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Essentials of English Linguistics

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Preface

The book is intended as an introduction to English linguistics for students entering on the study of the English language at Faculties of arts and Pedagogical faculties. It has been written with the purpose of filling the existing gap in the available literature on general linguistics, and in this way to help both students and teachers.

However, since the scope of the book surpasses the immediate requirements of an introductory course, it may also be helpful to students within specialized disciplines. In addition, it may be used by undergraduates when preparing for the state-leaving examinations.

It should be noted that it is not an easy task to write a book on general linguistics. This is because linguistics - just like other sciences - has been dynamically developing, which is reflected in new linguistic conceptions such as computational linguistics, semantics, sociolinguistics, psycholinguistics, text linguistics, speech-act theory, discourse analysis, hermeneutics, etc. In addition, traditional approaches are re-evaluated and/or completed. Moreover, there are no clearcut boundaries separating the field of general linguistics, on the one hand, and that of specialized disciplines, on the other hand.

Nevertheless, I have tried to cover the fundamental issues of "traditional" linguistic disciplines whose comprehension is a necessary precondition for the study of more specialized linguistic topics. At the same time, I have reserved two chapters to point out that language is a social phenomenon which has been developing all the time and which undergoes changes due to both its internal laws as well as external factors. The last two chapters are focused on two streams in linguistics which have come to be the most influential in this century and from which all the latest theories, conceptions, approaches develop. From this, it follows that the comprehension of fundamental terminology and ideas of structuralism and transformational and generative grammar should be an indispensable part of general linguistic knowledge.

A book like this cannot bring new ideas and new solutions to linguistic problems. Its task consists, in my view, in offering the students basic terminology as well as a range of different approaches to fundamental linguistic problems. Hence, I have tried to reduce my personal comments on individual problems to a minimum and rather provide a review of opinions by combining both traditional and the most recent approaches. I believe that the method chosen will enable the students to achieve an adequate understanding and picture of the subject as a whole.

ABBREVIATIONS

A	Adjective
Adv	Adverb
AE	American English
Aux	Auxiliary
C	Tense
Conj	Conjunction
d	Determiner
h	Head
IA	Item & Arrangement
IE	English spoken in Ireland
ind	Indicative
IP	Item & Process
m	Modifier
M	Mood
ModE	Modern English
N	Noun
NE	Northern English
NP	Noun phrase
OE	Old English
pl	Plural
PP	Past participle; Prepositional phrase
prep	Preposition
pres	Present tense
q	Qualifier
RP	Received Pronunciation
S	Sentence; Subject
SE	Southern English; Standard English
sg	Singular
T	The
V	Verb
VP	Verb phrase
WP	Word & Paradigm

Chapter I

The Origin and Development of the English Language

1 GENERAL

The first people in England about whose language we have definite knowledge are the **Celts**. The Celtic languages in England can be divided into two branches: the **Gaelic** or **Goidelic** branch and the **Cymric** or **Britannic** branch. Celtic was the first Indo-European language to be spoken in England and is still spoken by a considerable number of people. The Gaelic language is represented today by the **Irish, Scotch, Gaelic** and **Manx** languages. The modern representatives of the **Britannic** division are **Welsh, Cornish,** and **Breton**.

Another language, **Latin**, was spoken rather extensively for a period of about four centuries before the coming of English. Latin was introduced when Britain became a province of the Roman Empire.

In 55 B.C. Julius Caesar decided upon an invasion of England. The expedition almost ended disastrously, and his return the following year was not a great success either. It was only the next summer when he succeeded in establishing himself in the southeast, but after a few encounters with the natives he withdrew from the island. It was in 43 A.D. that the Emperor Claudius decided to undertake the actual conquest of Britain. Within three years he subjugated the tribes of the central and south-eastern regions. Subsequent campaigns soon brought almost all of what is now England under Roman rule. Four great highways soon spread fanlike from London. Numerous lesser roads connected important military or civil centres. The Romans built up a score of small cities, towns and villages, and introduced their economic and cultural way of life. This was connected with the growing influence of the Latin language, though Latin did not replace the Celtic language in Britain. Its use by native Britons was probably confined to members of the upper classes and the inhabitants of the cities and towns. Its use probably began to decline after 410, the approximate date at which the last of the Roman troops were officially withdrawn from the island due to the disturbances in and the decline of the Roman Empire.

About the year 449 an event took place which profoundly affected the course of history. In that year began the invasion of Britain by certain Germanic tribes, the founders of the English nation. For more than a hundred years bands of conquerors and settlers migrated from their continental homes in the region of Denmark and the Low Countries and occupied all the lowlands of Great Britain, at first in the south and east of the island, gradually extending the area which they occupied until it included western and northern regions. These tribes were

Jutes, Saxons and **Angles.** The Jutes came from the Danish peninsula (Jutland) and the Angles from Schleswig-Holstein. The Saxons had their original homes between the Elbe and the Ems, A fourth tribe, the **Frisians**, some of whom almost certainly came to England, occupied a narrow strip along the coast from the Weser to the Rhine. The resistance of original inhabitants of the island, i.e. the Celts, was not strong, because having relied on Roman arms, they settled down to a more peaceful mode of life. Consequently, when the Romans withdrew in 410, the Celts found themselves unprotected.

In the course of time seven kingdoms were established: Northumbria, Mercia, East Anglia, Kent, Essex, Sussex and Wessex. In the early part of the 7th century Northumbria gained political supremacy over a number of the other kingdoms and held an undoubtful leadership in literature and learning as well. In the 8th century this leadership passed to **Mercia**. Finally, in the 9th century, **Wessex** became the most important centre. Under Alfred the Great (871-899) Wessex attained a high degree of prosperity and considerable enlightenment.

The language spoken in Britain at that time differed somewhat from one locality to another. We can distinguish four dialects in Old English times: Northumbrian, Mercian, West Saxon and Kentish. Of these **Northumbrian** and **Mercian** are found in the region north of the Thames settled by the Angles. They possess certain features in common and are sometimes known as Anglian. The only dialect in which there is an extensive collection of texts is West Saxon. Nearly all of Old English literature is preserved in manuscripts written in this dialect.

In this connection, it should be noted that the dialects spoken by the settlers in England belong to the great **Germanic branch** of the **Indo-European** (or Indo-Germanic) **family**. The position of Old English within the Germanic languages is given in the following diagram:

GERMANIC LANGUAGES

I. Western branch:	
1. Anglo-Frisian group:	a) Old Frisian
	b) Old Anglish
2. German group:	a) Old Saxon
	b) Old High German
II. Northern branch:	
1. Western group:	a) Old Icelandic
	b) Old Norse
2. Eastern group:	a) Old Danish

	b) Old Swedish
III. Eastern branch:	Gothic

2 DEVELOPMENT OF LEXIS

In spite of the geographical separation from the Continental Europe, the history of the English language reflects significant influences upon the development of the language, its grammatical, lexical and phonological subsystems which were exerted by other languages. It resulted from vivid political, military, economic and cultural contacts of the inhabitants of Britain with other nations of Europe. There can be traced several important stages of the above mentioned foreign influence.

2.1 Celtic influence

Though the settlement by Germanic tribes of Britain inevitably led to their subsequent contacts and mixing with the original Celtic population, paradoxically, there are only few traces of the Celtic language in Modern English. As explained by **O. Jespersen** (1972), large numbers of Celts were gradually absorbed by the new inhabitants and many of them fled to the western parts of island. In addition, since the Celts were a subjugated nation, the conquerors had no reason to learn their language. Consequently, the remnants of the Celtic language are limited. They can be found **in place names**, e.g. *London*, in the first syllable of *Winehester, Salisbury, Exeter, Gloucester, Worcester*, and a score of other names of cities is traceable to a Celtic source while the name York is originally Celtic. The same applies to the names of rivers, such as *Thames, Avon, Dover, Esk,* etc. Certain other Celtic elements occur more or less frequently such as *cumb* (a deep valley) in names like *Duncombe, Holcombe, Winchcombe; torr* (high rock, peak) in *Torr, Torcross, Torhill; pill* (a tidal creek) in *Pylle, Huntspill*, etc. As to other Celtic words, O. Jespersen maintains, based on investigations, that only about a dozen words passed over into English, such as *ass, bannock, binn* (basket), bratt (cloak), *brock*.

2.2 Latin influence

Latin was – as opposed to the Celtic language – not the language of a conquered people. On the contrary, it was the language of a higher civilization from which the Germanic tribes had much to learn. Contacts began long before the Anglo-Saxons came to England, i.e. in the period when they were still living on the Continent. The following examples will illustrate that the majority of loan words of this period were very concrete words denoting purely practical and material things reflecting everyday needs of Germanic forefathers. Moreover, they were also short words, easily to pronounce and to remember, in which they resembled the indigenous words. Therefore they very soon came to be regarded as part of the native activities. Mentioned should be first of all terms of **agriculture**. Latin *vinum* have ModE *wine*, *prunus* corresponds

to ModE *plum, pisum* to *pea*, etc. Many loan words were connected with **trade**. For instance, Latin *caupones* denoted wine dealers, keepers of wine shops and tavernes (compare with the German word *kaufen* = OE *ceapian* 'to buy', which was derived from it as was also ModE *cheap* – OE *ceap*, the meaning of which was 'bargain, price'). Latin *mango* (retailer) gave OE *mangere* and ModE *monger* (see for many compounds such as *fishmonger, ironmonger*, etc.), Latin *moneta* gave OE *mynet* (coin, coinage), and ModE *mint*. Latin *pondo* gave OE *pund*, ModE *pound*. Another sphere of loans is represented by the **domestic life,** including cooking, clothing, household articles, etc.: OE *eced* (vinegar), OE *cylle* (leather bottle) from Latin *culleus*, OE *cytel* (kettle) from Latin *catillus, mése* (table), *teped* (carpet) from Latin *tepétum, cycene* (kitchen) from Latin *coquína, cuppe* (cup), from Latin *cuppa, disc* (dish) from *discus, ciese* (cheese) from *cáseus* and many others.

If it was mentioned above that the influence of the Celtic language upon OE was negligible, it is necessary to slightly revise the statement. Namely, Celtic exerted a certain influence by functioning as a mediating language between Latin and English. The circumstances responsible for this condition was already mentioned, i.e. Roman occupation. Thus, Latin *castra* gave OE *ceaster* (camp), which was a common designation in OE for a town or enclosed community. Traces can be seen in place names such as *Chester, Colchester, Manchester, Lancaster, Gloucester,* etc. Another frequently used word borrowed from Latin in this way is *street* from Latin *strata*.

The greatest influence of Latin upon OE was occasioned by the introduced of Christianity into Britain in 597. The event had really far-reaching linguistic consequences. The number of new ideas and things introduced with Christianity was considerable. ModE *church* goes back to OE *cyrice* (Greek *kuriakón*), ModE *devil* goes back to OE *diabolus* (Greek *diábolos*), and ModE *angel* comes from OE *engel* (Greek *ángelos*). Other examples are: *pope, bishop, nun, abbot, mass, offer* (in the OE sense of sacrificing), and many others.

2.3 Scandinavian influence

The Scandinavian influence ranks among three large superstructures that came to be, as it were, erected on the Anglo-Saxon foundation, each of them modifying the character of the original language. The remaining two were French and Latin.

About 790 A.D., the long series of Danish inroads began, which in the second half of the 9th century threatened the very existence of the English. However, an overwhelming victory for the English and a capitulation by the Danes in 878 led to the **Treaty of Wedmore**; Wessex was saved and the Danes had to withdraw from **Alfred the Great's** territory. But they were not

compelled to leave England. The treaty merely defined the line, running roughly from Chester to London, to the east of which the foreigners were as the **Danelaw**. The treaty, however, did not put an end to the clashes. All these circumstances projected on a number of Scandinavian families settle in England. Numerous names of places ending in *-by, -thorp, -beck, -dale, -thwaite,* etc. bear witness to the preponderance of the invaders in great parts of England. But these foreigners were not felt by the natives to be foreigners in the same manner as the English themselves had been looked upon as foreigners by the Celts. England still remained England; the conquerors sank quietly into the mass of those around them. It should be remembered, too, that it was **King Knut,** a Dane, who achieved what every English ruler had failed to achieve, the union of the whole England into one peaceful realm. It should also be noted that among the settlers there were Norwegians too. Moreover, it is very important to remember how great the similarity was between Old English and Old Norse. An enormous number of words were identical in the two languages. The similarity between Old English and the language of the Scandinavian invaders makes it at times very difficult to decide whether a given word in ModE is a native or a borrowed word. Some criteria, however, are reliable. Thus, words containing the combination *sk* were in OE palatalized to [ʃ], whereas in the Scandinavian countries it remained to be pronounced as [sk]. Compare: *ship, shirt, shall, fish* vs. *sky, skin, skill, skirt,* etc. Another proof of the Scandinavian origin is the pronunciation of the phoneme **g**as [g] without palatalization: *get, give, egg,* etc. The character of loans was influenced by the fact that the Danish invasion was not like the introduction of Christianity, which brought the English into contact with a different civilization and introduced them to many new things, physical and spiritual, that they had not known before. The civilization of the invaders was very much like that of the English themselves. Consequently, the Scandinavian elements that entered the English language resulted more or less from everyday contact and everyday needs (*husband, fellow, skin, sky, anger, wrong, ill, ugly, happy,…*). There can be found many **law** terms (*law, by-law* - 'by' originally was the Danish word for 'town', 'village': it occurs in a number of **place** names such as Gri*msby, Whitby, Derby, Rugby,* etc.); words relating to **war**, and more particularly to the **navy; administration,** etc.

What is, however, striking is the very important importation of the pronominal forms *they, them* and *their* which entered the system of English pronouns. This is a very rare case of loans as pronouns belong to the very core of the vocabulary of each language.

2.4 French influence

In 1066 an event took place which had a greater influence on the English language than any other in the course of its history. **William the Conqueror** defeated the English army in the **Battle of Hastings** and the circumstances of the event as well as the subsequent **Norman Conquest** projected on the relationships between the two nations. The Normans, much more than the Danes, were felt as an alien race. They became the ruling class, masters od England, and they remained in the position for a sufficiently long time to leave a deep impress on the language. One of the most important effects was the introduction of a new nobility. Many of the English higher class had been killed at Hastings. Those who escaped were treated as traitors, and their places were filled by William's Norman followers. As a result of their resistance the Old English nobility was practically done away with. For several generations after the Conquest the important positions and the great estates were almost always held by the Normans. Hence, the language of the new ruling class was French. On the other hand, the language of the masses remained English. Another factor that contributed to the continued use of French by the English upper class until the beginning of the thirteenth century was the close connection that existed through all these years between England and the Continent. From the time of the Conquest the kings of England were dukes of Normandy and they spent a great part of their time in their mother country. This applies to the nobility as well. Moreover, nearly all the great English landowners had possessions also on the Continent and spent much time in France. The continued use of French was thus a natural consequence of these circumstances. However, the sharp line between these two languages was gradually fading out. There were many intermarriages, gradual mixing of both nations in everyday life, and thus English, as it were, was not uncommon at the end of the 12th century among those who habitually used French. It is not the purpose of this chapter to go into details of the gradual re-establishment of English in the period that followed. Rather, we are interested in the influence of French that has persisted for centuries up to our times; the influence that has materialized in the English language as its inherent part. It should be noted that the influence was so pervasive that it contributed to the reshapement of OE as a synthetic language to an analytical type of language, a case not so frequent in the history of languages.

That the Normans became the ruling class is reflected in numerous words related to **government** and to the highest **administration**: *crown, state, government, to govern, reign, realm, minister, chancellor, parliament, prince, duke, duchess, marquis, viscount, baron,* etc. The second important sphere of influence is represented by **military terms:** *war, peace, battle,*

arms, armour, assault, siege, officer, chieftain, lieutenant, sergeant, soldier, troops, navy, admiral, enemy, danger, prison, guard, march, etc.

Another effect of the power of the Norman upper classes is that most of the terms pertaining to **law** are of French origin: *justice, just, judge, suit, sue, plaintiff, defendant, plea, plead, summon, attorney, crime, felony, traitor, damage, tenure, penalty, privilege, case, marry, marriage, oust, heir,* etc. As ecclesiastical matters were also chiefly under the control of the higher classes, we find a great many French words connected with the **church:** *religion, service, saviour, virgin, saint, abbey, clergy, parish, baptism, sacrifice, altar, miracle, pray, sermon,* etc.

It is interesting - but not surprising - that while the names of several animals in their lifetime are English (*ox, cow, calf, sheep, swine, boar, deer*), they appear on the table with French names (*beef, veal, mutton, pork, bacon, venison*). This is generally explained from the masters leaving the care of the living animals to the lower classes, while they did not leave much of the meat to be eaten by them. In addition, the superiority of the French **cuisine** should be mentioned, which is shown by a great many other words as well: *sauce, boil, fry, roast, pastry, soup, sausage, dinner, supper.*

The French led the **fashion** as early as the Middle Ages, so it is no surprise that such terms as *apparel, dress, costume, garment* come from their language. Another spheres of influence are **art:** *art, beauty, colour, image, design, figure, ornament, to paint,* etc., and **architecture:** *arch, tower, pillar, vault, porch, column, aisle, palace, castle, manor, mansion,* etc.

2.5 Latin and Greek influence in Middle Ages and modern times

The latest stratum of loans from Latin and Greek can be discriminated from those already considered with comparative ease. It is, namely, characterized by abstract and scientific words. In addition, it should be noted, that most of the Greek words have entered into English through Latin, or have, at any rate, been latinized in spelling and endings before being used in English. The great historical event that formed the background of the new intensive influence of Latin was the **Revival of Learning.** Through Italy and France the **Renaissance** came to be felt in England as early as the 14th century. Though the same influence is conspicuous in all European languages, in English it has been stronger than in any other language, French perhaps excepted, which is explained by the fact that the resistance against these alien intruders had already broken in the case of the English language by the events after the Norman Conquest. French words, as it were, paved the way for the Latin words which resembled them in many respects. A curious consequence of the Latin influence in the period that followed was that scores of French words were remodelled into closer resemblance with their Latin originals. Thus, for instance, *descrive*

was replaced by *describe, verdir* has given way to *verdict, Avril* has been latinized into *April*. The form *langage* was used for centuries, before it became *language*. Hundreds and hundreds of new words denominating new ideas, objects and aspects of life drew on the Latin material. This is seen very extensively in the nomenclature of modern science, in which hundreds of chemical, botanical, biological and other terms have been framed from Latin and Greek roots, most of them compound words. There are many words in ModE called **hybrids,** i.e. words in which one of the component parts was English and the other of foreign origin (in this case Latin or Greek): the ending *-ation* as found in *starvation, -ist* in *walkist*, *-ism* in *block-headism, -ize* in to *womanize, ex-* in *ex-king, anti-* in *anti-taxation movement, inter-*in *intermar-riage, pre-* in the *pre-Darwinian explanation, re-* in *reorganize* (always strongly stressed, which enables one to distinguish these words starting in *re-* from an older set of 're- words', where *re-* is always weakly stressed or else, when strongly stressed, pronounced with short [i], e.g. *remember*; so we have pairs of words *remark - re-mark, resign - re-sign* that differ in their meaning).

Another interesting phenomenon can be observed as to the relation of nouns and adjectives. In ModE there are many pairs of native nouns and foreign adjectives: *mouth - oral, nose - nasal, eye - ocular, mind - mental, house - domestic, the Middle Ages - medieval, book - literary, moon - lunar, sun - solar, town - urban, man - human,* etc.

2.6 Other Sources

Apart from major sources of loan words that actually shaped the English vocabulary, there are also some other languages that have furnished English with a limited number of words.

2.6.1 French

The French language provided English with the greatest number of loans. These cover **political** terms (*coup, régime*), **food** (*aspic, café, champagne, cuisine, menu, restaurant*), **fashion** (*bra, blouse, lingerie*), **entertainment** (*acrobat, amateur, can-can, matinee, premiere*), **transport** (*chauffeur, couchette, depot, garage*) and many other terms (*bureau, camouflage, chamois, avantgarde, banquet, boutique...*).

2.6.2. Dutch

The Dutch have always been a seafaring nation; hence many **nautical** words have come from that source: *yacht, schooner, deck, cruise, iceberg,* etc. There are also some words covering **fine arts** which flourished in that country in the 16th and 17th centuries: *sketch, landscape, etch,* etc.

