist, Noam Chomsky, created a sentence which deliberately frustrated our expectations:

Colourless green ideas sleep furiously.

(colourless cannot be green; ideas cannot be green; ideas cannot sleep; sleeping is a passive experience) several poets insisted that, for them, the sentence was acceptable.

Summary

We have now looked at the syntax of the language and seen the flexibility that can be exploited by users of English. It is worth remembering that complex structures are not necessarily a feature of good style and also that effective communication relies on a structure being grammatical, acceptable and interpretable.

Exercises

- 1.Pick out and classify the phrases in the following sentences. (Example: The young boy will be running very fast'. Here we have three phrases: a noun phrase 'The young boy', a verb phrase 'will be running' and an adverb phrase 'very fast'.)
 - 1.Please send me three boxes of biscuits on the 14th of July.
 - 2. All the children seemed extremely happy.
 - 3. She couldn't go to the Pete because of her bad cold.
 - 4. To have played football for Manchester United was his greatest achievement.
 - 5. The boy will have arrived in Spain by this time.
 - 2. Write down all the clauses in the following sentences saying whether they are main or subordinate clauses and
 - 1.I shall always remember what you said.
 - 2. When we arrived everyone was asleep.
 - 3.It was what everyone had feared.
 - 4.He arrived on the very day when we were celebrating your birthday.
 - 5. The hat which I bought was the wrong colour.
 - 3. Turn the following sentences into (a) imperatives and (b) interrogatives.
 - 1.He will come at eight o'clock.
 - 2. She doesn't do that.
 - 3. She tries to help.
 - 4.He doesn't play cricket.
 - 5. You can't be serious!
 - 4. Classify each of the following sentences according to whether they are (a) major or minor and (b) simple, complex or compound.
 - 1. Not on your life!
 - 2. What will we do if they don't turn up?
 - 3.One man one vote.
 - 4.He ran into the room, picked up his coat and ran out again.
 - 5. Often it is impossible to say whether they are telling the truth or not.
 - 6. The man whom we met at the party and whom we later invited home has just rung to say he can't come tonight.
 - 7. Anything goes!

- 8. The whitest wash and the sweetest-smelling wash tool
- 9.Don't count your chickens before they are hatched.
- 10. Out of sight out of mind.
- 5. Select any short passage of either prose or poetry and list **all** the ways in which the sentences are linked.

CHAPTER 5

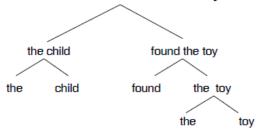
SENTENCE STRUCTURE: Syntactic rules determine the order of words in a sentence, and how the words are grouped.

The boy found the toy.

- 1. (the child) as the subject
- 2. (found the toy) as the predicate

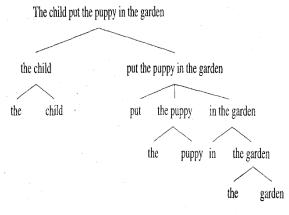
It is often easier to see the parts and subparts of the sentences in a tree diagram:

The child found the toy.



The groupings and subgroupings reflect the hierarchical structure of the tree.

The "tree" is upside down with its "root" being the entire sentence, *The child found the puppy*, and its "leaves" being the individual words, *the, child, found, the, puppy*. The tree conveys the same information as the nested parentheses, but more clearly. The groupings and subgroupings reflect the hierarchical structure of the tree.



4. SYNTACTIC CATEGORIES: A syntactic category is a family of expressions that can substitute for one another without loss of grammaticality.

Examples of Syntactic Categories:

- **A police officer** found the child.
- Your neighbour found the child.
- This yellow cat found the child.
- **He** found the child.

Syntactic Categories:

- Phrasal Categories
 - Noun Phrase
 - Verb Phrase
 - Prepositional Phrase
- Lexical Syntactic Categories
 - Noun
 - Pronoun
 - Verb
 - Adjective
 - Preposition
 - Adverb
 - Determiner
 - Sentence

A. Noun Phrase:

■ NP (noun phrase) \rightarrow Art (article) + N (noun)

(A noun phrase may be a determiner (article) followed by a noun.)