2.6.3 Italian

There is a great number of **musical** terms borrowed from Italian: *piano, soprano, opera, libretto, adagio,* etc. A good number of terms come from **architecture:** *loggia, balcony, corridor...* **Commercial relations** have given English such terms as *traffic, risk, bank, bankrupt.* Among **military** loans may be mentioned *alarm, colonel, arsenal, pistol.* **Food** terminology: *mortadella, salami, spaghetti, pasta.* Some other terms: *vendetta, umbrella, dolce vita, catacomb, mafia, influenza...*

2.6.4 Spanish

It is mainly the **military** words, such as *armada, escapade, guerilla, crusade,* and expressions from other spheres of life: *don, cargo, cafeteria, comrade, potato, tobacco, tomato, guitar, embargo...*

2.6.5 Arabic

Many Arabic words relate to **sciences:** *algebra, zero, zenith, alchemy, alcohol, elixir.* Other areas of life: *harem, sultan, sultana, sofa, mocha.*

2.6.6 German

There are surprisingly few German loan-words in English: *plunder* was "brought" to England by the English soldiers that took place in the Thirty Years' War. Other most famous borrowings are *swindler, kindergarten, landsturm, zollverein, weltpolitik, weltanschauung, hinterland.*

2.7 External factors

It follows from this brief account that the English vocabulary would look completely different if it were not for the foreign influences. One should, however, ask a very important question, i.e. the question of the background of these foreign influences, of the forces that enabled words to penetrate into, and reshape, the English vocabulary in the course of its historical development. This question is, as a matter of fact, the issue of the degree to which **external factors** (i.e. political, economic, cultural and social factors) can and do contribute to the development of language. As mentioned above, the most striking impact of external factors concerns the vocabulary of the language. The penetration of new words into English was conditioned by the following factors: 1. external factors such as the new political situation due to the attacks of Scandinavians, or after the Norman Conquest; the cultural circumstances of the period of New Learning that supported the prestige of Latin in Europe, the Latin having been regarded as a model to be imitated, etc.; 2. the elementary need of communication between people; 3. the readiness of the English language to 'absorb' numbers of new expressions. It

should thus be noted that the external factors serve usually as a precondition, as a mediating factor, making it possible for one language to exert influence upon another language.

The impact of the external factors on the non-lexical planes of a language is usually not so clear; nevertheless, this kind of changes does occur. A case in point is the penetration of simple negation into the English language which had usually used multiple negation. Without going into details, let it just be mentioned that external preconditions for the change were the period of Rationalism emphasizing the logical principles in all spheres of life, as well as the influence of Latin that admitted simple negation in clauses expressing universal propositions. As stressed by **J. Vachek** (1976), these were, however, only external preconditions for the would-be change. There must have been also language-internal conditions that allowed the switching-over from multiple to simple negation: the existence of the pronoun **any** that combines the features of universality and potential realizability; and the semantic neutrality of the finite verb form as regards the positive or negative quality of action.

An important conclusion from the above considerations is that language is a social system, existing and developing in the human society and under the influence of the society. In no case is it a static system. On the contrary, it represents a highly dynamic system with its internal laws and rules conditioning any changes coming from outside.

3 DEVELOPMENT OF GRAMMATICAL SYSTEM

The development of the English language from its OE period up to its contemporary form reflects numerous changes, the result of which has been a complete reshapement of once **synthetic** type of language into an **analytic** type. In the following paragraphs we shall briefly outline - based on. **J. Vachek's** works (1972, 1976) - the differences between the situation in morphology and syntax in OE and ModE respectively, and in the end we shall mention the basic circumstances and factors that led to such a profound change in the typological nature of the English language.

It can be stated that the general tendency of the development of English is the tendency towards an overall **simplification** of the morphological system. Where the old language has a great many endings, most of them very vague in meaning and applications, ModE has but few, and their sphere of signification is more definite. The number of irregularities and anomalies, so considerable in OE, has been greatly reduced so that now the vast majority of words are inflected regularly. There has been a complete disappearance of a great many of those details of inflexion which made every OE paradigm much more complicated than their counterparts in ModE, such as distinctions of persons and numbers, and nearly all differences between the infinitive, the imperative, the indicative and the subjunctive.

Let us briefly go through the individual word classes to illustrate the abundance of different forms of words within numerous paradigms.

3.1 Nouns

In their declension, OE substantives distinguished two numbers (sg. and pl.) and four cases. The declension of the individual substantives depended on their respective **paradigm**. There were basically two main types of nominal paradigms, the **athematic** and **thematic**. In the former type, the inflexional endings were, in prehistorical times, added directly to the root of the noun (e.g. **fōt-iz* OE *fēt* ModE *feet*). In the thematic type, which is historically more recent but which dominated the OE declension of nouns, the root was followed by a suffix forming the stem out of the root, and only after this suffix (called **theme** - hence **thematic** declension) the inflexional endings were added, e.g. *stain-a-z, OE stān, ModE stone. It should be noted that the most important characteristics of the individual patterns, i.e. the theme, usually disappeared before the OE period. The thematic types were further subdivided into the **vocalic** declension and **consonantal** declension, and these types of declension were further subdivided according to the phonemic realization of the theme: a-stems, ó-stems, i-stems, u-stems, n-stems, r-stems, os/es-stems, etc. Further distinction was made between the **short-stem** and

long-stem nouns. Moreover, the declension of nouns depended on their **gender.** As it follows from the preceding remarks the OE language featured a diversity of forms and paradigms. The most productive of all paradigms was that of a-stems and this paradigm can serve us for the illustration of OE declension.

	Singular	Plural
Nom.	stān	stānas
Gen.	stānes	stāna
Dat.	stāne	stānum
Acc.	stān	stānas

(OE stān gave ModE stone)

3.2 Adjectives

OE distinguished between two types of declension. Adjectives were usually declined after the same paradigm as the substantives (strong declension), i.e. they were attached the same inflexional endings as the governing nouns. However, there were also the so-called weak forms that were mainly used after the demonstrative and possessive pronouns, in addressing people, etc. The strong declension of masculine gender adjectives can be illustrated by the OE adjective glæd (ModE glad):

	Singular	Plural
Nom.	glæd	glade
Gen.	glades	glædra
Dat.	gladum	gladum
Acc.	glædne	glade

3.3 Verbs

OE verbs can be classified into **athematic** (only 4 verbs) and **thematic** on the same principles as nouns. The thematic conjugation distinguishes between **strong** verbs (7 different classes) and **weak** verbs (3 classes). The conjugation can be illustrated by the strong verb cēōsan:

Ind. pres.			
Sg.	1. cēōse	Pl.	1.2.3. cēōsaþ
	2. cīēst		
	3. cīēst (originally -sþ)		
Imperative: sg.	cēōs		
Ind. preterite:			
Sg.	1. cēās	Pl.	1.2.3. curon

2. cure
3. cēās

Present participle: cēōsende
Pret. participle: ʒecoren

In addition, there were distinguished special forms for subjunctive - present and preterite.

3.4 Analytic trends

If we compare the outlined situation in OE with that in ModE, the following conclusions can be drawn:

In principle, OE was a **synthetic** language (typologically similar to Mod German or Mod Slovak). It means that syntactical functions of words were expressed mainly by inflectional endings. On the contrary, the contemporary English makes use - to a large extent of **analytic** means, i.e. auxiliary verbs, prepositions, etc. The synthetical character of OE was reflected in a number of declensional and conjugational types, the diversity of them having been obliterated in the course of time. Thus, for instance, out of the many above mentioned declensional paradigms amounting to over 20 different types, it was, as a matter of fact, only the a-stem masculine gender that came to be almost a universal pattern of English declension, covering not only masculine gender substantives, but also feminine and neuter gender nouns. All other declensional types have given way to this pattern so that only few traces of them can be observed in ModE. For example, once very productive n-stems are represented in ModE by a small group of nouns that form their plural by *-en: oxen, brethren, children* - at that, the last two nouns did not belong originally to OE n-stems. A few words have been preserved from the so-called athematic declension that formed their plural by stem vowel change (ablaut): *goose - geese, foot - feet, man - men, mouse - mice,* etc.

The declensional system of adjectives has been even more simplified. The already mentioned diversity of declensional types and strong and weak forms has completely vanished: ModE adjectives are not declined, they do not have any plural endings in contrast to substantives. This development corresponds with the general trend of development of English syntax: adjectives have become more dependent on their governing nouns, because it is not the adjectival form that carries the singular or the plural meaning; this information is provided by the governing head noun.

The pronouns witnessed substantial inflexional simplification too. The most conspicuous is, in this respect, the situation in the category of personal pronouns, where in OE each pronoun

had its characteristic form in each of the four cases, which can be illustrated by the 1st person personal pronouns:

	Sg.	Pl.
N	ic	wē
G	mīn	ūser
D	mē	ūs
A	mec	ūsic

In the course of the development, the four forms have been reduced to two: subjective and objective cases (*I - me*), or even one (*you*). It should be noted that the English language used to make a distinction between using the second person sg. vs. second person pl. in addressing persons. Such a distinction has been lost. Interestingly, OE lacked relative and reflexive pronouns. Their function was fulfilled by demonstrative, or personal pronouns. In addition, articles which are closely related to the category of pronouns, were not an established grammatical category in OE.

The situation in the category of verbs is rather complex. As far as the forms and conjugational paradigms are concerned, their diversity has been reduced. However, on the other hand, some new irregularities emerged due to vowel changes. All in all, the system of conjugational types has been significantly reduced. The development followed the analytic trends, similarly to the development of declension. Syntactical relations are mostly expressed analytically, by means of auxiliary words, and the only inflexional ending preserved is that of the 3rd person sg. ind. pres. Tense, mood, person and number are expressed by personal pronouns and auxiliary verbs.

Another important fact pertains to the system of English tenses. OE could do with two tenses - present and preterite - for expressing various temporal relationships in the extralinguistic reality. The present system of 12 tenses reflects these relationships in a more subtle way. Thus, the simplification of the verbal conjugation has been accompanied by the development of a more complex system of verbal tenses. OE did not know progressive tenses; there were only some *ad hoc* constructions of the type “to be + pres. part”. These *ad hoc* constructions developed into a fixed system as late as the Middle English period.

As far as **syntactic changes** are concerned, the most striking one concerns the **word order** in English sentences. The OE word order can be said to have been more or less free, which is in sharp contrast with the fixed word order of ModE. It was not necessary for the subject to precede the verbal predicate that did not have to be followed by the object. This situation was closely connected with the synthetic character of OE: since word forms were characterized by

their endings, their meaning and sentence functions were clearly understandable. In the course of the development of English the endings, being unstressed, were gradually reduced and later on completely lost so that the individual words were not able to express their sentence functions outside a sentence context. This was the reason for the **grammaticalization** of the word order, i.e. the subject, the predicate and the object were assigned their typical fixed positions within the sentence.

Another typical feature of OE concerns the so-called impersonal constructions expressing various physical and mental states. In Slovak, they are usually expressed by impersonal, subjectless constructions (***je mi zima, je mi ľúto, darí sa mi,*** etc.). ModE makes use, in these cases, of personal constructions with the subject being expressed (*I feel cold I am sorry, I succeed,* etc.). On the other hand, impersonal constructions were typical of OE, analogically to Mod Slovak. The reason of these changes consists in the fact that in impersonal constructions, it is the indirect object that precedes the predicative verb; for instance, in OE þæm manne is cealde ('that man is cold'), the copula *is* is preceded by the dative expressing the indirect object þæm manne. In the period of fixing the word order, this position is, however, reserved for the subject. In addition, one further factor was in play: the weakening and subsequent loss of vowels in unstressed syllables. This was projected on the formal coincidence of the dative form with that of the nominative.

All that has been mentioned so far illustrates one important fact. The fact of interrelations between the individual language levels. Language is said to be a system of systems (or subsystems), and it should be noted that these systems, i.e. linguistic levels, do not exist in isolation. They are connected by numerous relations, and the changes at one level can be reflected in subsequent changes at other levels. The above development is a beautiful example of this statement. The changes at the **phonological** level (the reduction and the subsequent loss of endings was caused by the operation of word stress, this being a phonological factor) triggered off a whole process of changes at the **morphological** level (see above), which called forth the changes at the **syntactic** level. This has an important consequence for students of linguistics, i.e. all the individual facts concerning the language should be studied as a component part of a larger system - the system of language with its internal structural interrelations. In other words, when discussing various linguistic issues, we should ask not only *What happened?* but also *Why did it happen?* This is the key to understanding language in general.

Chapter II

Standard English and its Geographical Varieties

1 STANDARD ENGLISH

Standard English can be characterized by saying that it is that set of grammatical and lexical forms which is typically used in speech and writing by educated native speakers. Standard English includes the use of colloquial and slang vocabulary as well as swear words and taboo expressions. Modern standard English comes in two main, semi-autonomous varieties: North-American English as employed in the USA and Canada; and British English as employed in the United Kingdom and, with differences that are minor except at the level of colloquial vocabulary, in Australia, New Zealand, and South Africa. There is an increasing tendency towards autonomy on the part of, especially, Australian English.

Apart from obvious types of stylistic differentiation, standard English lexical usage is fairly uniform, although age-group, sex and regional differences can certainly be found, especially at the level of colloquial vocabulary. Standard English is even more uniform at the grammatical level than in the case of lexis. Age-group differences can, however, be noted as can a small amount of regional variation.

1.1 Standard and nonstandard English

Forms which occur widely in nonstandard dialects of English, but which are not found in standard English, include the following:

1. Multiple negation:

He didn't want no supper.

None of them can't do it.

Don't you like it? Nor don't I.

2. Past tense of verbs

Many nonstandard dialects have fewer irregular past tense verb forms than standard English. Differences include:

a) Complete regularization: *draw - drawed - drawed* instead of *draw - drew - drawn*

b) Reduction of three verb forms to two:

see - seen - seen vs. *see - saw - seen*

give - give - given vs. *give - gave - given*

This sometimes leads to a distinction between main verb do and auxiliary do:

Main verb: *do - done - done*

Auxiliary: *do - did - 0*

Example: *You done it, did you?*

3. Ain't

Very many nonstandard dialects in England employ *ain't* as the negative present tense form of *be* and of auxiliary *have*, for all persons:

I ain't doing that.

She ain't here.

We ain't done it.

4. -s in the 3rd person singular

Many nonstandard dialects differ from standard English by having *-s* for all persons:

I wants it.

You likes him.

Others lack *-s* even in the 3rd person singular:

He like her.

She want one.

5. Relative pronouns

Many dialects differ from standard English by permitting *which* as a relative pronoun referring to humans as well as things; by using forms other than *who, which* and *that* as relatives; and by permitting the omission of subject as well as object relative pronouns:

He's the man which done it.

He's the man what done it.

He's the man as done it.

He's the man done it.

6. Demonstratives

Many nonstandard dialects do not employ *those* as a plural demonstrative using *them* or *they* instead.

They books over there.

Them boys on the bridge.

7. Adverbs

Many nonstandard dialects lack the Standard English distinction between adjectives and their adverbial counterparts in *-ly:*

He runs very quick. She done it very clever.

2 VARIANTS OF BRITISH ENGLISH

In the following paragraphs we shall indicate some peculiarities of Northern English, Scottish English and English spoken in Ireland as compared with the so-called BBC English or RP-English of the south of Britain. The final paragraph will be devoted to American English which still more and more comes to be a dominating variety of English in the world.

2.1 Northern English

Though it is the Southern type of English that is recognized as the "representative" variety of English, Northen English is spoken in the territory larger than that of Southern English, with centres in **Durham** and **Birmingham.** From the historical point of view, the Northern type of pronunciation undoubtedly represents a less advanced stage of development than the Southern type. Most of the phonic features typical of Northern English might be identified with the analogous features of Southern English of two, three or even more centuries ago.

Differences between Northern English (NE) and Southern English (SE):

2.1.1 Consonants

1. Trilled (vibrant) articulation of the consonant [r] in careful pronunciation distinctly different from the post-alveolar frictionless continuant of SE.

2. Pronunciation of the digraph *wh*. As is commonly known, the SE does not distinguish *wh-* and *-hw* in pronunciation. In the North, *wh-* is pronounced as voiceless *w*, which makes it possible to distinguish such pairs as *witch/which, wine/whine,* etc.

2.1.2 Vowels

1. SE [æ] is replaced in NE with [a]. Words like man, cat, have are pronounced in the North as [man], [kat], [hav]. This pronunciation used to be common in the South prior to the 16th century.

2. SE long velar [ɑ:] is replaced before voiceless fricatives and before n + sibilant (*glass, cast, chance*) as front [a:].

3. SE diphthong [ei] is realized as a diphthong in NE only if it is followed by a voiced consonant (as in *made, laid*), or when word-final (as in *way*). If, on the other hand, it is followed by a voiceless consonant, then it is acoustically realized as a long closed [e:] (as in *bake, cape, gate*).

4. The qualitative differences of stressed and unstressed vowels are less marked in NE than in SE.

5. SE [ʌ] is replaced in NE with a sound similar to [u] (as in *much, but*). Actually, it is a delabialized u-vowel.

6. The tendency in NE towards monophthongization: SE [ei] in some positions becomes [e:], and [əu] usually becomes [oː] as in boat, road, load.

7. One of the most typical features of NE, absolutely unknown to SE, concerns its coronal vowels. This term denotes vowels whose articulation is concluded by a raising of the tongue-tip towards the articulatory position that used to be typical of the coronal (inverted) r-sound. This applies to NE counterparts of SE [ɛə], [ə] or [ə:], [ɑː] and [ɔː], as in words *hair, first, hard, short.*

8. SE [ə] in positions where this sound was left after the disappearance of the following final *r* has in NE its counterpart realized as coronal [ʌ] as in *brother, better.*

2.2 Scottish English

By its origin, Scotland is a Celtic country, and at least to some extent the Celtic element has survived in it up to the present day. Originally, the country was inhabited by four tribes. The Celtic tribe comes from Ireland (which is used to be called Scotia, the present Scotland having been originally referred to as Scotia Minor). But there was also a Germanic element closely connected with the OE Northumbrian settlers, and it was this Germanic element that was gaining in importance in Scottish history, especially after the flooding of the country by the Anglo-Saxon noblemen escaping the vengeance of William the Conqueror. The transfer of the royal seat from the Scone castle to the city Edinburgh in the latter half of the 15th century only symbolized the victory of the of English element. These events have necessarily been reflected in the language. In the southern Lowlands an English dialect (Northumbrian) was spoken, in the northern Highlands it was a Celtic idiom, termed **Gaelic.** It is remarkable that the Gaelic language has survived in the Highlands up to the present day. The language of the Lowlands was called **Scottis,** later **Scots.** Nevertheless, the political hegemony of England went hand in hand with a strong influence of London English. In the latter half of the 18th century, a specific poetic language emerged in Scotland - English with a strong admixture of Scottish dialectal elements - that was used by many Scottish writers. It is termed as **Modern Scots.** As to the modern times, it is the Southern English standard that is taught at Scottish schools, however, with many idiosyncrasies mainly pertaining to the phonic level. The Scottish English has some important features in common with the Northern English, but, it is even more conservative.

Differences between Scottish English and Southern English (SE):

2.2.1 Consonants

1. The consonant [r] pronunciation is trilled, even in colloquial speech. [r] is pronounced even before a consonant or a pause as in words *girl* or *hair.*

2. Voiceless pronunciation of the written *wh*-group, just like in NE.

3. Generalization of the dark *l* that, in SE, occurs after a vowel only.

2.2.2 Vowels

1. SE [æ] as in *man, cat* is replaced with [ɑ].

2. The abundance of long vowels and the scarcity of diphthongs. The long high vowels [i:] and [u:] are never diphthongized into [i^{i}] and [u^{u}] as often happens in the SE. SE [ei] and [əu] are often replaced with [e:] and [o:], respectively: *make, hope* are pronounced as [me:k] and [hɔ:p], respectively.

3. The non-existence of the centring diphthongs. Words like *beard, poor, fair* are pronounced in Scotland as [bi:rd, pu:r, fe:r], respectively.

4. The Scottish English has preserved the ancient *r*-sound that had disappeared in the South between the South between the vowel [ɑ:] and a pause, or a following consonant; thus, a word like *hard* is pronounced as [hɑrd].

5. Scottish English lacks the long mixed vowel. Hence, such words as *bird, first* are pronounced as [bərd], [fərst], the mixed vowel in these words is often replaced with [ʌ].

6. SE [ɔ:] is pronounced in the Scottish English as [ɔr] as in *four, or, port, sword,* or as [ɔr] as in *short, order, record,* depending on whether in Middle English the stem vowel was long or short, respectively.

7. The unstressed [i]-vowel is sometimes reduced more than in the South, at times even reaching the quality of the mixed vowel.

2.3 English spoken in Ireland

Ireland has been a substantially Celtic territory and it can boast of a very ancient cultural tradition. The Irish priests acted as missionaries on the British soil prior to the Roman mission. Some Irish influence can be traced in the Anglo-Saxon alphabet and in some scribal tradition found in early English manuscripts. It should be noted that a part of the inhabitants of Scotland came over from Ireland. Ireland became a dominion of England in the 12th century when Henry II, the king of England, was called upon to intervene in quarrels of local kings, but until the 16th century this dominion had not been very oppressive. It was Henry VIII who exerted a strong national persecution and religious oppression. The Irish, who were Catholics, refused to acknowledge the State Church, which brought about severe waves of terror, especially during

the reign of Queen Elisabeth and William of Orange. Due to thousands of new settlers coming from Scotland after the union of England and Scotland a new situation was to be reality. The northern part of the island became Protestant, while the rest of the country remained Catholic, with the northern Presbyterians being a privileged class; the inhabitants of the South were deprived of elementary human rights. It took one and a half century to regain these rights. In 1921 Ireland was granted the status of a free country and after the Second World War, Ireland - or Eire, as it is officially called, gained full political independence. However, the northern, Protestant part of the island is excluded from Eire and still forms a component part of the United Kingdom.

The political history of Ireland is reflected in the present language situation. The original Celtic language ceased to be used in the upper classes of the Irish society and only the poor rustic population kept it as their means of communication. Nevertheless, even here it was English that has gradually taken a dominant position. Hence, after gaining national independence, the majority of the Irish people could not speak their original Celtic language. Generally speaking, English spoken in Northern Ireland (also called Ulster) has much in common with the Scottish type of pronunciation, which is a natural consequence of the external, political factors described above. On the other hand, English as spoken in Eire, has some features reminding of the pronunciation of Elizabethan English, which again is due to the flood of immigrants coming to the southern part of Ireland from Central and Southern England during the reign of the Late Tudor period. In both parts of the country, however, *r* has a trilled pronunciation, and *wh-* is voiceless just as in Northern England and Scotland. One important feature is common to the pronunciation habits of both parts of Ireland: both the phonic and the phraseological features of the Irish variety of English appear to be based on some peculiarities of Celtic Irish. The Irish speakers tend to substitute some English sounds and sound combinations by native sounds and combinations. The most typical differences between English spoken in Ireland (IE) and Standard English (SE) are as follows:

1. In some positions the pairs of phonemes (t - θ) and (d - ð) lose their phonemic status and become combinatory variants. For instance, the initial group *tr-* is regularly pronounced as [θr], as in the words *true, trap,* but also in the middle of words such as in *bitter, butter.* On the other hand, the fricative [θ]-sound at the end of words is usually substituted with [t], e.g. in *bath.* The same applies to the latter pair of phonemes: [ð] in *drive,* but [d] in *bathe.* This combinatory relation of voiced and voiceless alveolar fricatives is called **lenition.**

2. If [s] or [z] is followed by an alveolar sound or by the liquid [l] it is often realized as [ʃ] or [ʒ], respectively: the word *fist* is often pronounced as [fiʃt], *dozen* as [daʒn].

3. Frequent occurrence of **assibilation,** especially after [d]: *duke* is pronounced as [dʒu:k], *produce* as [prə'dʒu:s]. This type of pronunciation was typical of the Elizabethan period.

4. The influence of the same period can be traced in the strong reduction of unstressed formal words or word-elements: *by, my* are pronounced as [bi], [mi], respectively. Radical reductions, however, can come across in some non-formal words too: *ornary* instead of *ordinary, garner* instead of *gardener,* etc.

5. Long closed e-vowel pronounced in words like *easily, clean,* which reflects the pronunciation in the 16th century English.

6. Frequent occurrence of [e] before [r], where the Southern English has [i], as in *spirit, miracle.*

All in all, the Irish can be said to be very archaic and conservative featuring many signs of the Elizabethan period.

3 AMERICAN ENGLISH

3.1 Historical background

The first European colonists to settle down in the territory of what is now the USA were a group of people led by Captain John Smith, who came to the present-day Virginia. After many hardships, Virginia was founded in 1607, and 13 years later, a new colony was established by Puritan emigrants who had fled from England owing to the religious persecution of the official Church. They were the well-known Pilgrim Fathers sailing on the ship Mayflower. The 18th century was characterized by the continuing colonization of the whole Atlantic coast. By the middle of the century thirteen colonies had been established. The colonies were independent of one another, and differed in their customs, religion, and the occupations of the settlers. Nevertheless, they united against their common enemy - the central government in Britain, which imposed high taxes on the colonial inhabitants but was unwilling to grant them the right of political representation in the British Parliament. The colonists issued a slogan *Without representation no taxation* and in 1776, they proclaimed the **Declaration of Independence,** starting an open rebellion. After eight years of fighting, and under the leadership of **George Washington,** the colonists gained their victory. This led to the establishment of the United States of America.

It took more than a century to conquer and inhabit the whole territory of the present-day USA. The whole process of colonization was roughly concluded by the end of the 19th century.

3.2 Differences between American English (AE) and Standard English spoken in England (SE)

Differences between SE in England and North American English are relatively large as far as lexis is concerned, and noticeable enough in the case of grammatical forms. Many of the differences involve differences of frequency rather than the absolute absence of forms from one variety or the other. In addition, there are spelling differences, and a few differences in punctuation.

3.2.1 Grammatical differences

1. Past tense of irregular verbs

	SE	AE
burn	burnt	burned
learn	learnt	learned
dream	dreamt	dreamed
dive	dived	dove

fit fitted fit

2. Habitual *would* is a good deal more frequent in AE:

SE: *When I was little, I used to go there every day.*

AE: *When I was little, I would go there every day.*

3. Words such as *like,* or *watch* may take either an infinitival or a present participle clause as its object. SE prefers the participle while AE more often has the infinitive:

SE: *I like walking*. AE: *I like to walk.*

I watched him doing it. *I watched him do it.*

4. The verbs *come* and *go,* when uninflected, are followed by to + *infinitive,* or *and* + *another clause,* while AE often has a simple uninflected verb:

SE: *We'll come and see you soon.*

AE: *We'll come see you soon.*

5. Collective nouns such as *government, team* frequently take plural verb agreement and plural pronoun substitution in SE, but most often take singular agreement in AE:

SE: *Aston Villa are playing well. They are top of the division.*

AE: *Aston Villa is playing well. It is top of the division.*

6. Differences in countable/uncountable noun membership:

SE: *I want two lettuces.*

John is good at sport.

AE: *I want two heads of lettuce.*

John is good at sports.

7. In written SE, any use of the pronoun *one* is followed by further co-referential instances of *one*, while AE normally has *he, she,* or *he* or *she* (in speech, both varieties often have co-referential *you* or *they*):

SE: *One must be honest with oneself.*

AE: *One must be honest with himself.*

8. Position of adverbs:

SE: *He would never have done it*

AE: *He never would have done it*

9. In constructions where an object is described as having some other object in, on, or off it, SE permits the deletion of the pronoun (it, them):

SE: *The table has book on.*

The bushes with flowers on.

AE: *The table has books on it.*

The bushes with flowers on them.

10. The use of *will* with all persons:

SE: *I shall do it.*

AE: *I will do it.*

3.2.2 Differences in spelling

Many of the differences between British and American usage are due to the greater archaism of the latter, which mainly bears on the pronunciation. This is not true, however, of spelling, where, on the contrary, spellings peculiar to America or at any rate first commonly used there are, for the most part, relics of the work of **Noah Webster** (1758 - 1843) who, through his dictionaries and spelling books, has had, probably, more influence on the spelling of English in America than any other single person has ever exerted on an important aspect of any civilized language. It was his dictionaries that put through the spelling *-er* for *re-* and *-or* for *-our* as in *center, theater.*

Generally, the spelling is simplified with respect to SE:

SE:	AE:
colour	*color*
labour	*labor*
mould	*mold*
traveller	*traveler*
catalogue	*catalog*
programme	*program*
enquiry	*inquiry*
defence	*defense*

3.2.3 Differences in pronunciation

The present state of pronunciation, typical of the most common variety of American English (General American), reflects the state of Southern English pronunciation at the time of the outburst of hostilities between the mother country and the thirteen colonies, i.e. in the seventies of the 18th century.

3.2.3.1 Vowels

1. Very lax pronunciation of the short i-vowel so that it sometimes resembles [ə] as in *timid* [təməd]. It does not apply to the final i-vowel. Therefore, *gravity* is pronounced as [grævəti]

2. Monophthongization of SE diphthongs:

SE: [leidi] AM: [ledi]

[meik] [mek]

[həup] [hop]

3. In AE [æ:] often occurs in those positions in which SE has a long velar [ɑ:] as in words [æ:ftə], [hæ:f], [plæ:nt].

4. Occurrence of [ɑ] instead of [ɔ] in words such as [nɑt], [stɑp], [blɑk].

5. Long [ɑ:] instead of [ɔ] in polysyllabic words such as [kɑ:mədi], [dɑ:ktə], [kɑ:lidʒ].

6. Retroflex pronunciation of short and long mixed vowels in words such as *bird, firm, err, better, perceive.*

3.2.3.2 Consonants

1. AE r-sound is not a post-alveolar frictionless continuant, but a sound whose articulation is very close to that of the American short mixed vowel.

2. SE [t] in the position between vowels or between a vowel and a voiced sound, as e.g., in *pity, better, battle* resembles in AE pronunciation the SE [d], though the Americans distinguish between this sound and [d] as pronounced in words such as *ladder* or *pudding.*

3. [r] in an intervocalic position became almost or quite a vowel (an *r-coloured* vowel) as in *very.* [r] is here rather a vowel forming a diphthong with the preceding vowel than a consonant attached to the following vowel.

3.2.4 Lexical differences

For the most part the many peculiarities of the American vocabulary are explicable as results of ways in which life in America differs from life in England. Some of these peculiarities are inherent in the very topography and flora and fauna of North America itself, and in the first English settlers' adaptation of their language to the new surroundings: the American senses of *corn, robin, walnut,* and *creek,* for example, are senses that originated with Englishmen. Others, especially the names of western topographical features, reflect the earlier arrival, in the west, of Frenchmen (butte), or Spaniards (arroyo). New political institutions, again, produce new political terms: *Congress* instead of *Parliament, Congressman* instead of *M.P.* These particular instances, by the way, illustrate not only the differences but also historical reasons behind them: the U.S. Congress is not so called because of any dislike of the word *parliament,* but inherits its name from the days before the Federal Constitution, when the several rebellious colonies, regarding themselves as sovereign not only with respect to Great Britain but also mutually, adopted almost inevitably for their common representative assembly the name then generally applied to a meeting of the representatives of sovereign states (e.g. the Congress of Vienna); and the word *state* itself, as the name of a constituent of the Federal Union, reflects in its

adoption and its continuance the same set of circumstances and conceptions. Another 18th century sense of *state* is preserved in the title *Secretary of State,* who is what is called in most countries the Foreign Minister; but the latter is formally Her Majesty's Secretary of State for Foreign Affairs, and the American title was in origin nothing but a very slightly adapted use of the contemporary official and formal British one.

In the language of the law we find similar survivals: terms like *barrister* and *solicitor* disappeared from American legal language, where *lawyer* and *attorney* are the only expressions in use. This difference is due to the fact that the conditions of life faced by a sparse population in a new country made the continued existence of two kinds of lawyers a dispensable luxury.

The terms used in connection with education also reflect social differences. Needy and deserving students at American universities know nothing of exhibitions and little of bursaries, though they are eligible recipients of *scholarships* and *fellowships.* The teaching staff of an American university usually speak of themselves not as the faculties, but as the *faculty,* however miscellaneous their subjects. This is a natural result of the development of the first American universities from colleges of the liberal arts, which indeed had only one 'faculty'. An evidence of chronic and endemic starvation in the particular honorific titles is reflected in the fact that American pupils *graduate* from high schools and are given *diplomas* instead of school-leaving certificates.

At present, everyday life provides many examples of differences: the American drops a letter into a *mail box* (not a *pillar box*), which stands on the *sidewalk* (not the *pavement*). *Cinema* is very little used in the America and is replaced with *movie.*

It is a general feature of American English that words of lowly origin, including many slang expressions, tend to rise into general and reputable use more easily and rapidly in America than in England. This is an indication that class distinctions are much less important and definite in America than in England. Differences in the acceptance of slang expressions are probably the most striking aspect of the differences between the two languages as far as the lexical level is concerned.

Chapter III

Phonic Level

The phonic level of language is studied by two complementary disciplines - phonetics and phonology (or phonemics as used mainly in American linguistics).

1 PHONETICS

Phonetics deals with the material of speech itself. Speech sounds are studied from three different points of view, which correspond to three main branches of phonetics:

1. **Articulatory phonetics** studies speech sounds from the speaker's point of view in terms of the articulatory organs and processes involved.

2. **Acoustic phonetics** studies speech sounds from the point of view of the transmission of the speaker's output in terms of physical characteristics (waveform, intensity, periodicity, noise, etc.).

3. **Auditory phonetics** studies speech sounds from the point of view of the hearer in terms of the physiology and psychology of perception.

It follows that the division is based upon three main components of the process of communication, i.e. the speaker, the communication channel, and the hearer.

1.1 Articulatory phonetics

Articulatory phonetics has a long tradition compared to other subdisciplines of phonetics.

Generally, sounds produced in speech can be described from the articulatory point of view by the following features:

1. The nature of the air-stream - either expelled from the lungs to the atmosphere, or drawn into the lungs.

2. The action of the vocal cords - closed, open, or vibrating.

3. The position of the soft palate - lowered, raised, or lowered in conjunction with the closing of the mouth so that the airstream can pass only through the nose.

4. Relative position of the fixed (teeth; roof of the mouth, including alveolar ridge and the hard palate) and movable parts (lips and the tongue) of the mouth.

Phonetically, it is possible to classify speech-sounds into two great classes - **vocoids** and **contoids.** The former are those speech-sounds which, generally speaking, have the following characteristics: the air-stream that makes them is allowed a free passage from the lungs there being no contacts or obstructions by any of the vocal organs, and the sounds thus produced

depend for their quality or differences on movements of the tongue and the position of the lips which are not closed; and usually, the vocal cords are vibrating. The contoids are those speech sounds which have the following characteristics: the airstream is not allowed a completely free passage, but is generally impeded by some contact or narrowing of two or more of the vocal organs so that there is audible friction. The vocal cords may or may not be vibrating. The terms vocoids and contoids were introduced into phonetics by the American linguist **K.L. Pike** with the intention to keep the traditional terms **vowel** and **consonant** for use exclusively as phonological terms. Nevertheless, many authors do not distinguish between them. Therefore, in this textbook we shall prefer the more common terms, vowels and consonants.

1.1.1 Consonants

Most of the sounds (phones) called consonants in English belong to the class of the above-defined contoids. They can be classified according to the following criteria:

a) The kind of stricture, i.e. the manner of articulation.

b) The place of articulation - relative position of two movable parts (active articulators) or a movable and a fixed part (fixed part = passive articulator).

c) The opposition **voiced - voiceless** depending on the vibration of the vocal cords.

d) The position of the soft palate that determines whether a sound will be oral or nasal (see nasals).

The following table takes into consideration the first and the second criteria:

		Bilabial	Labio-Dental	Dental	Alveola	Post-Alveola	Palato-Alveolar	Palatal	Velar	Glottal
A.	Plosive	p, b			t, d				k, g	
	Affricate					(tr, dr)	tʃ, dʒ			
	Fricative	(ʍ)	f, v	θ, ð	s, z		ʃ, ʒ		h	
B.	Nasal	m			n				ŋ	
	Lateral				l					
	Frictionless Continuant or glides (semi-vowels)	w				r		j		

Since the criterion and the terms concerning the place of articulation are self-explanatory and do not require any comment, the following lines give a list and definitions of various types of sounds according to the manner of articulation:

Plosives: Complete closure of part of the respiratory tract, and behind the place of closure air pressure builds up and is released explosively when the respiratory tract is opened.

Affricates: Complete closure of part of the mouth, and behind the place of closure air pressure builds up. Slow release of the pressure causes friction by the air stream.

Nasals: Complete closure of the mouth with the soft palate lowered so that the airstream finds a passage through the nose.

Fricatives: Near closure of two organs, so that when the airstream passes through, it causes friction.

Laterals: Partial closure in the mouth, as of, for instance, the tongue against the hard palate, and the air-stream escapes on one or both sides of the point of contact.

Flap: Short contact of a flexible part on a firm one, as of the blade of the tongue on the alveolar ridge.

Roll: A series of taps made by a flexible part on a firm one.

Glottal stop: In the case of the glottal stop (plosive), the obstruction to the airstream is formed by the closure of the vocal cords, thereby interrupting the passage of air into the supra-glottal organs. The air pressure below the glottis is released by the sudden separation of the vocal cords. The glottal stop serves for many RP-speakers as a syllable boundary marker, when the initial sound of the second syllable is a vowel, as in *co-operate, geometry, reaction.* Sometimes it is used instead of a possible intrusive /r/, e.g. *law and order, drama and music.* Some speakers apply it in cases where a regular linking /r/ is permissible, e.g. in *later on, far off,* etc. Furthermore, any initial accented vowel may be reinforced by a preceding glottal stop when particular emphasis is placed on the word.

1.1.2 Consonant modifications

Out of a number of consonant modifications occurring in various languages, the most typical for English is **aspiration.**

Aspiration is a very common modification that in English affects voiceless plosives /p, t, k/ at the beginning of a syllable when followed by a stressed vowel (as in *pin, tin, kin, impinge, until, akin*). They are unaspirated in certain other positions, for example, after /s/ - even when followed by a stressed vowel, e.g. *spill, still, skill,* or at the end of a word (*nip, nit, nick*). An aspirated plosive is distinguished from a simple one by the fact that the former is followed by audible air friction, a small puff of air.

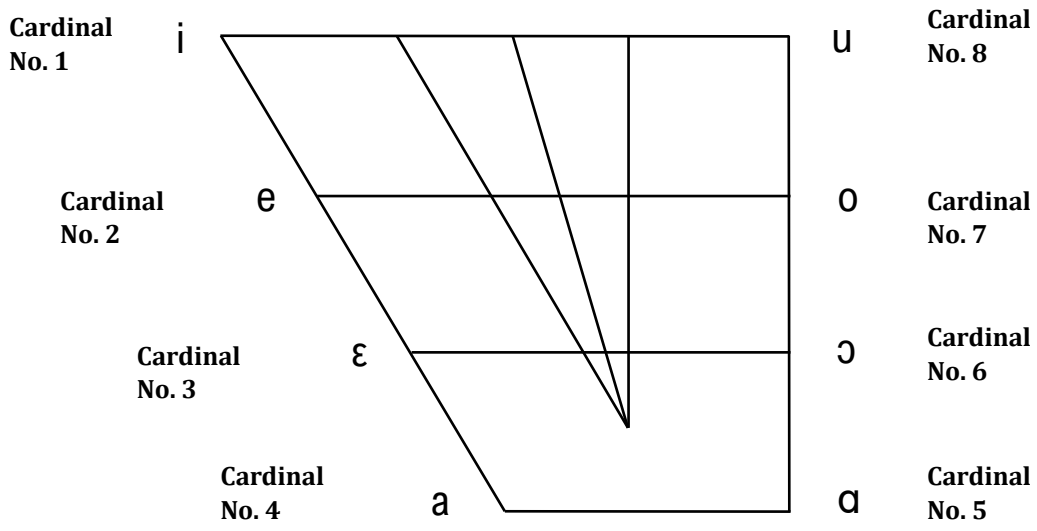
Another type of modification is typical of English plosives and affricates. /p, t, k, tʃ/ are produced with more muscular effort than /b, d, g, dʒ/; the former are said to be **fortis,** the latter

are **lenis.** Actually, this distinction between fortis and lenis is as important in English as the distinction between voiced and voiceless, since in some positions (especially in rapid speech) the voicing of the "voiced" plosives is inaudible.

1.1.3 Vowels

Vowels are usually described based on a frame of reference called **Cardinal Vowel Scheme.** The system of cardinal vowels represents standard reference points for identifying vowels based on tongue position along two dimensions: **open** vs. **close** and **front** vs. **back.** A given point corresponds roughly to the position in the mouth of the highest point of the tongue in the production of that vowel. At the same time, the vowels correspond to the greatest articulatory effort necessary for their articulation. Cardinal vowels are not sounds of any particular language, they are artificial constructs.

Cardinal Vowel Scheme



All English vowels are voiced. In their classification, three criteria are usually taken into account:

a) The duration of the sound: opposition short - long

b) The kind of opening made by the lips: spread - neutral - rounded

c) The position of the highest part of the tongue: high - low, and front - central - back, respectively.

1.1.4 Vowel modifications

1. Differences in **tension** are quite frequent, though they are less often independently distinctive than other features of vowels.

2. Differences in **length:** some varieties of English have contrasts in length. For example, some speakers will distinguish the words *have* (as in *I have it*) from *halve* (as in *You should halve it*), primarily by the greater length of the latter. The difference between *merry* and *Mary,* for some speakers who distinguish them, is primarily in the length of the vowel (the latter being longer). Other common examples are *mirror* vs. *merer* (with lengthened i), *terrible* vs. *tearable* (with lengthened ɛ), etc.

1.1.5 Semivowels

English has two sounds [j] and [w] which are phonetically vocoids, but which in English function in a consonant-like way, i.e. they only occur before vowel phonemes. [j] starts from the position of [i:] with the lips slightly spread or neutral and glides quickly to the following vowel. The sound [w] starts from the position of [u:] with the lips rounded and glides quickly to the vowel that follows it.

1.1.6 Diphthongs

A diphthong is a combination of two vowels produced one immediately after the other with no intervening stopping of the air-stream, and the two sounds, as it were, glide into each other. In English the glide always falls away from the first of the pair to the second.

English diphthongs are:

[ei], [əu], [ai], [au], [ɔi], [iə], [ɛə], [uə]. The last three diphthongs are called **centring diphthongs** in regard to the direction of their movement. The remaining diphthongs are called **closing diphthongs** because they end with a glide towards a closer vowel.