Eng: the woman

Tur: kadın

■ $NP \rightarrow Art$ (article) + Adj (adjective) + N (noun)

(A noun phrase may be an article followed by an adjective which is followed by a noun.)

Eng: the young woman

Tur: genç kadın

• **NP** \rightarrow **Pro** (pronoun)

(A noun phrase may be a pronoun alone.)

Eng: She cried.

Tur: bağırdı. / O bağırdı.

■ $NP \rightarrow Art + (Adj) + N$

(A noun phrase may be an article followed by zero, one, or more adjectives followed by a noun.)

Eng: the attractive young ... woman

Tur: çekici genç ... kadın

$\blacksquare NP \to \underline{Art + (Adj) + N}$

Pro

(A noun phrase may be an article followed by zero, one, or more adjectives, followed by a noun; or it may be a pronoun alone.)

B. Verb Phrase:

• A verb alone:

The woman fell.

$$VP \rightarrow V$$

• A verb followed by a noun phrase:

The woman saw the murderer.

$$VP \rightarrow V + NP$$

• A verb followed by a noun phrase followed by a prepositional phrase:

The woman put the cake in the cupboard.

$$VP \rightarrow V + NP + PP$$

• A verb followed by a prepositional phrase:

The child laughed at the clown.

$$VP \rightarrow VPP$$

(A verb phrase may be a verb, optionally followed by a noun phrase, or a prepositional phrase, or optionally by both a noun phrase and a following prepositional phrase.)

C. Prepositional Phrase:

■ $PP \rightarrow P + NP$

at home, at the airport, etc

(A prepositional phrase is a preposition followed by a noun phrase.)

D. Sentence:

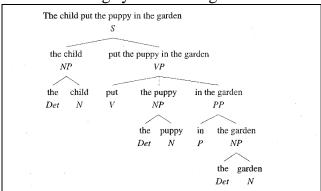
■ $S \rightarrow NP + VP$

(A sentence may be a noun phrase followed by a verb phrase.)

This phrase structure rule corresponds to what most school children learn as "Every sentence has a subject and a predicate."

5. PHRASE STRUCTURE TREES:

A tree diagram with syntactic category information provided is called a phrase structure tree. Sentences have structure that can be represented by phrase structure trees containing syntactic categories.



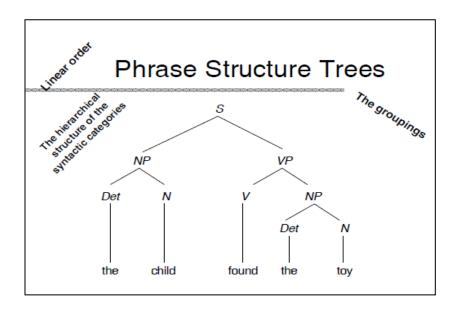
Phrase structure trees are graphic representations of a speaker's knowledge of the sentence structure in their language.

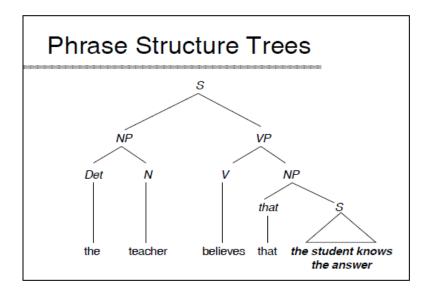
Three (3) aspects of syntactic knowledge are represented in phrase structure trees:

- 1. The linear order of the words in the sentences
- 2. The groupings of words into syntactic categories
- 3. The hierarchical structure of the syntactic categories

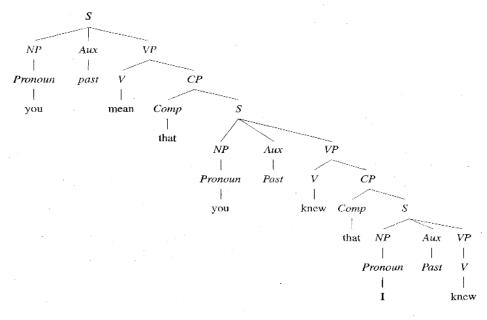
(e.g. A Sentence is composed of a NP followed by a VP.

a VP is composed of a V that may be followed by a NP, and so on...)