1.1.7 Triphthongs

The most complex English sounds of the vowel type are triphthongs. A triphthong is a glide from one vowel to another and then to a third, all produced rapidly and without interruption. The triphthong can be looked on as being composed of the five closing diphthongs with [ə] added at the end. Thus, English distinguishes the following triphthongs:

ai	+ə	=	aiə	as in tyre, hired
au	+ə	=	auə	as in tower, hours
ɔi	+ə	=	ɔiə	as in coir, loyal
əu	+ə	=	əuə	as in lower, mower
ei	+ə	=	eiə	as in layer, player

1.2 Acoustic phonetics

As mentioned above, acoustic phonetics studies the transmission of sound waves through the air, the physical properties of speech-sounds. The properties that characterize sound waves are:

a) **Amplitude** - the greater the amplitude the louder the sound.

b) **Frequency** - the number of oscillations per second. The higher the frequency the higher in scale the pitch.

c) **Simplicity** or **complexity** - complex sound waves involve waves of different frequencies superimposed on one another.

Acoustic phonetics is a highly technical study which depends heavily on very sophisticated measuring instruments. The main instrument is the **sound spectrograph,** which produces a frequency profile of a sound showing the amount of energy present at each frequency. These pictures of sounds, known as **spectrograms,** show that certain sounds (all vowels and other continuant sounds such as [m] or [l]) have most of their energy concentrated at particular characteristic frequencies (formants). The remaining sounds are characterized by more diffuse or random acoustic energy. The most important formants are the first two. **Formant one** depends on the configuration of the vocal tract behind the highest part of the tongue, and **formant two** depends on the shape of the cavity in front of the highest part of the tongue.

Until recently, the acoustic analysis of speech has been a slow and laborious business, which permitted to analyze only small samples of speech. However, recent developments and the use of computers are making it possible to plan an analysis on a much larger scale. It is possible to get a precise computer analysis of the fundamental frequency of speech displayed on a screen. Moreover, a computer can be used to produce a simple phonetic transcription of what is said to it.

1.3 Auditory phonetics

It still remains the task of auditory phonetics to discover more about how the listener's brain identifies what it receives from the ear. Experiments have shown how sensitive we are to very slight acoustic differences and how flexible we are in being able to adjust to very different speakers. We are also very strongly influenced by our expectations: if we have heard and understood half a sentence, it seems that our brain is already guessing at what the rest of it will be before it is heard. Also here, technological development is of great value, in particularly the so-called speech synthesis and computer technology.

1.4 Suprasegmental features

Speech is essentially a continuum of articulation. A whole set of phonologically relevant elements can then be defined as the domains of various suprasegmental elements - this set is called the **phonological hierarchy.** The relations between the various elements of the phonological hierarchy are simple: a sentence consists of one or more **intonation-groups,** each of which consists of a sequence of **stress-groups,** each of which consists of a sequence of one or more **words,** each of which consists of a sequence of one or more **syllables.**

1.5 Syllable

There are two theories about the ways in which syllables are formed phonetically. One, called **prominence theory,** says that in any flow of speech some sounds are more prominent than others, i.e. they are produced with little or no obstruction to airflow, and sounding comparatively loud, thus segmenting the speech into - in Darbyshire's words (1971), "troughs" and "crests" on the analogy of wave motion. "Crests" form the nucleus of syllables and "troughs" mark the boundaries between two syllables. Thus, in such word as *underneath* [ʌndəni:θ] the crests are the sounds [ʌ,ə,i:] and the troughs are at the sounds [n,d,n,θ] - hence the word *underneath* is said to have three syllables.

The second theory, called **pulse theory,** claims that syllables can be detected by means of pulses of muscular action which control the movements of the lungs as the airstream is expelled from them. In the utterance of a flow of speech the number of chest pulses can be counted, and these chest pulses are accompanied by increases in air pressure which correspond to the number of syllables uttered. The syllable as such, however, must be treated specifically for each language.

As far as the structure of syllables is concerned, there can be distinguished three different constituents: the **onset;** the most prominent sound, i.e. vowel, except for [ə], also called the **centre;** and the **termination.** If the first syllable of the word begins with a vowel, the syllable has a zero onset. If there is no consonant at the end of the syllable, we say that there is a **zero termination.** Hence, a “complete” syllable structure is CVC. Nevertheless, there are many other possible combinations of vowels and consonants in English, the various patterns being:

V, CV, C^cV, VC, VC^c, CVC, C^cVC, CVC^c, C^cVC^c,

where C = consonant, V = vowel, C^c = consonant cluster.

When words are used in connected speech some syllables appear to be more prominent than others. This variation of prominence is mainly due to the stress, pitch and length.

Length is the comparative duration of time taken for the utterance of a syllable. **Pitch** is the acoustic result of the speed of vibrations of the vocal cords in the voiced parts of utterances - the greater the frequency the higher tone of the sound. **Stress** is characterized from the articulatory point of view by greater intensity of the utterance on the part of the speaker, acoustically by sound waves of greater amplitude.

The stress system of English is both fixed and free. That is to say, in normal circumstances, the same word is stressed always in the same way, however, the stress is not fixed to one particular syllable in all words as it is in Slovak.

To illustrate the point, stress falls on a different place in each of the following four words: *solitary* [ˈsɔlitəri]; *dependency* [diˈpendənsi]; *automation* [ɔːtəˈmeiʃən]; *carabineer* [kærəbiˈniə]. In longer English words different degrees of stress are common - the **primary** or **full stress**, and the **secondary stress.**

It has long been claimed that there are no rules concerning the position of the stress in English words. However, recent work based on the theory of generative phonology has revealed such rules, though practically all such rules have exceptions. In order to decide on stress placement, it is necessary to make use of some or all of the following information:

1. Whether the word is morphologically simple or complex.
2. The grammatical category of the word (*noun, verb, adjective,* etc.)
3. The number of syllables in the word.
4. The phonological structure of the syllables.

Obviously, monosyllabic words present no problem - if they are pronounced in isolation they are said with primary stress. With two-syllable words the choice is still simple: either the first or the second syllable will be stressed - not both. The basic rule for verbs is that if the second syllable contains a long vowel or diphthong (except əu), or if it ends with more than one consonant, that syllable is stressed: *apply* [əˈplai], *arrive* [əˈraiv], *attract* [ə'trækt]. Otherwise, it is the first syllable which is under stress. The same rule applies to adjectives. Nouns require a different rule: if the second syllable contains a short vowel, the stress will usually come on the first syllable. Otherwise, it will be on the second syllable: money [ˈmʌni], *product* [ˈprɔdʌkt], *estate* [iˈsteit], *design* [diˈzain].

A more complicated picture is provided by trisyllabic words. With verbs, if the last syllable contains a short vowel and ends with not more than one consonant, that syllable will be unstressed, and stress will be placed on the preceding syllable: *determine* [diˈtəːmin], *encounter* [inˈkauntə]. If the final syllable contains a long vowel or diphthong, or ends with more than one consonant, that final syllable will be stressed: *entertain* [entəˈtein], *resurrect* [rezərˈekt].

Nouns require a different rule. Here, if the final syllable contains a short vowel or [əu], it is unstressed; if the syllable preceding this final syllable contains a long vowel or diphthong, or if it ends with more than one consonant, that middle syllable will be stressed: **disaster** [diˈzɑːstə], **potato** [pəˈteitəu], **synopsis** [siˈnɔpsis]. If the final syllable contains a short vowel and the middle syllable contains a short vowel and ends with no more than one consonant, both final and middle syllables are unstressed and the first syllable is stressed: *quantity* [ˈkwɔntiti], *cinema* [ˈsinəmə], *emperor* [ˈempərə]. These are only a few out of a number of rules that should illustrate the fundamental principles. As mentioned above, special rules apply to simple and complex words, to lexical words as opposed to function (grammatical) words. A special group is represented by loanwords.

1.6 Juncture

Another important feature of utterances from the point of view of stress and rhythm is the so-called juncture. It is related to such differences in pronunciation as between *nitrate* and n*ight rate.* The distinction is not in the sounds of the phonemes or their allophones, nor is it in the stress pattern, but in the transition between the syllables of each pair. The same can be noticed in such pairs as *mistake/Miss Take, a name/an aim, pea stalks/peace talks,* etc. What helps the hearer to distinguish between these two different meanings (apart from the context) is the boundary between two subsequent morphemes having the form of a pause between *night* and *rate* as opposed to *nitrate* pronounced without any pause. Some linguists consider the pause to be a phoneme with regard to its distinctive function. The transition between *night* and *rate*, or *Miss* and *take* is called **open transition,** in the latter case (*nitrate, mistake*) we speak about **close transition.** Phonetically speaking, sounds preceding a juncture have the characteristics of sounds occurring at the end of an utterance, though perhaps less marked. Vowels in these positions tend to be more lax than the same phonemes in other positions, and with a noticeable fading of volume toward the end. Thus, the [e] in *say more* is longer and laxer than the [e] in *same ore.* The same phoneme at the end of an utterance, as in *I say* or *Go away* would be still longer and laxer. Correspondingly, sounds which follow a juncture have some of the characteristics of sounds occurring at the beginning of a sentence.

It should be noted once more that in Bloomfieldian (Bloomfield 1973) conception of phonology, juncture is considered a kind of phoneme because it has the same properties: though it has no meaning, it has a meaning-distinctive function.

1.7 Strong and weak words

In English, there are roughly 40 words that can be pronounced both strong and weak. In this connection, we must distinguish between **weak forms** on the one hand, and **contracted forms** on the other hand, examples of the latter being *it's, we've, I'll, don't,* etc. Almost all the words that have both a strong and a weak form belong to the category of grammatical words (auxiliary verbs, prepositions, conjunctions, etc.). It is important to remember that there are certain contexts where only the strong form is acceptable, and others where the weak form is the normal pronunciation. We can say that the strong form is used in the following cases:

1. At the end of the sentence: *Chips are what I am fond of* [ɔv]; not [əv]

2. When a weak form word is being contrasted: *The letter from him, not to him* [frɔm, tu:]; not [frəm, tə]

3. For the purpose of emphasis: *You MUST give me more money* [mʌst]; not [məst]

4. When a weak form word is being "quoted": *You shouldn't put "and" at the end of a sentence* [ænd]; not [ənd].

1.8 Modifications in connected speech (Sandhi rules)

Sandhi is a term of Sanskrit origin (literally meaning "linking") designating the phonetic changes of a word according to its position in a sentence, i.e. various changes in words as a result of their mutual influence on each other when used in conjunction. Since the selection of the particular allophone is conditioned by a neighbouring sound, the type of change is also called **phonological conditioning.** As illustrated by Matthews (1975) English words such as *hair* or *murder* end with their final vowel or diphthong when they are followed by a consonant, but with an added [r], the so-called *linking-r,* when the next form begins with a vowel: *hair-do* [hɛədu:] and *murder case* [mə:dəkeis], vs. *hair oil* [hɛərɔil] and *murder investigation* [mə:dərinvestigeiʃn]. The extent of this phenomenon varies for different speakers, different speaking styles, and different grammatical or other contexts. At the same time, this kind of alternation is also found within word boundaries.

In derived forms such as *rainy* or *speaker* the roots [rein] and [spi:k] are followed directly by the affixes with vowel realization [i:] and [ə]. But in some other words such as *hairy* or *murderer* the roots would in isolation end in vowels [hɛə] and [mə:də], and again a linking-r intervenes to form [hɛəri] or [mə:dərə]. Thus, we can distinguish between **external** and **internal sandhi.**

Many RP-speakers use the linking-r in a similar way to link words ending with a vowel even when there is no "justification" in the spelling:

Formula A [fɔːmjuləreɪ]

Australia all out [ostreiliərɔːlaut]

Apart from the above-mentioned cases of linking r, there are also other types of Sandhi: assimilation and elision.

1.8.1 Assimilation

Assimilation is a process whereby two dissimilar sounds become more similar when close to each other, e.g. [n] in *sane* assimilates to the [p] at the beginning of *people* by becoming [m]; i.e. the alveolar [n] becomes a bilabial because of the bilabial [p] following it. This type of assimilation is called **regressive** (the phoneme that comes first is affected by the one that comes after it). The reverse process is called **progressive** assimilation. There are three kinds of assimilation pertaining to the place of articulation, manner of articulation and voicing.

1.8.1.1 Assimilation of place

This type is illustrated by the above example *sane people*, and is only noticeable in the regressive assimilation of alveolar consonants.

1.8.1.2 Assimilation of manner

This type is much less noticeable, and is only found in the most rapid and casual speech. The tendency is again for regressive assimilation and the change is towards an 'easier' consonant - one which takes less obstruction to the airflow. It is possible to find cases where a final plosive becomes a fricative or nasal: *that side* [ðæssaid], *good night* [gunnait].

1.8.1.3 Assimilation of voice

This can be illustrated by the progressive assimilation with the endings [s] and [z] in the 3rd person sg. of verbs, or plural nouns: the ending is pronounced as [s] if the preceding consonant is voiceless and [z] if the preceding consonant is voiced: *cats* vs. *dogs*. A different kind of assimilation of voice is, for instance, the change of [v] as found in have to [f] as in *have to* [hæftə].

1.8.2 Elision

The nature of elision consists in the fact that, under certain circumstances, sounds disappear. Elision is typical of rapid, casual speech. Some of the examples are as follows:

1. Loss of a weak vowel after p,t,k due to the aspiration:

[phˈteitəu], [thˈmaːtəu] with the loss of [ə]

2. Avoidance of complex consonant clusters:

George the Sixth's throne [....siksθrəun] instead of [siksθsθrəun].

3. Loss of final [v] in **of** before consonants:

lots of them [lɔtsəðəm]

waste of time [weistətaim].

1.9 Intonation

The most important part in intonation is played by **pitch.** We describe pitch in terms of **high** and **low,** referring to the endpoints of the pitch scale. From the point of view of an overall behaviour of the pitch within the utterance (a continuous piece of speech beginning and ending with a clear pause), we can distinguish a **level tone,** a **falling tone,** and a **rising tone.** In addition to these three fundamental types of intonation, there are also complex tones: fall-rise, where the pitch descends and then rises again, and rise-fall in which the pitch follows the opposite movement. These types can be identified on a small number of particularly prominent syllables. Namely, for the purpose of analyzing intonation, a unit greater in size than the syllable is needed, and this unit is called the **tone-unit.** A syllable carrying a tone in a tone-unit is called **tonic syllable.** A tonic syllable not only carries a tone but - having a high degree of prominence - it carries the so-called **tonic stress.** Some authors use terms **nucleus** and **nuclear stress** for tonic syllable and tonic stress, respectively. A tone-unit may be simple or compound. Each simple tone unit has only one tonic syllable. Other components of the tone-unit are the **head,** the **prehead,** and the **tail.** The head is all that part of a tone-unit that extends from the first stressed syllable up to the tonic syllable. The pre-head is composed of all the unstressed syllables in a tone-unit preceding the first stressed syllable. Any syllables between the tonic syllable and the end of the tone-unit are called the tail.

So far we have talked about the form of intonation. A few words should be added about its functions. These can be summarized as follows:

1. **Attitudinal function** - intonation enables us to express emotions and attitudes as we speak

2. **Accentual function** - intonation helps to highlight, to emphasize the most prominent part of an utterance

3. **Grammatical function** - intonation makes it possible to recognize the grammar and syntactic structure of what is being said, e.g. the differences between questions and statements, grammatical subordination, the placement of boundaries between phrases, clauses or sentences, etc.

4. **Discourse function** - looking at the act of speaking in a broader way, intonation can signal the listener what is to be taken as “new” information and what is already “given” (see

Functional sentence perspective in the chapter on Syntax), it may indicate a contrast, convey to the listener what kind of response is expected, etc.

1.10 Transcription

It is characteristic of the English language that the spelling differs from the pronunciation. For instance, the sound represented by *ee* in *been* also occurs, but differently represented, in *key, people, field, receive, leaf, he, quay* and *machine*. This fact is related to the historical development of English. Hence, it is desirable to have some kind of notation that will overcome these inconsistencies in spelling-pronunciation relationship, and provide a system of one-to-one correspondence between sound and its symbol.

The desirable device has been provided by various systems of transcription. Systems of transcription make use of symbols whose only purpose is to indicate on paper precisely the sounds or sound features into which an utterance has been analyzed. Such transcriptions whose sole aim is accuracy of phonetic detail are called **narrow transcriptions,** to be distinguished from **broad transcriptions** which make use of fewer different symbols but rely on some further linguistic analysis. An example of a narrow transcription is the **International Phonetic Alphabet** that was devised to provide a precise and universal means of writing down the spoken forms of utterances as they are spoken without reference to their orthographic representation, grammatical status, or meaning.

However, it proved rather unwieldy. It was discovered that transcriptional systems of far fewer symbols and diacritical signs could be devised for each language separately, to serve the purpose of unambiguous representation of the pronounced forms. These are called broad transcriptions. They are characterized - as opposed to the potentially infinite number of distinct symbols in narrow transcription - by a minimal number of symbols. In broad transcription, two facts are highlighted:

1. Many of the differences between sounds in a language may be shown to be conditioned by the phonetic environment of each sound, and therefore, they do not need separate symbolization.

2. This conditioning by the environment differs from language to language. It follows then that a broad transcription must be worked out for each language separately.

THE INTERNATIONAL PHONETIC ALPHABET.

(Revised to 1951.)

		Bi-labial	*Labio-dental*	*Dental and Alveolar*	*Retroflex*	*Palato-alveolar*	*Alveolo-palatal*	*Palatal*	*Velar*	*Uvular*	*Pharyngal*	*Glottal*
CONSONANTS	*Plosive*	p b		t d	ʈ ɖ			c ɟ	k g	q ɢ		ʔ
	Nasal	m	ɱ	n	ɳ			ɲ	ŋ	N		
	Lateral Fricative			ɬ ɮ								
	Lateral Non-fricative			l	ɭ			ʎ				
	Rolled			r						R		
	Flapped			ɾ	ɽ					ʀ		
	Fricative	ɸ β	f v	θ ð | s z | ɹ	ʂ ʐ	ʃ ʒ	ɕ ʑ	ç j	x ɣ	χ ʁ	ħ ʕ	h ɦ
	Frictionless Continuants and Semi-vowels	w | ɥ	ʋ	ɹ				j (ɥ)	(w)	ʁ		
VOWELS								*Front* / *Central* / *Back*				
	Close	(y ʉ ɯ)						i y / ɨ u / ɯ u				
	Half-close	(ø o)						e ø / ɘ / ɤ o				
	Half-open	(œ ɔ)						ɛ œ / ɜ / ʌ ɔ				
	Open	(ɒ)						æ ɐ / a / ɑ ɒ				

2 PHONOLOGY

2.1 General

The level of phonology is concerned with the functioning of sound-units within the systems of individual languages. Phonology is much younger than phonetics. Its beginnings can be traced back to the turn of the 19th and 20th centuries, although the concept of phoneme was not absolutely new at that time. **Henry Sweet** and the French **Paul Passy** maintained that it is necessary to distinguish those articulatory sound features that directly contribute to the distinction of the meaning of words. The Swiss dialectician **Jost Winteler** used for the description of a sound inventory of an examined dialect, phonological criteria as early as 1876. In 1878, it was **F. de Saussure** who used the term *phoneme* for the designation of a sound element that - irrespective of its concrete articulation - can be clearly distinguished from other elements of the same phonological system. Later on, he included in the conception of the phoneme also a psychological criterion. The most important role as to the development of the theory of phonemes was played by the **Kazaň School** represented by **Jan Baudouin de Courtenay,** and **M. Kruszewski.** Baudouin de Courtenay pointed out that sound values contribute to the distinction of meaning. The idea of distinguishing between sounds and phonemes comes from his student M. Kruszewski. American descriptivists, represented mainly by **E. Sapir** and **L. Bloomfield** also worked out their principles of phonology. Nevertheless, the analysis of the phoneme as a scientific concept was first systematically undertaken by N**. Trubetzkoy,** the Russian linguist and a distinguished representative of the Prague School of Linguistics, in his well-known, posthumously published work *Grundzüge der Phonologie* (1939).

2.2 Units

2.2.1 Phoneme and allophone

The basic unit of phonology is the **phoneme. E.C. Fudge** (1973) distinguishes four main approaches to phoneme:

1. The **Mentalistic** or **psychological view,** which regards the phoneme as an *ideal* sound at which the speaker aims. He deviates from this ideal sound partly because it is difficult to produce an identical repetition of a sound and partly because of the influence exerted by neighbouring sounds. This view originated with the Polish linguist **Jan Baudouin de Courtenay.**

2. The **physical view,** which regards the phoneme as a *family* of sounds satisfying certain conditions, notably:

a) The various members of the family must show phonetic similarity to one another.

b) No member of the family may occur in the same phonetic context as any other, this condition is referred to as the requirement of **complementary distribution** (see below). This standpoint is represented by the English phonetician **D. Jones** in his work *The Phoneme: Its Nature and Use* (1950).

3. The **functional view,** which regards the phoneme as the minimal sound unit by which meaning may be differentiated. Meaning differentiation is taken to be a defining characteristic of phonemes. Therefore, the most important role is assigned to **distinctive features.** Thus, [k] and [q] in English do not differentiate meanings, and hence cannot be definitely assigned to different phonemes, but both form allophones of the phoneme /k/. This position was taken by **L. Bloomfield, N.S. Trubetzkoy** and **R. Jakobson.**

4. The **abstract view,** represented by **E. Sapir** and also advocated in the approach of the **Copenhagen Linguistic Circle** (Hjelmslev, Uldall, Togeby), regards phonemes as essentially independent of the phonetic properties associated with them.

Such non-phonetic criteria used in assigning sounds to phonemes can be the *involvement in morphological alternations,* or *distributional similarity in syllables.*

Thus, for example, [i] and [ai] as occurring in *divinity-divine* represent one phoneme because they are related by morphological alternation. The same applies to [æ] and [ei] in *sanity-sane,* etc.

In contrast to the units of higher levels (morphemes, words), the phoneme is not a bilateral unit. It has a form, however, it does not have any meaning. It only has a **distinctive function,** i.e. it can distinguish the meaning of words. It refers to a generalized conception of a speech-sound belonging to a particular language. It must be remembered that phonemes are not concrete sounds, but abstract units covering a certain stretch in the continuum, allowing for certain variations in the pronunciation while preserving the fundamental features of these sounds. The variations are threefold:

1. Variation tolerated from one repetition of an utterance to another; in other words, variation tolerated within the norm of pronunciation of a given sound in a given position within one variety of speech.

2. Variation of pronunciation of a sound according to the position in which it occurs.

3. Variation of pronunciation from speaker to speaker.

A variation in the way any phoneme is realized in actual speech is then called the **allophone.** The features which are common for all allophones of one and the same phoneme and which allow to distinguish it from all other phonemes are called **distinctive features.**

The relation between phonemes and their different manifestations (allophones) can be illustrated by English /p/, /t/, /k/: when pronounced in initial position, they are aspirated [p^h], [t^h], [k^h] as in *ten, pen, kettle.* But immediately following the initial [s] they are without aspiration, as in *steam, spark, sky.* As aspirated [p^h], [t^h], and [k^h] and non-aspirated [p], [t], and [k] cannot replace one another in the same environment - as opposed to, e.g./p/ and /b/ in *pan* vs. *ban,* which is projected on a different meaning of the two sequences of sounds - they do not distinguish one utterance from another. In other words, if we replaced one with another, the meaning of a particular word would not change. It follows that they represent different manifestations of one and the same phoneme, being in the so-called **complementary distribution** (not occurring in the same environment and, therefore, not distinctive). There is another case of different pronunciation of sounds belonging to the same phoneme, i.e. **free variation:** where two phonetically different sounds may occur in the same environment but are always interchangeable therein in all utterances, they are equally non-distinctive, and are grouped into the same phoneme. We cannot predict from speaker to speaker, or sometimes even from occasion to occasion with the same speaker, which one will occur.

Other typical examples of allophonic differences in English.

1. “Clear” and “dark” /l/ as occurring in *lip* vs. *pill.*

2. The RP-phoneme /r/ has probably more allophones than any other English consonant. When it immediately follows [t] or [d] as in *train, drain,* the two consonants make almost one sound and /tr/, /dr/ are classified by some authors as phonemes - post-alveolar affricates. In such words as *merry, sherry, Mary,* an alveolar tap can be heard. In such words as *course, form, heard, water, daughter,* there may be some degree of *retroflexion* (the pronunciation of a speech-sound with the tip of the tongue curled back to touch or nearly touch the hard palate at the top of the mouth), a survival of former post-vocalic [r].

3. Three slightly different qualities of the vowel /ə/ are heard in many speakers, a lower central vowel in utterance final position as in *china* [ˈʧainə], and *colour* [ˈkʌlə], a higher and rather back vowel when the /ə/ in non-final position adjoins a /k/ or a/g/, in *again* [əˈgein], and a vowel somewhat between the two in other environments, as in *along* [əˈloŋ], *salad* [ˈsæləd].

In general, all English vowels are pronounced with slightly shorter duration before syllable-final fortis (voiceless) consonants than before syllable-final lenis (voiced) consonants, without obscuring the relatively greater length of the distinctively long vowels (e.g. *hit* [hit], *hid* [hid] and *heat* [hi:t], *heed* [hi:d].

Generally speaking, many of the allophonic differences are caused by the relatively different position of vocal organs in continuous speech, based on the environment, i.e. the particular pronunciation depends on the preceding and following sounds.

In addition to allophones, one must distinguish the so-called **diaphones.** The diaphone is a unit of phonological analysis used to represent the fact that two different accents may use different pronunciations of the same phoneme; e.g., the phoneme /æ/ is [æ] in the south of England and [a] in the north of England.

2.2.2 Commutation

The delimitation of phonemes is done by means of the technique called commutation or the discovery of **minimal pairs.** The term minimal pair is used for minimally different pairs of words, such as *beet - bit,* that is words that differ by one element only. If we can take a sound out of a word and put another in its place to form a different word, then we have found two phonemes of the language, the one we took out and the one we put in.

2.3 Conceptions

As already mentioned above, the cornerstone of phonology was laid by **N. Trubetzkoy** (1939). His theory is based on **distinctive features.** The phoneme can be broken down into fundamental features (phonological components). For example, the English phoneme /t/ is distinguished by its voicelessness from /d/; by its **apicalness** from labials such as /p, b/, palatals such as /j, ʃ/ and velars such as /k, g/; its **plosiveness** from nasals, fricatives, laterals, vowels, etc. Each of these features is a distinctive feature permitting to distinction the individual phonemes, and therefore, distinctive features are considered basic units of phonological systems. It is this distinctiveness that unites the various allophones of the phoneme and makes it possible to consider them as the same. A case in point is the English phoneme /h/, which can be either voiced or voiceless, and which can have a great variety of tongue positions since it usually anticipates the quality of its following vowel. In spite of these variations, all allophones of /h/ are distinguished from other segments by the features (-vocalic), (-consonantal), (+continuant). Not all of the articulatory-acoustic features of phonemes are, however, of equal importance. The phoneme is thus that minimum of articulatory and acoustic features which is necessary for the process of understanding. Trubetzkoy was the first to define the relationship

between the invariable speech unit, the phoneme, and its concrete (and variable) manifestations: If two sounds of the same language in the same context cannot be replaced without the change of word meaning, they are two different phonemes. If such a replacement is possible without interrupting the meaning of the word, then these two sounds are **facultative variants** of a single phoneme. And finally, if two articulatory and acoustically related sounds can never occur in the same environment, they are **combinatory variants** of a phoneme. As it can be seen, important are **distributional criteria.**

The theory of distinctive features is based on a **binary principle.** Binary features are those which have only two values, one of which can be regarded as the absence of the other, such as voiced vs. voiceless, or plosive vs. continuant. The contrast between the presence and absence of a feature, or between two distinctive features, is called **opposition.** One of the pair of opposition is always **marked,** the other being **unmarked.** In the opposition voiced – voiceless /b - p/, the former one is marked (the feature of voice).

In regard to the whole system of phonemes, Trubetzkoy distinguishes:

1. **Unidimensional oppositions** - the base common for both phonemes in opposition does not occur in other pairs of phonemes (e.g. t - d, because these are the only English alveolar plosives).

2. **Multidimensional oppositions** - the common base occurs in more than two phonemes (e.g. p - t - k, because they feature the same common base - they are voiceless oral plosives).

3. **Proportional oppositions** - the relation between two phonemes occurs in several pairs of phonemes (e.g. pairs p - b, t - d, k - g).

4. **Isolated oppositions** - the given relation between two phonemes does not occur elsewhere, e.g. /r - l/.

As to the mutual relations between the members of the opposition, Trubetzkoy distinguishes:

1. **Privative oppositions** - the difference between the phonemes is based on the presence vs. absence of a particular distinctive feature.

The former member is called **marked,** the latter **unmarked,** e.g. voiced and voiceless consonants in English having all other features in common: d-t, z-s, v-t.

2. **Gradual oppositions** - the members differ by a different degree of a feature (e.g. closed half closed - /half open/ - open vowels).

3. **Equipollent oppositions** - the members of the pair differ in several features (e.g. the difference between p and f).

The proportional, unidimensional and privative opposition is then called **correlation,** for example:

p - t - k unmarked members (absence of voice)

b - d - g marked members (presence of voice)

Finally, there are *constant* and *neutralizable oppositions*. The former hold in every context, while the latter refers to the possibility of neutralizing an opposition in certain environments. This can be illustrated by English nasals. Although the nasal phonemes are distinct before vowels, the oppositions between them are suppressed or neutralized whenever another consonant follows. The nature of this neutralization may be expressed in terms of distinctive phonological features, As a phoneme, /m/ is labial and nasal, /n/ alveolar and nasal, and /ŋ/ palatal and nasal; it is by these features that the units are distinguished both from each other and from plosives (e.g. labial voiceless plosive /p/), fricatives (e.g. voiceless dental sibilant /s/), and so on, which make up the remainder of the consonant system. When the oppositions are neutralized, the phonemes lose the features which are individual to each (in this case, labial, alveolar and velar), and we are simply left with those which they have in common (in this case, nasal). According to the theory of the Prague school, pre-consonantal /m/, /n/, /ŋ/, are all phonologically identical; their more specific features bilabial, labiodental, etc., belong purely to the level of phonetic realization. The unit which they are said to represent is called **archiphoneme.** The archiphoneme is neither the same as any of the individual phonemes /m/, /n/, or /ŋ/, nor yet wholly different from them. It is the unique set of distinctive features ("nasal") common to all three.

As it follows from the previous description, Trubetzkoy's theory hinges on the oppositions from the articulatory point of view. **Roman Jakobson,** a close associate of Trubetzkoy in the Prague School of Linguistics, developed his phonological theory mainly after his departure to the USA (Jakobson – Halle 1956; Jakobson 1962). The articulatory basis of Trubetzkoy's distinctive features was largely replaced with sets of acoustically identified features. Some of the distinctions are the same as Trubetzkoy's such as oral/nasal, consonant/vowel, but some, such as grave/acute, compact/diffuse, are primarily acoustic features defined in acoustic terms, distinguished by the different sets of frequencies and differences in shape and structure displayed by the sound waves. **Jakobson** defines the phoneme as a sum of distinctive features. Jakobson's theory is based on the postulate that the distinctive oppositions are made up on the

principle of binarity (or dichotomy). It means that each opposition has two members, and is based on the presence and absence, respectively, of a particular distinctive feature. It is, however, interesting that some transformational-generative linguists returned to an articulatory based set of features, more akin to those used by Trubetzkoy.

All what has been said so far can be covered by the term **phonemic phonology,** which means that the above conceptions concentrate on the **paradigmatic relation of contrast** in a given **environment;** furthermore, all relevant phonetic features are assigned to phonemes occupying definite places in a linear succession of phonemes. The analysis is based upon the individual segments of the linear succession. This enables the linguists to set up an inventory of phonemes as the phonemic or phonological system of the language, wherein are contained all the phonetic distinctions employed by the language in communication.

Speech, however, is a continuous activity, and any descriptive segmentation into successions of consonants and vowels involves some misinterpretation of the actual material being described. Therefore, the so-called **prosodic phonology** of **J.R. Firth** and his associates, has never accepted this type of analysis, but has insisted that within the patterns of consonant and vowel phones there can be discerned units which are longer than phones. Prosodic analysis stresses the overlapping nature of sound pronunciation in speech. In contrast to the paradigmatic dimension of the phonematic phonology, Firth emphasizes both the **syntagmatic** and **paradigmatic dimensions.** Prosodic analysis employs as fundamental concepts two types of elements, **prosodies** and **phonematic units.** The latter are divided into consonants and vowels, while prosodies by definition are elements capable of extension over or relevance to sequences of phonematic units of any length.

The method can be instantiated as follows:

The phonetic property (or feature) which distinguishes the [nt] of the word *phantom* from the [nθ] of *anthem* is the point at which the tongue blade or tip makes a gesture towards the roof of the mouth. In *phantom,* the obstruction is at the alveolar ridge in which the upper incisor teeth are situated; in *anthem,* it is at the teeth themselves. These facts characterize the whole [nt] of *phantom* and the whole [nθ] of *anthem,* respectively; not primarily the [t] or [θ] and only secondarily the [n]'s. The positions of articulation (alveolar or dental) are the above-mentioned prosodies stretching over two phonematic units, and no part of them is discountable or redundant.

Chomsky and Halle's *The Sound Pattern of English* was an impetus for a rapid development of **generative phonology.** A set of distinctive features is used here not only for

the phonetic representation of a sentence (a specification of its pronunciation), but also at the phonemic level to give the sentence what is usually called its **phonological representation.** This representation has no necessary direct link with actual pronunciation: its aim is, as far as possible, to enable a root or an affix of the language to be represented in all its occurrences by the same sequence of phonological elements, irrespective of phonetic differences depending on context. Thus, such a basic phonological form underlies surface varieties. Hence, it is called the **underlier.** If we compare, for instance, the pronunciation of the word *absorb* and the stem of its derivative *absorption,* we obtain the opposition of [b] vs. [p] despite the relatedness of both words. It means, we can choose a common underlier to represent the element absorb/absorp- uniquely as [əbˈsɔːb]. This means that *absorption* is represented in the lexicon, where such forms are stored, as [əbˈsɔːbʃən]. But it is pronounced [əbˈsɔːpʃən]. Generative phonologists therefore need a process to convert [b] into [p] in the appropriate environment. This process is usually represented by a phonological rule. The method can be illustrated by the following rule:

$$0 \rightarrow [r] / V\,\% \_\_\_\_ + V$$

which means ‘an [r] is added after a certain group of vowels (%) at the end of an element, where any vowel follows’. The rule applies to many elements of English having two forms, with and without a final [r] in the pronunciation (linking-r):

hear	hearing
wear	wearing
jar	jarring
bother	bothering
ensure	ensuring

and countless others. There is a real [r]-sound in the words in the right-hand column, but not in those in the left-hand column. The above rule also specifies the underliers for the left-hand column without [r] and specifies the operation by which the elements in the right-hand column are pronounced with [r].

CHAPTER IV

Morphological Level

1 GENERAL

In traditional grammar, morphology is one of its two component parts, the other being syntax. As far as the term 'morphology' itself is concerned, some authors distinguish between morphology as a discipline dealing with inflections and word-forms, and **morphemics** focusing on morphemes and their arrangements, functions, etc. Irrespective of this division, morphology can be broadly defined as a subbranch of linguistics that deals with the internal structure of words (or better word-forms). It should be noted at the very outset that there is not agreement among linguists whether morphology includes word-formation too. Those who support this approach maintain that both morphology and word-formation work with morphemes as structural units of words. However, it should be noted that the nature of morphemes playing their indispensable role in word-formation differs from that of the so-called inflexional morphemes. In other words, morphology deals with morphemes as component parts of word-forms, whereas word-formation focuses on morphemes that generate new naming units (lexemes).

It should be noted that the above-mentioned uncertainty concerning the scope of morphology is not the only one. Recently, a number of linguists, mainly representing the transformational and generative approach, called in question the "autonomy" of morphology as if this branch of linguistics were "dissolved" in the remaining language levels. Thus, **A. Spencer** (1991) has it that morphology represents an interface between different components of grammar: the lexicon, syntax, phonology and semantics. He maintains that one of the trickiest questions facing those who research at an interface is where one component ends and another begins. There are numerous cases where it is very difficult to say whether the phenomenon should be regarded as morphological or whether it belongs to some other domain. A corollary of this line of questioning is whether morphology exists as an autonomous component at all. We should realize that the theory of generative and transformational grammar (see Chapter 7) leaves very little space for the morphological component. In addition, there are many partial issues standing on the borderline between morphology and phonology (hence, the existence of morphonology dealing first of all with the questions of allomorphy), or morphology and syntax (hence, the existence of morphosyntax).

For illustration we shall mention two instances.

1. **N. Chomsky** and **M. Halle** (1968) distinguish between two types of affixes (morphological components) associated with different boundaries: morpheme boundary affixes (**'+'**), and word-boundary affixes ('#'). **D. Siegel** (1979) uses the terms **class I** and **class II** affixes, respectively. They can be shown with respect to their phonological properties.

Class I affixes (e.g. +ion, +ity, +y, +al, +ic, +ate, +ous, +ive) may cause stress shift in the base to which they attach and trigger and undergo phonological processes.

Class II affixes (e.g. #ness, #less, #hood, #ful, #1y, #y, #like) are phonologically inert. They never cause stress shift. They are stress neutral.

Thus, for instance, the naming unit *productivity* is "generated" in the following steps: first we add the suffix *-ive* to the base *product* that has the stress on the first syllable. *-ive* being a class I suffix causes the shift of stress to the second syllable [prɔˈdʌktiv]. Then we add the suffix *-ity* which, again, belongs to class I. That means it causes another shift of stress. Therefore, *productivity* is stressed on the third syllable. In contrast to it, the naming unit *productiveness* has the stress on the second syllable. The reason consists in the fact that the suffix *-ness* belongs among class II suffixes that have no influence upon stress of words. Obviously, the phonological and morphological phenomena are closely related in these processes, and it is difficult to say whether they should be treated by morphology or phonology.

2. As mentioned above, some authors distinguish derivational morphology, by which new words are formed, from inflectional morphology. Derivational operations (or word-formative processes) typically create a word of a **syntactic class** different from that of the base. For instance, the affixes *-er/-or* and *-ation* both turn verbs into nouns that, naturally, have different syntactic properties. Inflectional operations leave untouched the syntactic category of the base, but they too add extra elements. These are elements of function. For instance, an inflectional operation may turn an intransitive verb into a transitive one, or an active verb form into a passive one. The two most widespread and important types of grammatical (syntactical) function served by inflection are **agreement** and **government.** Once again, it is practically impossible to set a clear-cut borderline between morphology and syntax in respect to these phenomena.

In spite of the above considerations, we prefer in this textbook the traditional division of language levels because we believe such an approach to correspond with the objectives of the textbook. Nevertheless, one should always keep in mind the close interrelatedness of linguistic facts. And once again, it is necessary to emphasize a very important requirement. Linguists (and

the undergraduates as well) must always attempt to examine linguistic phenomena and questions in their mutual relation, never in their isolation.

2 UNITS

It follows from what has been said that there are two crucial terms in morphology: **morpheme** and **inflexion**.

Inflexion is defined in classical grammatical theory as a change made in the form of a word to express its relation to other words in the sentence. Inflexion includes the **declension** of nouns, adjectives, and pronouns, and the **conjugation** of verbs, according to selected models or patterns of formation, i.e. **paradigms**. The paradigm is then defined as a set of all the inflected forms which an individual word assumes.

There is no generally accepted definition of the morpheme. **Gleason** (1961) defines it as the unit which cannot be divided without destroying or radically altering the meaning. For **Bloomfield** (1973), it is a linguistic form which bears no partial phonetic-semantic resemblance to any other form. **Quirk** et al. (1972) maintain that it is the minimum unit of form and meaning which may be a whole word, an inflection such as *-s,* or a word-formation affix such as *un-, ful-*. Finally, let us introduce **Mathesius'** (1975) definition: The morpheme is the smallest part of the word that has its own meaning.

What is a most important feature of morphemes in our view, is their sign nature. Morphemes are the smallest linguistic signs, the smallest bilateral units, which means that they are the smallest linguistic units that have both form and meaning - as opposed to phonemes. The meaning of the morpheme is called **sememe**. Each sememe is a constant and definite unit of meaning, different from all other meanings, including all other sememes, in the language. The form of the morpheme is called **formeme.** Another important feature of morphemes that has not been included in the above definitions is their **abstract** nature. Namely, the term morpheme represents an abstract unit, just like the phoneme. It is the unit of "langue", of the language system. Its concrete realizations are called **morphs.** Thus, the regular plural ending of English nouns (which we will regard as a morpheme) is found in three different pronunciations, [s], [z], and [əz]. Since these three elements all represent a single morpheme, they are called morphs (or allomorphs) of the morpheme "plural of nouns". We say that the plural morpheme exhibits **allomorphy.** We speak about allomorphs of a morpheme if

(1) they have the same meaning /-s, -z, -əz/ as allomorphs of the plural morpheme,
(2) they are in the relationship of complementary distribution, i.e. they occur in mutually excluding contexts,
(3) they are used in parallel constructions,

(4) they feature a certain degree of phonetic invariance admitting only regular changes.