Now, we will analyze a sentence and see the phrase structure tree of that sentence : <u>Sentence</u>: *You mean that you knew that I knew*.



Here are the phrase structure rules we have discussed so far. These are all the phrase structure rules we will present in this chapter. f^+

- 1. $S \rightarrow NP Aux VP$
- 2. $NP \rightarrow (Det) (AP) N (PP)$
- 3. $VP \rightarrow V$ (NP) (PP) (Adv) (CP)
- 4. $PP \rightarrow P NP$
- 5. $AP \rightarrow Adj (PP)$
- 6. $CP \rightarrow Comp S$

2. STRUCTURAL AMBIGUITY:

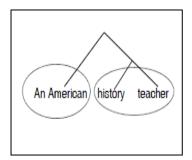
As we mentioned earlier, certain ambiguous sentences have more than one phrase structure tree. Each tree corresponds to a different meaning.

Example:

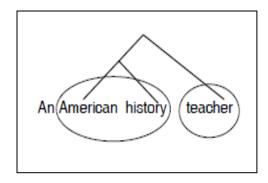
Look at this phrase : An American History Teacher

There are two meanings in this phrase:

- 1. He is American. He is a teacher of history.
- 2. He is a teacher of *American history*.
- 1. He is American. He is a teacher of history.

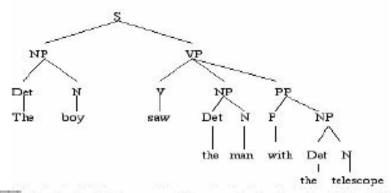


2. He is a teacher of American history.

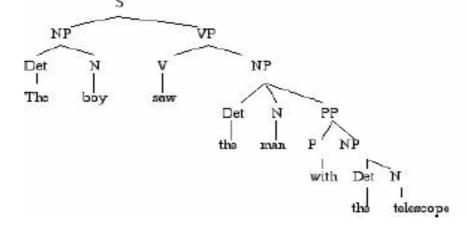


The boy saw the man with the telescope.

Meaning 1: The boy used a telescope to see the man.



Meaning2: The boy saw the man who had a telescope.



7. SURFACE AND DEEP STRUCTURES:

Every sentence exists on two levels:

- 1. The Surface structure which corresponds to the actual spoken sentence.
- **2.** The Deep structure which underlies meaning of the sentence.

Thus, the single deep idea can be expressed in many different Surface Structures.

Examples: Grandson loves his grandfather (deep structure).

The grandson kissed his grandfather's hand. (surface structure).

The grandson was kissing his grandfather's hand. The grandfather was kissed by the his grandson. (surface and deep structure).

The deep structure shows the semantic components, but the surface structure shows the proper phonological information in order to express that thought. Thus deep structures generate surface structures through some *transformational rules*.

The distinction between 'deep structure' and 'surface structure' permits us to explain ambiguous sentences such as: Visiting professors can be boring.

The ambiguity is due to the fact that the same surface structure derives from two deep structures.

8. TRANSFORMATIONAL RULES:

Transformational rules account for sentences whose surface structures are different, but have the same meaning, such as:

- Mary hired Bill, - Bill was hired by Mary.

They do this by deriving multiple surface structures from a single deep structure. Much of the meaning of a sentence is interpreted from its deep structure. So transformational rules permit the grammarians to explain:

• 'deletion' $A+B+C \rightarrow A+B$:

The cat disappeared and the dog disappeared \rightarrow The cat and the dog disappeared;

- 'addition/insertion, $A+B \rightarrow A+B+C$:
 - 'Get out! \rightarrow Get out of here!;
- 'permutation' A+B+C→ A+C+B Call Mary up→ Call up Mary;
- 'Substitution' $A+B+C \rightarrow A+D+C$

Joseph arrived at home and Mark left the house→ On Joseph's arrival at home Mark left the house

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