A rich source of examples of allomorphy is provided by the suffix *-ion* in English which forms a noun from certain verbs ("abstract nominalization"). It has several allomorphs, the commonest being *-ation* (as in *citation*). However, after any word which ends in *-ceive* (e.g. *re-ceive, de-ceive, con-ceive)* we find the allomorph *-ion: reception, deception, conception.*

Most variant morpheme shapes are strictly dependent on their environment within the word. Thus, the regular formatives of English noun plurals (see above) are distributed according to the final vowel or consonant of the word base or singular form: words ending in a voiced consonant, other than [z], [ʒ] or [dʒ], or in a vowel (which are all voiced in English), have [z] (*dogs, cows, hens*); those ending in a voiceless consonant, other than [s], [ʃ], or [tʃ], have [s] (*cats, racks*); those ending in [s], [z], [ʃ], [ʒ], [tʃ] and [dʒ] have [əz] (*horses, prizes, churches, judges*). We say that these allomorphs are, in the sense that the selection of any one is determined by the phonological form of the morph with which it is combined. Or, in other words, the selection of the particular allomorph is dependent on the preceding sound. The same applies to the present tense 3rd person singular morpheme of verbs, which can be referred to as {s}, or past tense morpheme {ed}. A different case is represented, e.g. by *-en* in *oxen.* As opposed to the above-mentioned allomorphs, it cannot be considered an allomorph of {s}, because it does not occur in any other words in the same function, its occurrence in [oksən] is not phonologically conditioned. *Children and brethren* are not segmentable as *oxen* into the form identical with the singular form plus *-en;* there is no word *brethr* or *childr.* That is why, the formation of oxen should be considered an irregular fact of English (see the above conditions for allomorphy). Hence, in this case, we speak about the so-called **suppletive form.** Suppletion is based on using more than one root in the same paradigm (as *in good - better - best,* or *go - went*). These forms, though grammatically and semantically related, are entirely different phonetic forms that are morphologically related by suppletion.

Another case is mentioned by **Bolinger** (1975): If one pronounces *schedule* as [ʃedjuːl] and another as [skɛdʒəl], we can say that both forms are allomorphs of the same morpheme. But it is better to use some other, more convenient term, such as **diamorph**, for this kind of difference. Allomorphs should be, in Bolinger's view, just those differences which a single speaker might make, given the right conditions.

If we define the morpheme as the smallest bilateral unit, the definition cannot be applied to all units considered to be morphemes. There are for example words like *cranberry, Monday, pocket, harness.* Some authors (Smirnitskij, Zjatkovskaja) consider words of this type to be

internally segmentable (i.e. *cran* + *berry, pock* + *et,* etc.) in spite of the fact that neither *cran* nor *pock* has a lexical-semantic meaning. It must be admitted that there is an analogy with such words as *raspberry, blackberry, strawberry*..., or *hogget, locket,* respectively, where both analysable segments are morphemes. On the other hand, there are authors (Bauer (1983), Bolinger (1975), Stepanova (1973)) who are not willing to assign the status of morphemes to these elements. They point out that these "residual elements" do not have any lexical-semantic meaning, they do not function as a stem or an affix and they do not occur in other formations, i.e. they are unique elements. In considering the problem, it should be noted that from the morphological point of view, the analysability of the above formations is indisputable. Based on analogy, it is possible to segment out *-berry, -day, -et,* etc. What remains, however, cannot be termed “morpheme” because it does not comply with the definition of the morpheme as a bilateral unit of language. Hence, it will be better to call these formatives residual elements, i.e. elements having their form and **meaning-distinctive** function similar to that of phonemes.

Another instance of elements “without meaning” is provided by a few compounds such as *Czechoslovakia, craftsman,* etc. Neither *-o-,* nor *-s-* meet the definition of morpheme - they merely connect two morphemes in a new naming unit.

3 CATEGORIES

The term **grammatical category** is frequently employed to refer to any group of elements recognized in the description of particular languages. Some authors refer to the parts of speech as categories; others, following the more traditional usage, restrict the application of the term to such features associated with the parts of speech as *person, tense, mood, number, case,* etc. As explained by **J. Lyons** (1968) the term *category* dates back to the Aristotelian philosophical system and derives from a Greek word which is otherwise translated as *predication* (in the logical, or philosophical sense of "attributing properties to things"). In Aristotelian philosophy, the categories were the different ways, or modes, in which predications could be made of things. It was assumed that the different modes of predication represented differences in the objective world, the different modes of "being". It was supposed that the physical world consists of things (substances) which have certain properties (accidents), initiate or undergo certain processes, stand in a certain relationship to one another, or have a certain extension in space or time. A fundamental distinction was drawn between the category of **substance**, on the one hand, and the **accidental** categories, on the other: the substance was the individual thing in abstraction from its **accidental properties**. Secondly, it was assumed that the structure of language reflected the structure of the world; that words signified things according to their mode of **being**, as **substances** or **accidents**. Words were also described in terms of Aristotelian categories. The substance of the word had to be distinguished from its accidents - the different forms it assumed according to its syntactic function and its particular mode of signifying. Certain accidental categories were typical for particular "parts of speech": nouns were inflected for case (nominative, accusative, etc.) and number (singular, plural), and belonged to a particular gender (masculine, feminine, neuter); verbs were inflected for tense (present, past, future), person, number, etc. What are traditionally referred to as the "grammatical categories" are therefore the accidental categories of grammatical theory. In Aristotelian approach, it was assumed that grammatical categories were universal features of human language: that every language necessarily manifested such categories as tense, number, case, etc.; and that these categories were typical of particular parts of speech. The parts of speech themselves were also defined by reference to the Aristotelian categories. Nouns were defined, according to their **mode of signifying**, as words which referred to **substances** (hence the term "substantive"); adjectives as words which denoted **qualities** and so on. There were distinguished **major** and **minor parts of speech**. Only the major parts of speech (nouns, verbs, adjectives, adverbs) were meaningful in the proper sense of the term: they "signified" the objects of thought which constituted the

"matter" of discourse. The other parts of speech (prepositions, conjunctions, etc.) did not "signify" anything of themselves, but merely contributed to the total meaning of sentences by imposing upon them a certain "form", or organization. Hence, Aristotle distinguished between **words proper** and **conjunctions.**

In the context of American (Bloomfieldian) structuralism, categories are exclusively formally definable units. **Bloomfield** (1973) maintains that large form-classes which completely subdivide either the whole lexicon or some important form-class into form-classes of approximately equal size, are called categories. Thus, the English parts of speech are categories. In Bloomfield's approach, however, the term "category" does not include the parts of speech only, but also those concepts that, within the system of a natural language, are manifested in oppositions: genus (*he - she*), case (*he - him*), number (*a book - books*), tense (*write - wrote*), aspect (*wrote - was writing*), voice (*wrote -written*), etc.

In the transformational and generative grammar, the categories are elements of the deep structure (for the explanation of the term, see Chapter 8) and denote constituent classes as S, NP, VP, V, N, Adj, PP, Prep, Conj, as opposed to syntactic functions representing grammatical relationships between the constituent classes. Chomsky distinguishes lexical categories: N, V, Adj, etc., and major categories: NP, VP, PP, S, etc.

John Lyons (1968) denotes parts of speech as **primary** grammatical categories, and such notions as tense, mood, case, etc., as secondary grammatical categories. The traditional syntactic notions of subject, predicate, object, etc., are then referred to by him as **functional** categories.

3.1 Primary grammatical categories

Word class analysis has long been familiar in Europe under the title parts of speech, and since medieval times, grammarians have operated with nine word classes or parts of speech: noun, verb, pronoun, adjective, adverb, preposition, conjunction, article, and interjection.

Here we are faced with the problem of the essence of these parts of speech. There is no agreement on this point among linguists. Some scholars maintain that these word categories correspond to **ontological** categories, i.e. to the categories of the so-called extra-linguistic reality. According to this theory, nouns are the names of objects, adjectives denote permanent qualities, and verbs in turn denote such aspects of objects that are dynamic, changing. There is, however, a group of authors who base their classification on **syntactic** categories. Then, nouns are defined as words that can function as subjects and objects, adjectives are words that can operate as attributes, and verbs are defined as words expressing the predicate. It seems that the

truth must be sought for somewhere in a combination of these approaches. It can hardly be denied that the main function of nouns is to denote objects and that of adjectives to express permanent qualities. However, there are many abstract nouns, such as *beauty, speed, love,* etc., that denote qualities which, however, do not change anything on their grammatical characteristics of nouns (they still can function as subjects or objects in sentences, and feature morphological categories of nouns).

Nevertheless, the problem of the delimitation of word-classes in English is not simple. Namely, the borderlines between the individual categories are sometimes rather vague. However, uncertainties concerning the classification of different parts of speech have their functional reasons as well, which can be seen when we review different classifications of parts of speech.

Plato and **Aristotle**, for instance, considered adjectives as a subclass of verbs. On the other hand, the **Alexandrians** considered adjectives as a subclass of nouns. Nouns, verbs, and adjectives were not established as independent parts of speech until the medieval period. The reasons for the former view were the fact that the most typical syntactical function of both verbs and adjectives is that of predication, while nouns function first of all as the subject of predication. The latter view is based on "morphological" arguments, i.e. that the nouns and the adjectives in Greek and Latin are both inflected for number and case. The ambiguous position of the main parts of speech is supported by a phenomenon denoted by **V. Mathesius** (1975) as **categorial transition.** Mathesius points out that in English, there is a kind of categorial transition by which the noun acquires a higher degree of actional character. He illustrates it with such examples as a *speech by the Chancellor, an experiment by Prof Tesle,* etc., where the prepositional phrases are used not only to denote authors, or agents in general, but the noun in these phrases expresses action, thus approaching verbal expression of the action (a speech *made* by..., an experiment *made* by...).

Another point refers to adjectives and verbs. The classical distinction between adjectives and verbs is based on the assumption that adjectives express permanent, unchanging qualities, while verbs bear on actions. However, it does not apply to English in every single case. An English adjective can also refer to a quality which is not permanent but may apply only to the given instance or even to the given moment. J. Vachek (1992) gives the following example: In a sentence like *The public has been rather slow to recognize the implications of the new law,* the adjective *slow* does not concern the subject absolutely but only in reference to the process of recognition of the implications. The adjective *slow* in this sentence cannot be translated into Slovak as *pomalý* because the latter refers to an absolute, permanent quality. The

most probable equivalent of the English sentence would be ***Verejnosť si dosť pomaly uvedomovala dôsledky nového zákona.*** This translation is possible because the adverb is regularly neutral with regard to absolute vs. relative qualities, and because it is not bound directly to the substantive. Other examples of such an application of adjectives *are: He is sure to tell you, He is likely to tell you* (the certainty or likelihood concerns his telling something, not him personally), or *They are short of money now,* etc. The above illustrations are another evidence concerning close relationship between English adjectives and verbs. They reflect the shift from a permanent to only a passing quality, which means that the English adjective is functionally very close to the English verb, which, too, expresses the non-permanent, passing quality of the subject of which it predicates. In addition, this closeness of the English adjective to the predicative finite verb is also confirmed by the well-known fact that the English adjective often governs an object or an adverbial. This fact can be instantiated by another Vachek's example: *Labour in this country should be more productive of goods* (In Slovak translation, "productive of" would be translated by a verb). Similarly, *This fact is highly suggestive of future development; They were most appreciative of his earnest effort,* etc.

The above considerations refer to functional and semantic properties of the individual main word classes. However, the factor which is probably more influential in contemporary linguistic doubts as to the existence of the classical borders between the individual parts of speech in English is based on formal criteria. It is related to the phenomenon called **conversion,** which is assessed differently among linguists. With a high degree of simplification, conversion can be characterized as the process of coining new naming units resulting in words of a different word-class, though having the same phonological shape of the fundamental grammatical forms (nominative, infinitive, positive): work$_N$: work$_V$, find$_V$: find$_N$, set up$_V$, : set up$_N$, general purpose$_{phrase}$: general purpose$_A$, etc.

This feature of English inspired some prominent linguists to conclude that the parts of speech in English merge. **Hockett** (1958b) refuses the conventional classification of parts of speech and introduces - apart from the basic word-classes, also such word categories as AV, NA, VN, or NAV, depending on whether a particular lexeme functions as an adjective and a verb; a substantive and an adjective; a substantive and a verb; or as all three conventional word-classes (black, faint, fancy, etc.).

The fallacy of this approach consists in the fact that we cannot consider, for instance, work$_N$: work$_V$, to be a single word that sometimes functions as a noun and sometimes as a verb. It would contradict the definition of the word as a system of forms, with its specific paradigm and syntactical compatibility.

O. Jespersen, in his work *Analytic Syntax* (1937), developed a theory of parts of speech which can be summarized as follows:

1. nouns are the categories of the first degree
2. verbs (including adjectives) are the categories of the second degree
3. adverbs are the categories of the third degree.

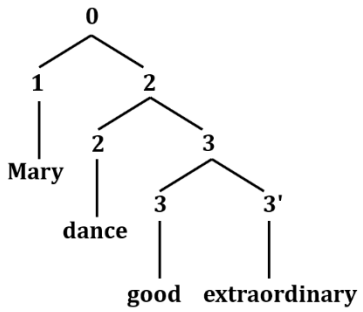
Each category is modified by a category of a "higher" degree. Nouns are modified by verbs (including adjectives), which are therefore **adnominal** categories; verbs are modified by adverbs, which are therefore **ad-adnominal** categories; and adverbs are modified by other adverbs.

The representatives of the so-called **categorial grammar, Lesniewski, Ajdukiewicz** (1935), conceive of the noun as a fundamental category; all other parts of speech are derived, complex categories. Categories of the second degree combine with categories of the first degree to form sentences. Categories of the third degree combine with one another to form categories of the third degree. Then the sentence *Mary dances extraordinarily well* can be represented as follows:

0/1+2/2+3/3+3'///

where
0 stands for "sentence"
1 stands for noun
2 stands for verb (including adjective)
3 stands for adverb
' (prime) is used to indicate recursion.

Graphically:



Mary dances extraordinarily well

A categorial representation of underlying constituent structure

Word classes may be **open** or **closed**. An open class is one whose membership is in principle unlimited, varying from time to time between one speaker and another. These are especially nouns and verbs, but also adjectives and adverbs. Closed classes contain a fixed and usually small number of member words which tend to be the same for all the speakers of the language: pronouns, prepositions and conjunctions.

Despite the above-mentioned ambiguities, tendencies and attempts to find a new type of classification of primary categories in English, we do believe that the existing differences, which are of a semantic, syntactic as well as morphological nature, represent a sufficient basis for the preservation of the conventional classification. In the next part of the Chapter, we will

briefly characterize two main word-classes in English from the point of view of the secondary grammatical categories.

3.1.1 Nouns

The term ***nouns*** can be syntactically defined as meaning a lexeme which typically functions as the head of a nominal phrase. Morphologically, nouns are supposed to show characteristics of number, case and gender, but the last two almost disappeared in the Old English period. Semantically, nouns are lexemes denoting persons and objects, but also abstract qualities and processes.

3.1.1.1 Case

The Latin word *casus* means "falling" or "deviation", indicating that variation in forms of a lexeme according to the syntax of the language was regarded as deviation from its normal "upright" position. **J. Lyons** (1968) specifies the most common functions of the individual cases as follows: the **nominative** marks the subject of the sentence, the **vocative** is the case of address, the **accusative** is used to mark the object of a transitive verb, the genitive is the case of possession, the **dative** marks the indirect object, and the **ablative** has a variety of functions, including that of marking the instrument with which something is done (I killed him *with a sword*). Particular cases have their specific grammatical functions:

1. Subjective function (nominative case): **Bill** *died*
2. Objective function (accusative case): *John killed* **Bill**
3. Indirect objective f. (dative c.): *John gave the book* **to John**
4. Adnominal possessive (genitive): *It is* **Harry's** *pencil*
5. Instrumental: *John killed Bill* **with a knife**
6. Agentive: *Bill was killed* **by John** *with a knife*
7. Comitative: *John went to town* **with Mary**

The reason why no labels are attached to the functions 5 - 7 is that they are realized differently in different languages. It should be noted that in English, the above grammatical functions are expressed by word order or prepositions. With the exception of the genitive, there are no case inflections in the English noun, though in OE there was quite a complex case system of nouns, pronouns and adjectives. Obviously, the position of the genitive in English is rather specific and deserves more attention.

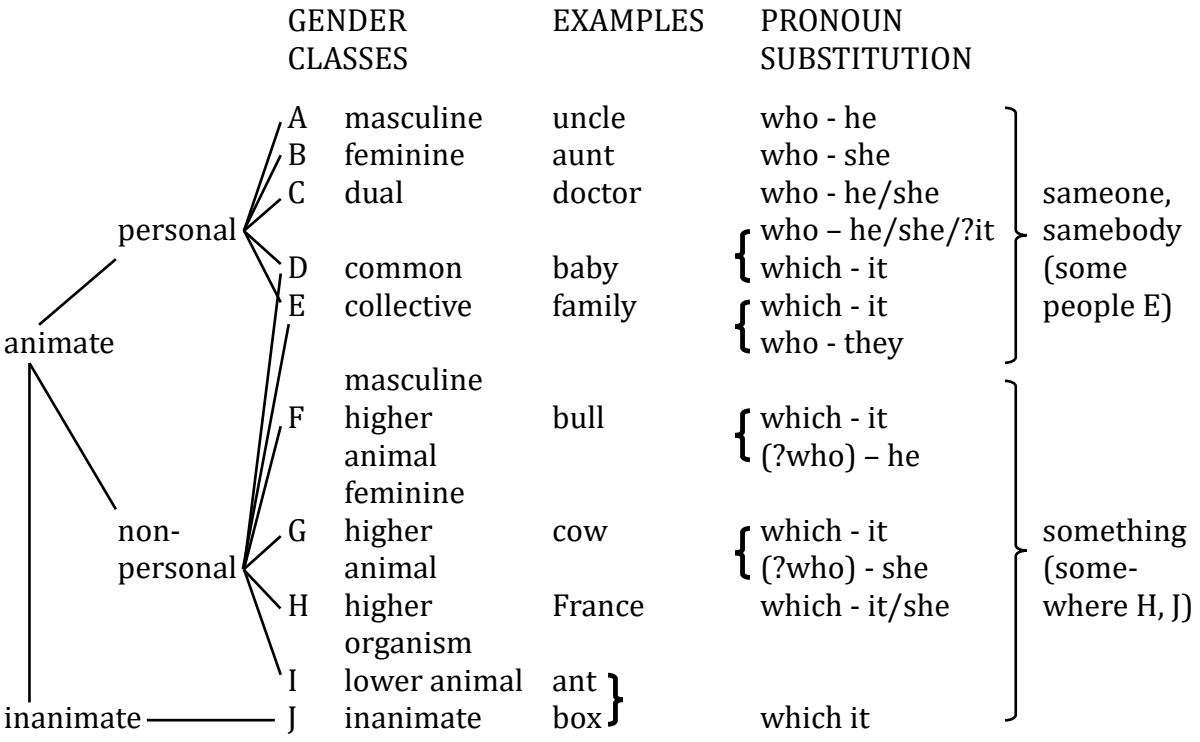
3.1.1.2 Possessive Form

The so-called Possessive Case is the sole remnant of the OE synthetic inflexion of nouns that has been preserved in ModE. The "ending" of this case *'s* is a direct descendant of the OE genitival ending *-es*, found in masculine and neuter a-stems. Its unique position follows from the fact that the ModE substantival paradigm is built exclusively upon analytical lines. In one important feature, the Possessive Case agrees with analytical cases of ModE, i.e. it has a more or less fixed place of occurrence in the sentence: it regularly functions as an attribute and usually stands before the governing noun. Nevertheless, the original ending *-es* as preserved in ModE is not considered to function as an inflexional ending, being revaluated into a kind of suffix, which, at the same time, is projected on different evaluation of word-forms in which this element occurs, i.e. they are considered to be adjectives. The pros and cons of a new approach to this element are outlined in J. Vachek's study *Some less familiar aspects of the analytical trend of English* (In 1976).

Matthews (1974) considers *'s* to be an independent but enclitic element, which forms a "word" (phonologically) with whatever full word happens to precede. It should be added that **clitic** is a form which is word-like but which is structurally dependent upon a neighbouring word, may attach to the neighbouring word, and which typically is not capable of bearing stress, e.g. **n't** (vs. not) as in *You* **SHOULDN'T** *really do that* (vs. *You should really* **NOT** *do that*). In other words, clitics are unaccented words which must lean for support on a neighbouring full word in their construction. **Enclitic** is then a clitic which attaches to, or depends on, a preceding word - as opposed to **proclitics**, i.e. words that lean forward onto a full word which follows.

3.1.1.3 Gender

Gender plays a relatively minor role in the grammar of English by comparison with its role in many other languages. English has no grammatical gender (in contrast to OE where the noun paradigms were divided according to the grammatical gender) and hence there is no gender concord. It has the so-called **referential gender.** The reference of the pronouns *he, she, it* is largely determined by what is sometimes referred to as **natural** gender. It is further typical of English that special suffixes are not generally used to mark gender distinctions. Exception is represented by the suffixes *-ess* (*waitress, presidentess, hostess, leopardess*, etc.) and *-ette* (*usherette, majorette*). The contemporary situation is best seen from the following diagram (Quirk-Greenbaum 1973):



3.1.1.4 Number

Number refers to a system of special forms which indicate whether one or more than one is spoken about. From this follows that the most common manifestation of the category of number is the distinction between the **singular** and the **plural.** OE distinguished the **dual number** in the 1st and 2nd persons plural of pronouns, as a remnant of a systematic position of the dual in the Proto-Germanic period. Thus, apart from **ic** (I) and **wē** (we), there was also **wit** (we two), and in addition to **þū** (you sg.) and **ʒē** (you pl.) there was also **ʒit** (you two), with the corresponding case forms. The distinction between the singular and the plural is normally shown in English by the absence or presence of the plural morpheme, respectively: *book : books, child : children.* By far the largest number of nouns in English form their plural regularly, i.e. by adding *-s* to the singular form. A number of nouns adopted from other languages and naturalized have brought their foreign plurals with them, as with *criterion : criteria, crisis : crises*; and there are some foreign forms which can have two plurals, as with *medium : media/ mediums, formula : formulae/formulas.* Some nouns show no morphological representation of plural forms such as *sheep : sheep, fish : fish, cod : cod, species : species, means : means*; still another group of nouns form their plural by the change of stem vowel (so-called mutation, or palatal-umlaut): *goose - geese, louse - lice, man : men, tooth : teeth*.

The category of number is closely related to the division of nouns into countables and **uncountables**. Many abstract and material nouns never take the plural ending, e.g. *advice,*

business, information, luggage, furniture, news, knowledge, etc. On the other hand, many words are used in the plural only, e.g. *brains, clothes, assets, earnings, sweepings,* etc. Though the category of number seems to be simple, it is important to realize that this category, at least with respect to the inanimate world, is to a considerable degree determined by the lexical structure of particular languages. For example, the English word *salmon* is uncountable in the sense that it has not a plural form, whereas the corresponding Slovak word *losos* is countable (pl. *lososy*). Examples are numerous (*advice, information, evidence, knowledge,* etc.). Hence, it is necessary to be aware of the fact that the lexical categorization of the world in terms of "countable", "collective", and "mass" nouns varies considerably from language to language. In addition to this "primary categorization" of nouns, a "secondary categorization" is possible, e.g. many English mass nouns may be recategorized as "countable" in certain contexts: *I always drink three coffees a day*, though *coffee* is primarily categorized as uncountable.

3.1.2 Verbs

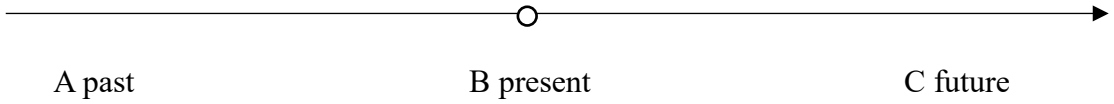
Syntactically, verbs are words that function as the head of verbal groups. Their sentence function is the predicative one. Verbs are characterized by the categories of tense, person, number, mood, voice, aspect. Semantically, verbs usually express the changeable, dynamic aspects of things.

3.1.2.1 Tense

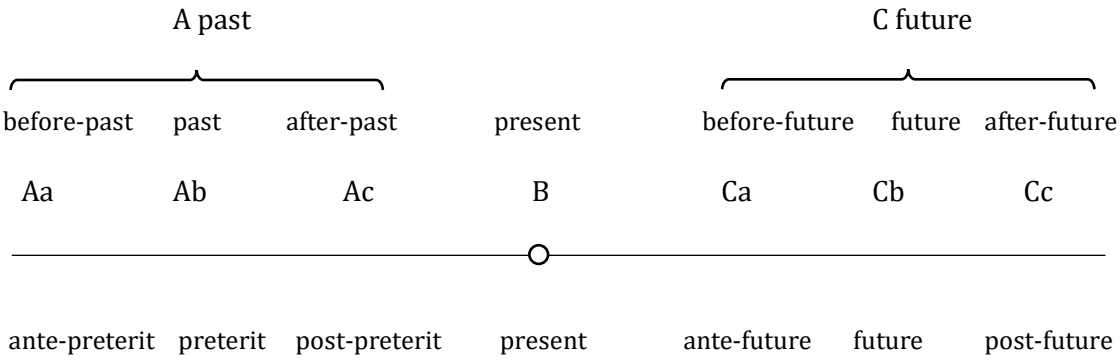
The category of tense in verb forms is familiar in European languages. The essential characteristic of the category of tense is that it relates the time of the action, event, or state of affairs referred to in the sentence to the time of utterance. The semantic ranges covered by the different forms are mainly on two axes - time relations and what are usually called aspectual difference of completion, incompletion, continuation and momentariness.

The concept of tense is a difficult and complicated one to deal with, because purely linguistic notions are apt to become confused with philosophic and pseudophilosophic ideas about time in the non-linguistic sense. It must be clearly understood that non-linguistic **time** and linguistic **tense** are only very vaguely and loosely interrelated. A sentence like *The radii of a circle are all equal* has its verb form *are* linguistically in the present-tense, although when the sentence is uttered the speaker or writer does not mean to suggest that the radii of a circle are all equal only at the time of utterance, but that they have always been equal in the past, are so in the present, and will be so in the future. Or a sentence like *When he comes tomorrow we can ask him* is also in the present-tense, although clearly it refers to an action in the future.

O. Jespersen (1963) in his *The Philosophy of Grammar* establishes the basic division of time as follows:



Then he inserts intermediate 'times' as it follows from the diagram: notional terms are above and the corresponding grammatical terms below:



This system is partly or wholly realized in various languages.

The major tense-distinction in English is - as maintained by **J. Lyons** (1968) - the opposition of "past" and "non-past" (not "past" vs. "present"): the reason is that whereas the past tense refers to "before-now", the non-past is not restricted to what is contemporaneous with the time of utterance: it is used also for "timeless" or "eternal" statements as *The sun rises in the east*, and in many statements that refer to the future ("after now").

A. Spencer (1991) in his Morphology also distinguishes in English the "past tense" and the "non-past tense".

The tense system of ModE is made up of verb-forms which have the property of **finitude,** i.e. the property of being either **finite** or **non-finite.** Finite verb-forms are those which can be used with one or more of personal pronouns in subject positions. Finite verb-forms will therefore show characteristics of person, number and tense. A non-finite verb-form is, negatively defined, one that does not have the characteristics of a finite verb-form. Morphologically, there are three kinds of non-finite verb-forms:

1. **Infinitive** - it is preceded by the morpheme *to*, as in *to walk, to speak, to jump*; or it can occur without the morpheme to, e.g. after *can, may, must,* etc.

2. **-ing-participle** (present participle) - it consists of the verb-stem and the suffix *-ing*, e.g. *walking, speaking, jumping*.

3. **-ed-participle** (past participle) - it consists of the verb-stem and the suffix *-ed*, e.g. *jumped, listened, watched*.

In addition to regular forms of the past participle such as *walked, called, experimented*, etc., we can have past participles like *spoken, driven, done, swum*, etc.

In ModE we have three main tenses, sometimes called **simple: past, present** and **future.** They can be represented respectively by *I walked, I walk, I shall walk, I spoke, I speak, I shall/will speak*. There are three variants of these main tenses, called **Perfective, Continuous** (progressive) and **Perfect-Continuous.**

The Perfective forms are those which show completeness of the action referred to by the head of the verbal segment, and they are made by using finite parts of the verb *to have* as operators preceding the -ed-participle of the "referential" verb, or head, as in *I had walked, I have walked, I shall have walked*.

The Continuous forms are those which show incompleteness of action referred to by the head of the verbal segment and they are made by using the finite parts of the verb *to be* as operators preceding the -ing-participle of the "referential" verb, or head, as in *I was walking, I am walking, I shall be walking*.

The Perfect-Continuous tenses denote an action or a state beginning at some time in the past and continuing up to the moment of speaking. They are made by using the finite parts of *to have*, preceding the -ed-participle, *been* of to be, preceding the -ing-participle of the "referential" verb or head, as in *I had been walking, I have been walking, I shall have been walking*.

The same tenses that appear in the active voice can appear in the passive: *I was asked, I am asked, I shall be asked; I was being asked, I am being asked, I shall be being asked.* The perfect-continuous passive tenses occur very rarely.

3.1.2.2 Person

The category of person is clearly definable with reference to the notion of **participant-roles:** The **first** person is used by the speaker, the **second** person refers to the hearer, and the **third** person refers to persons or things other than speaker or hearer. Hence, pronouns of the first and second persons typically refer to human beings. Pronouns of the third person may refer to human beings, to animals, and to things in the widest sense. It should be noted that *we* (first person plural) does not normally stand in the same relationship to *I* (first person singular) as *boys, cows,* etc. do to *boy, cow,* etc. It follows that *we* is not the plural of *I*. According to whether

the first person plural pronoun includes a reference to the hearer or not, it is customary to distinguish between an **inclusive** and an **exclusive** use of the pronoun.

Standard English has only one form of the second person pronoun -*you*- irrespective of number, and one concord form of verbs associated with it (*you **are** a fool, you **are** all fools*). Some dialects of English in the north of England and elsewhere have separate forms for singular and plural second person pronouns, with different forms of verbs in concord with them. These pronominal forms are etymologically connected with the forms *thou* and *thee*. These are, however, only used in situations of familiarity and intimacy; in other circumstances, only one form is used, as in Standard English.

The final remark is related to the fact that normally, it is only the third person singular that has any morphological significance in ModE since the morpheme -s is the only surviving morphological mark within the system of conjugation.

3.1.2.3 Mood

Mood is frequently realized in different languages by inflecting the verb or by modifying it by means of auxiliaries. Apart from the most frequent type - the so-called **indicative** (or **declarative**) mood used to state facts of which the speaker is relatively confident - we can distinguish the **imperative mood,** used to issue commands and instructions (*Come here! Put your coat on!*), the **subjunctive mood,** used in questions or statements of which the speaker is not so sure (for example, in subordinate clauses to verbs like *doubt* or *fear*), the co**nditional mood,** for hypothetical propositions, and the **optative mood,** which indicates a wish.

Since commands and instructions are generally issued directly to the hearer, imperative sentences are mostly associated with the "second person". It is interesting that the distinction between giving commands and making statements cannot be sharply drawn. The sentence *I want you to come here* is - from the point of view of its grammatical form - a declarative one. However, semantically, it expresses a command - just like the sentence *Come here!*. **Interrogative** sentences also stand in contrast to declarative sentences by virtue of their modality.

Apart from command and interrogation, there are at least three scales of modality. The first is the scale of **wish** and **intention** - the above-mentioned optative - (e.g. the epitaph *May he rest in peace*). The second scale is that of **necessity** and **obligation** (e.g. *I must go to London next week*). The third is that of **certainty** and **possibility** (e.g. *He may be here, He must have done it*, etc.). Once again, some sentences are ambiguous in regard to the mood: An overtly interrogative sentence **Will you come here?** may be semantically equivalent to the imperative

Come here, will you? (or simply *Come here!*), etc. In expressing modality, English frequently has recourse to **auxiliaries.** For instance, the auxiliaries *will* and *shall* are not always used in reference to the future. Among the definitely modal uses of *will* one may note, for instance, the **inductive,** which is used for general timeless truths that may be proved inductively: *Oil will float on water*. *Shall* also has a modal function: the so-called **promissive:** here the speaker puts himself forward as guarantor, as it were, of the truth or occurrence of the event he refers to (e.g. *You shall have your money by the end of the week*).

3.1.2.4 Aspect

The term *aspect* refers to a grammatical category which reflects the way in which the verb action is "regarded" or "experienced" with respect to time. **Quirk et al.** (1985) point out that the aspect is so closely connected in meaning with tense that the distinction in English grammar between tense and aspect is little more than a terminological convenience which helps us to separate in our minds two different kinds of realization: the morphological realization of tense and the syntactic realization of aspect. The above authors distinguish the following aspects: perfective, progressive and perfective progressive.

The **perfective aspect,** in its broadest possible interpretation, indicates **anterior time,** i.e. time preceding whatever time orientation is signalled by tense or by other elements of the sentence or its context (*I have already met your sister; The flight was cancelled after we had paid for the tickets; By next week, they will have completed their contract*).

The **progressive aspect** (also sometimes called **durative** or **continuous** aspect) indicates a happening **in progress** at a given time. The meaning of the progressive can be divided into three components, not all of which need be present in a given instance:

(a) the happening has *duration*

(b) the happening has *limited duration*

(c) the happening is *not necessarily complete*.

The first two components add up to the concept of **temporariness.** In the sentence *Joan is singing well*, the progressive aspect signals that Joan's singing is a temporary rather than a permanent phenomenon. In the sentence *Joan was singing well*, the progressive aspect specifies the event as enduring over a (limited) period. The component (c) is distinctive chiefly in the case of certain types of dynamic verb meaning called **conclusive:** *I was reading a novel yesterday evening* (there is no implication that I finished the novel in the course of the evening).

The **perfective progressive aspect** results from the combination of the perfective and the progressive aspects. It is mainly used in the following cases:

(a) The happening has (limited) duration (*It has been snowing again*)

(b) The happening continues up to the present or recent past (*We have been living in Europe all our lives*)

(c) The happening need not be complete (*I have been writing a novel, but I haven't finished it*)

(d) The happening may have effects which are still apparent (*Have you been crying?* [Your eyes are red]).

4 MORPHOLOGICAL MODELS

As the concept of the morpheme was developing in structuralist theories of language, particularly in America, different approaches came to be applied. As a matter of fact, there were three basic models of morphological description, the names for them come from a significant American linguist, Ch. Hockett (1958a): Item-and-Arrangement (IA), Item-and-Process (IP) and Word-and-Paradigm (WP).

4.1 Item-and-Arrangement

The main characteristics of this model can be explained as follows: If we take an English word such as *farmers*, it is possible to split the form, as a whole, into three independent segments: a segment *farm*, which also appears in *farm-ing* or *farm-s*; a second segments *-er*, which reappears (again to indicate the "doer" or performer of some task or profession) in words such as *sing-er, sweep-er*, and the like; and a third segment *-s* which reappears (again with the meaning of "plurality") in *car-s, log-s*, and so forth. The central observation of IA, in other words, is that certain word forms can show a **partial phonetic-semantic resemblance** to other word forms. Thus, the form *farm-er-s* bears a partial resemblance to *farm-ing* with respect to one segment, and to *sing-er, log-s*, etc., with respect to others.

IA considers morphemes to be the basic units of morphology, these being conceived as abstract grammatical constructs which correspond to the recurring segments: in our example, the units which might be symbolized by FARM, -ER, and "plural". The relation between the units is that of simple sequence: thus, in our example, the morpheme FARM precedes the second morpheme -ER, and this precedes the third morpheme "plural". The morphemes are manifested in speech by **morphs** (a term first used by **Ch. Hockett**). To sum it up, a complete morphological analysis of the language from the point of view of the IA-model would involve:

1. A specification of the inventory of morphemes (the "items")
2. A specification of the sequences in which these morphemes can appear (the possible "arrangements")
3. A specification of the morphs by which each morpheme can be realized.

Generally speaking, the model works upon the **empirical principle,** that is, observation of the arrangement of the items as found in a corpus, experiment with such techniques as substitution and IC analysis, and the drawing of general conclusions about the arrangement of items in the language from such observation and experiment.

4.2 Item-and-Process

By this model, Hockett means a description which includes **morphological processes.** One distinguishes here between basic or underlying forms of a morpheme and forms derived after the application of certain processes. Thus, *bake* and *take* are underlying forms, and two distinct processes are applied to them in the formation of the past tense. In the first, the process of adding the inflectional morpheme *-ed* (or perhaps of the allomorph /t/); in the second, the process is phonological in that the vowel of *take* is replaced by, or changed into, /u/.

This can be represented as follows:

$$\left[\left[\text{Vowel Change}\right]_{\text{tu: Θ}} + \text{Pl}\right]_{\text{N}}$$

where N denotes the category of the word (noun).

In this model, the "items" may be either morphemes (as in IA) or words (as in WP).

The IP approach historically precedes the IA approach (its most extended defence was probably given by E. Sapir as early as 1921).

4.3 Word-and-Paradigm

This model assumes that the basis of the language in question is the word, and the words can be arranged in **paradigms,** like the declensions and conjugations, and the language can be described in these terms. This model was only mentioned by Hockett in passing and was first presented in an articulated form by R. Robins (1959). Each inflected form has (at least) one morphosyntactic description (for example, "past tense form" or "dative singular of the masculine/neuter adjectival form") and the grammar then makes available paradigms that specify the formatives which correspond to these categories. The model makes it possible to account for **syncretism** (syncretism means that a single inflected form may correspond to more than one morphosyntactic description; in English, there is regular syncretism between the past tense and the past participle endings).

5 MORPHONEMICS

Morphophonemics links morphological structure to allomorphic variation. This connects morphological theory with phonological theory. As already mentioned, morphemes may appear in different phonological shapes because of the effects of phonological processes. The different realizations of the English regular plural morphemes provide an example of this.

Another example is as follows:

Each competent speaker of English is in position to distinguish the following two pairs of alternant forms:

1) logic /k/	- logician /ʃ/	2) dissipate /t/	- dissipation /ʃ/
magic /k/	- magician /ʃ/	hesitate /t/	- hesitation /ʃ/
music /k/	- musician /ʃ/	illustrate /t/	- illustration /ʃ/

N. Trubetzkoy (1939) introduced the term **morphoneme** to designate these regular form pairs. The morphoneme is then conceived as an abstract unit, underlying the two forms whose concrete realization depends on particular conditions (distribution). In the above examples, there is assumed a morphoneme “K” that is realized either as [k] or [ʃ]. The morphoneme "T" is realized then as [t] or [ʃ]. The particular selection depends on the phonological environment.

Morphophonemic alternants are thus realizations of a morpheme which, while clearly related to each other, differ in at least one phoneme.

Chapter V

Lexical Level

1 LEXICOLOGY

1.1 General

Lexicology is the study of the **lexicon** or **lexis** (specified as the **vocabulary** or total stock of words, or **lexemes** of a language). It should be noted that when speaking about the stock of words or lexemes, we do not mean a simple list of isolated elements as given, for instance, in a dictionary. Lexicologists try to find out **generalizations** and **regularities** as well as **interrelations** within the system of lexemes. Lexicology is therefore concerned with **structures** existing in the system of lexemes. The structures are of a twofold nature, i.e., those based on **internal relations** within naming units, which are either morphologically complex (such as compounds, suffixations, prefixations) or simple. In the latter case, we may nevertheless find underlying semantic structures. Or there are structures based on **external relations** of naming units (paradigmatic and syntagmatic).

All lexemes are signs, and as such, they have **form** and **meaning.** A comprehensive theory of lexicology must take into account both of these facets of lexemes. Hence, in the following few paragraphs, we shall briefly describe the elementary principles of the theory of sign.

1.2 Linguistic sign

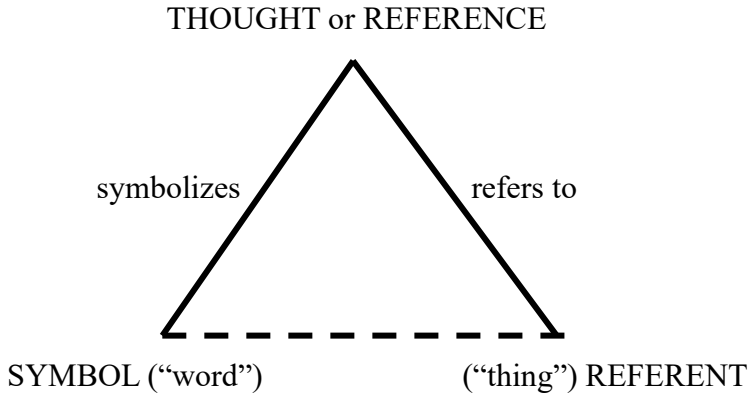
As already mentioned, lexemes are **signs,** which means that they are **bilateral units** having both form and meaning. There are numerous models of linguistic signs, and here we shall mention only some of them.

F. de Saussure (1989), the founder of modern structuralism in Europe, has developed his conception of a linguistic sign within the general theory of **semiology** (i.e., the theory of signs), the component part of which is, in his view, linguistics. He distinguished between a **concept** and an **acoustic image.** These are components of mental nature associated in the brain. The acoustic image is not conceived as a mere physical sound, but rather its trace, or reflection, in our brain. The other component, the concept, is even more abstract. Both components are mutually conditioned. Saussure gives a parallel with a sheet of paper: by shearing one side, we modify the other one as well. Later on, Saussure replaced the original terms with a new couple: **signifiant** for the acoustic image (i.e., the signifying component), and **signifié** for the concept

(i.e., the signified component) of the sign. Saussure developed his theory of signs and described other basic characteristics of linguistic signs:

The linguistic sign is, first of all, **arbitrary** and **conventional. Arbitrariness** means that the relation between the two facets of linguistic signs is not inherent, it is arbitrary, which can be manifested by the existence of different *signifiants* for the same *signifié* in various languages, e.g., *book - kniha - Buch - kniga – livre.* It must be noted that, though this relationship is arbitrary, as soon as the particular linguistic sign is established in the particular speech community, the relationship between the form and the meaning is **obligatory,** i.e. all the members of the speech community must observe it in their communication. The arbitrariness means that these components are mutually linked by way of convention of speech community. Another term introduced by de Saussure is the **linearity** of linguistic signs, which bears on the fact that utterances are realized in time; hence, it is not possible for two linguistic signs to be at the same point of the time axis - their arrangement is linear. This is one of the points in which linguistic signs differ from some other signs, e.g., visual signs.

A different model of a linguistic sign was developed by **C.K. Ogden** and **I.A. Richards** in their book *The Meaning of Meaning* (1923). It is known as the so-called **semiotic triangle:**



There is no direct connection between the word (or symbol) and the extralinguistic thing (object, referent) denoted by it. This is symbolized by the dotted line. Ogden and Richards maintain that the symbol stands for the referent. The relationship between the two is indirect and mediated by the concept (reference, thought).

The above models can be said to spotlight the process of denomination at the language system level and to reflect the cognitive meaning of naming units. Some more recent conceptions, therefore, focus on incorporating into the model of the speaker and the hearer as the participants of the communication act, as well as some wider system relations of linguistic signs. The linguistic sign is not represented in isolation; it enters into relationships with the

referent (extralinguistic object), with other linguistic signs, and with the users of signs. Based on such an approach, it is possible to distinguish the following relationships within a complex semiotic model (Ondruš - Sabol, 1981):

1. The relationship of **designation** between the referent and the concept
2. The relationship of **denotation** between the sign form (designator) and the referent
3. The relationship of **signification** between the sign form and the concept
4. The relationship between language users and the sign form – **pragmatics** (connotations - stylistic, expressive, geographic)
5. The relationship between the sign form and other sign forms:
    a) **paradigmatic relations**
    b) **syntagmatic relations.**

The linguistic sign represented by a lexeme differs qualitatively from other, non-linguistic signs, by a higher level of abstraction and by functioning as a means of human communication that can even refer to other systems of signs. The linguistic sign features almost an infinite valency, i.e. it can enter into different specific relationships, and a predicative character - it can acquire a sentence function.

1.3 Units

Just like morphology in its traditional meaning, lexicology, too, deals with morphemes. However, two types of morphemes should be distinguished. Whereas morphology concentrates upon **grammatical** (or **inflectional**) **morphemes** as they take part in forming word-forms and denote various grammatical categories such as number, tense, etc., and express syntactic relations (concord in gender, number), **lexical morphemes** denote extralinguistic objects, processes, actions, states, qualities, and circumstances. In other words, inflectional morphemes carry the grammatical meaning, and lexical morphemes carry the lexical and semantic meaning. The latter precede (in English) the grammatical morphemes and, if mutually combined, they produce new lexemes (or naming units). The combination of lexical and grammatical morphemes is traditionally called **inflection**, or **morphology.** On the other hand, the combination of lexical morphemes with each other is usually labelled **word-formation,** though word-formation covers a much broader field of naming units (including also conversions, back-formations, and blendings). The two large groups of morphemes can be further subdivided on the basis of the possibility of their independent occurrence into **free morphemes** (that can function independently) and **bound morphemes** (that cannot occur independently). Free morphemes include **root/stem** morphemes (*table, write, green...*); bound morphemes are

affixes (*re-, dis-, un-, -ish, -er, -ment, -ly...*) or grammatical morphemes (plural *-s,* past *-ed,* etc.). The terms free and bound morphemes were introduced into linguistics by **L. Bloomfield** (1973). A further aspect of the division of morphemes pertains to their position. **Prefixes** are added in front and **suffixes** behind free morphemes. If they occur only in one single combination, such as *cran-* in *cranberry*, or *Mon-* in *Monday, ceil-* in ceiling, etc., they are called **residual elements,** or **formatives,** or **pseudomorphemes.**

1.4 Word

The problem of the word, its position within the linguistic description, is one of the most difficult and important problems. Such a fundamental term as "word" causes confusion from time to time, because it can refer to different entities. Moreover, the word cannot be defined universally for all languages because the principles for the delimitation of **wordhood** can differ.

Di Sciullo and **E. Williams** in their monograph *On the Definition of Word* (1987) provide us with four distinct notions of **word.** The first is that of a **morphological object,** constructed out of morphological "atoms", i.e. morphemes, by processes of affixation and compounding. The second sense of the word is that of a **syntactic atom,** i.e., the indivisible building block of syntax. Syntactic words are considered to be "atomic" units of syntax, and thus they are treated as indivisible into morphemes. They represent one whole. The third conception of word is that of "listed object", for which Di Sciullo and Williams coin the term **listeme.** Listemes are linguistic expressions memorized and stored by speakers. The last notion of word is that of a **phonological word.**

Matthews (1974) distinguishes three "kinds" of word:

1. **Phonological** (or **orthographic**) **word**, i.e. word consisting of sounds or letters. Thus, *works, worked; man, men* are four different words in this sense, however, being word-forms of the same abstract unit, they belong to the so-called

2. **Lexeme,** or a **dictionary word**

3. **Grammatical word** - in the sense of a unit fulfilling particular grammatical functions.

Moreover, it is necessary to draw a distinction between **potential words** and **actual words.** An actual word could be defined as any word that is used by the speech community. This definition is rather broad because it includes **nonce-formations,** too. Nonce-formations are new words coined by speakers on the spur of the moment to cover some immediate need, however, they are not **institutionalized** (Bauer, 1983) yet, which means that they do not belong, as it were, to the inventory of a given speech community. On the other hand, potential words reflect the unlimited human capacity to coin new naming units.

In general, there is no unity in using these terms (as is the case with a number of other linguistic terms). Therefore, we suggest using the term **lexeme** for the designation of abstract units on a system level, and the term **word-form** for concrete manifestations of the abstract units in speech. The term **word** will also denote an abstract unit, however, the scope of the term **lexeme** is much broader, as it covers many lexical units consisting of or motivated by several words (compounds, collocations, idioms). Finally, there is also the term **naming unit,** introduced into linguistics by **V. Mathesius** (1975). We shall envisage it as an abstract unit reserved for the field of word-formation. Sometimes it is distinguished between the **lexeme** and the **lexical unit. Cruse** (1986) defines the lexical unit as the union of a lexical form and a single sense, and the lexeme as a family of lexical units, e.g. the lexeme *fox* includes two lexical units: *fox*^{1} (animal) and *fox*^{2} (person); the same holds true of the lexeme *break: break*^{1} (become not whole), *break*^{2} (cause become not whole). It follows from the examples that the distinction refers to polysemantic words: the *lexeme* covers a polysemantic word with all its individual meanings - it is a combination of one *signifiant* with all encompassed *signifiés*, while the *lexical unit* refers to one particular meaning of a polysemantic word - it is a combination of a *significant* with one *signifié* within such a polysemantic word.

The meaning of a lexical unit is then termed a **sememe.** A sememe can be decomposed into **semantic components,** also called **semes.** Hence, the sememe is a complex or hierarchical configuration of semes, which corresponds to a single meaning of a lexeme. The method used in this connection is called **componential analysis.**

1.5 Structural relations among lexemes

As mentioned above, there are basically two kinds of external relations among lexemes - **paradigmatic** and **syntagmatic relations.** The distinction basically derives from the linear nature of utterances, which is projected on relations between elements of the language that are combined, i.e., co-occur. Successive linguistic elements (morphemes in the case of word-formation or words in the case of syntax) are said to be in syntagmatic relations. For example, the lexeme *old* is syntagmatically related to the definite article *the* and the noun *man* in the expression *the old man*. The term **syntagm** was introduced into linguistics by **F. de Saussure** (1989). Elements that are in opposition or contrast in the same position in a syntagma are said to be in a paradigmatic relation. They can be substituted for each other and form a **paradigm.** The different relationships and the resulting two dimensions may be illustrated with the following example adopted from **D. Crystal** (1985):

He —	can —	go —	tomorrow————————	SYNTAGMATIC RELATIONS
She	may	come	soon	|
I will	ask	next	next	| PARADIGMATIC
You	could	sleep	now	|
.	.	.	.	| RELATIONS
.	.	.	.	|
.	.	.	.	|

Lexical semantics deals predominantly with paradigmatic relations among lexemes. Basically, there are five types of paradigmatic relations:

1. Homonymy
2. Polysemy
3. Synonymy
4. Antonymy
5. Hyponymy/hyperonymy

13.1 Homonymy

The *signifiant* of the linguistic sign, i.e., the phonological or graphemic form, is identical, the signifié, the meaning, is different and unrelated. Thus, as opposed to polysemy, homonymy does not occur within a single lexeme; it is a relationship between different lexemes. Depending on the kind of formal identity, we can distinguish:

a) **homophones** - they are identical in the sound form of the lexemes (*sell - cell, son - sun, steal - steel*);

b) **homographs** - they coincide in spelling (lead_{V} [li:d] - lead_{N} [1ed]);

c) **full homonyms** - they have identical sound form and spelling (*lie (lay, lain) - lie (lied, lied)), file (catalogue) - file (tool)).*

1.5.2 Polysemy

The **signifiant** is identical, however, as opposed to homonymy, the **signifiés** are partly identical, semantically related. In other words, the sememes of different meanings of one lexeme must have at least some of the semes in common. Hence, polysemy is the relation among different meanings of one lexeme. Polysemy occurs both with simple words (*bulb* 1) almost round, thick, underground stem of such plants as the lily, onion, tulip; 2) something like a bulb a) in shape, esp. glass container of an electric lamp), and with complex words (*football* 1) inflated leather ball usen in games; 2) the game played with a football).

1.5.3 Synonymy

The *signifiant* is different, but the *signifiés* are almost identical. According to **J. Lyons** (1968) two or more items are synonymous if the sentences which result from the substitution of one for the other have the same meaning.

It is, however, a widely accepted fact that there is no perfect or complete synonymy. It is connected with the fact that cognitively more or less identical words usually differ in their connotations. As put by **S. Ullmann** (1970), "it is almost a truism that total synonymy is an extremely rare occurrence, a luxury that language can ill afford". Namely, total synonymy means 1. interchangeability in all contexts and 2. identity in both cognitive and connotative meanings. It is usually the case that one term of the synonymous pair is more general (*refuse - reject*), more intense (*repudiate - refuse*), more emotive (*reject - decline*), more professional (*decease - death*), more literary (*passing - death*), more colloquial (*turn down - refuse*), more local or dialectical (Scots *flesher - butcher*), it belongs to child-talk (*daddy - father*), etc.

1.5.4 Antonymy

In its wider sense, it is a paradigmatic relation between signs whose content is different but undoubtedly in a way related. The meanings of such signs are opposed in various ways. There can be distinguished three different types of antonymy in a wider sense (oppositeness of meaning) (Lyons 1968, Lipka 1991): complementarity, antonymy in narrow sense, and converseness.

a) **Complementarity** can be illustrated by pairs of words like *male* vs. *female*, or *single* vs. *married*. It is characteristic of complementarity that the denial of one implies the assertion of the other and vice versa. This is the relation of bidirectional negative implication. Thus, e.g., *John is not married* implies *John is single*. There is no third possibility. Complementaries are not gradable.

b) **Antonymy in narrow sense** can be exemplified by such pairs as *good/bad, big/small, high/low*. Here, the negation of one member of the pair does not necessarily imply the assertion of the other, e.g., *John is not good* does not imply *John is bad*, or *The water is not hot* does not necessarily imply *The water is cold*. It follows that in the case of antonymy in narrow sense there is a third possibility. Moreover, as opposed to complementaries, antonyms in narrow sense are gradable.

c) **Converseness.** Examples are *husband/wife, doctor/patient, teacher/pupil, precede/follow, above/below, before/after*, etc. The relation can be illustrated by the following sentences that imply each other and thus have the same meaning: *John bought the car from Bill*

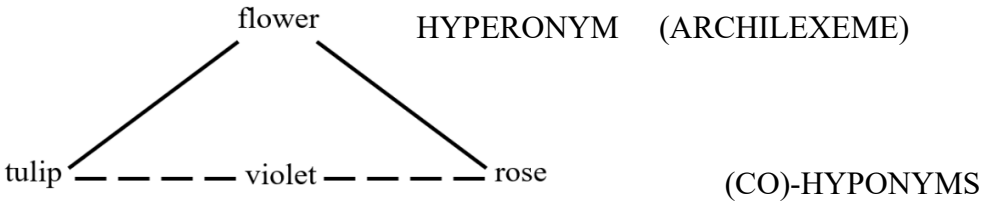
implies *Bill sold the car to John*, and vice versa. Converseness is thus characterized by the fact that pairs of sentences with lexemes like *buy* and *sell*, or *husband* and *wife,* imply each other mutually. Thus, *John is Mary's husband* implies *Mary is John's wife.*

Converseness pairs are neither gradable, nor is the negation of one means the assertion of the other pair member.

In addition to the above three types of oppositeness, there are distinguished, in a more detailed classification, some other types as well, for instance, **directional opposition** that is based on the notion of contrary motion, e.g., *up/down, come/go, arrive/depart*. However, direction can be understood in a more abstract way, and in that case, there can be distinguished **directional opposition of consequence:** *learn/know, get/have;* **antipodal directional opposition:** *north/south, east/west.* Apart from the above **binary oppositions,** there are also **non-binary** contrasts, such as **scales** (*hot, warm, lukewarm, cold, chilly, freezing...*), or **cycles** (*Sunday, Monday, Tuesday...*), or **ranks** (*field marshal, general .... private*).

13.5 Hyponymy/hyperonymy

It is a paradigmatic relation between the contents of linguistic signs that find themselves in a hierarchical relationship. The subordinate lexical item (i.e., the one with a narrower, more specialized meaning) is called a **hyponym**, the superordinate one, covering the meanings of all its hyponyms, is called a **hyperonym** (or **archilexeme**). The subordinate term necessarily implies the superordinate one, but not vice versa. Hyponyms that are on the same level of the hierarchy are labelled **co-hyponyms.** The relations can be illustrated as follows (L. Lipka, 1991):



Such hierarchical relations led to the postulation of lexical fields.

1.6 Lexical fields

The structural relations in the lexicon can also be illustrated by the so-called lexical fields (sometimes also called **lexical configurations - Cruse** (1986), or **semantic fields - A. Lehrer** (1974)). **L. Lipka** (1991) distinguishes between **lexical fields** (consisting of simple and complex lexemes) and **word-fields** (exclusively containing morphologically simple items - monemes). **J. Lyons** (1977) defines the lexical field as a paradigmatically and syntagmatically

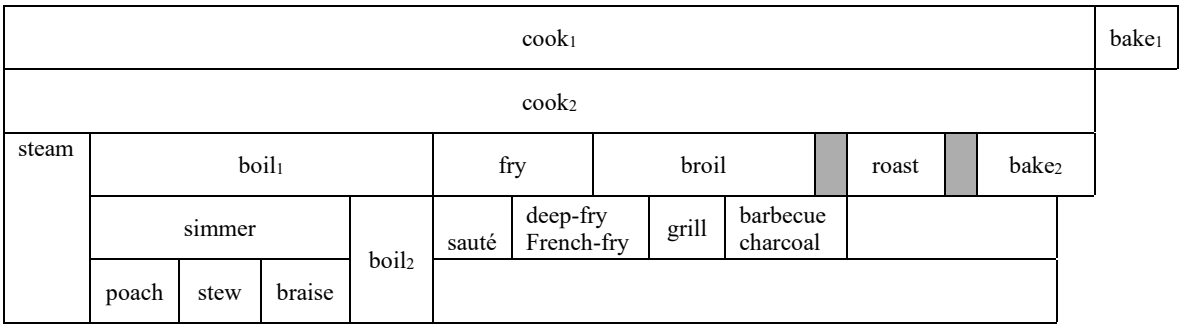
structured subset of the vocabulary (or lexicon). It is a set of lexemes that cover the conceptual area in any one language system, and by means of the relations of sense which hold between them, give structure to it. Lexical fields can be either linear or hierarchical. Examples of **linear fields** are:

red - yellow - green - blue - purple ... COLOURS

gold - copper - iron - mercury - zinc - tin ... METALS

bird - fish - insect - mammal ... ANIMAL, etc.

A **hierarchical lexical field** can be illustrated by an example adopted from **A. Lehrer** (1974):



Three of the words have general and specific senses, i.e., they appear in two places - cook*,* *bake,* and *boil.* Words are synonymous if they appear in the same square.

1.7 Semantic changes

Language is not a static system. It develops depending on the influence of external and internal factors (see Chapter 1). The development is most strikingly reflected in its vocabulary. The same holds true of the meaning, which is probably the least resistant to changes. The semantic changes have several reasons, the most important of them are mentioned by **S. Ullmann** (1970):

1. generational differences in using the lexeme, 2. vagueness in meaning, 3. the loss of word-formative motivation, i.e. demotivation, 4. the existence of polysemy - a word can acquire a new sense, or scores of new senses, without losing its original meaning, 5. the nature of vocabulary which is an open system, and as such open to changes.

The last two points are probably the most important preconditions for semantic changes in the world, which every day brings new things, ideas, concepts, and phenomena that need to be denominated.

Thus, semantic changes refer to the relationship between sememes of polysemous lexemes (or their referents). For instance, the sememes of *fox* 1) wild animal of the dog family, 2) fur of fox, refer to different referents, however, the relationship is obvious.

Generally, semantic changes can take two directions:

It is often the case that in passing from general usage into some special sphere of communication a lexeme as a rule undergoes some sort of **specialization** of its meaning. For instance, the word *case*, alongside its general meaning of "circumstances in which a person or thing is" possesses special meanings: in law, "a law suit", in grammar (e.g. *Possessive Case*), in medicine (*a patient, an illness*). In the above example, the meaning of the word has come to be more specialized; the **extension** (a class of objects covered by a lexeme) has been narrowed, the **intension** (a set of essential properties contained in the meaning of a lexeme) being widened. However, there is also a reverse process, i.e. that of **generalization** or widening of meaning. As an example, the verb *to fly* originally meant "to move through the air with wings", and now denotes any kind of movement in the air or outer space and also a very quick movement in any medium. In this case, the extension is wider, and the intension is reduced. As it follows from the above examples, the extension and the intension are inversely proportional.

1.7.1 Metaphor

The metaphor is a semantic change based on the association of **similarity** between referents. The basic structure of the metaphor is very simple. There is a thing we are talking about and that to which we are comparing it. Nevertheless, metaphors can be based upon very different types of similarity, e.g. similarity of shape: *head of a cabbage*, similarity of form and function: *teeth of a saw, arm of a robot,* similarity of function: *head of department*, similarity of position: *foot of a page, of a mountain*, similarity of form and position: *the neck of a bottle*, similarity in behavior: *bookworm, wirepuller, fox.*

It should be noted that the above-mentioned similarities can be basically of two kinds: **objective** or **emotive.** It is objective when, e.g. the ridge of a mountain is called a *crest* because it resembles the crest of an animal's head. It is emotive when we talk of a *bitter* disappointment because its effect is similar to that of a bitter taste.

Another classification given by S**. Ullmann** (1970) recognizes four major groups:

1. **Anthropomorphic metaphors** based on similarities of parts of the human body and inanimate objects: *the lungs of a town, the mouth of a river, the ribs of a vault, the heart of the matter, the hands of a clock,* etc.

An opposite direction, when parts of the body are named after animals or inanimate objects: *ear drum, apple of the eye, Adam's apple, spine*, etc.

2. **Animal metaphors** based on the denomination of plants and objects after their resemblance of some aspects of animal world: *goat's beard, dog's tail, cat-head, crab, crane, cock of a gun*. Frequently it is people who are likened to animals: *a dog, a cat, a fox, a pig, an ass, a rat,* etc.

3. **From concrete to abstract:** *to throw light on, dazzling, brilliant, beaming,* etc.

4. **Synaesthetic metaphors:** it is a transposition from one sense to another: from sound to sight, from touch to sound, etc.: *warm or cold voice, piercing sounds, loud colours, sweet voice, sweet odours.*

1.7.2 Metonymy

If the transfer is based upon the association of contiguity, it is called metonymy. It is a semantic shift reflecting some kind of inherent relationship of referents. The change may be conditioned by spatial, temporal, causal, symbolic, instrumental and other connections. A metonymical "part-whole" relationship (*pars pro lobo, totum pro parte*) can be illustrated by the lexeme *fox*, where the sememe "wild animal of the dog family" is metonymically related to the sememe "fur of fox" (*She was wearing a fine fox*). Other examples are: *chicken* (young hen - flesh of chicken as food), *oak* (tree - the wood of oak), *cherry* (fruit - tree), *bottle* (container - contents of bottle), *house* (building - people living in a house), *university* (institution - building), *presidency* (office of president - term of presidency), *glass* (material - drinking vessel made of glass), *grow* (increase in size, height, length - cause to grow), *blackshirt* (Fascist denominated after the colour of the shirt), etc.

A special position within metonymical change is occupied by the so-called **functional change** - in this case, the shift is between names of things substituting one another in human practice: ModE *pen* goes back to OE *pen,* originally meaning *feather*. At present, we write with fountain pens or ball-pens that have nothing in common with feathers except for the function. Common names may be obtained from proper nouns: *Diesel - diesel* (engine), *Volt - volt* (unit of voltage). Many times, the place of some political establishment is used for its staff or for its policy as well: the White House, the Pentagon, Downing Street. Examples of geographic names turning into common nouns to name goods are numerous, too: *bikini, cardigan, tweed*.

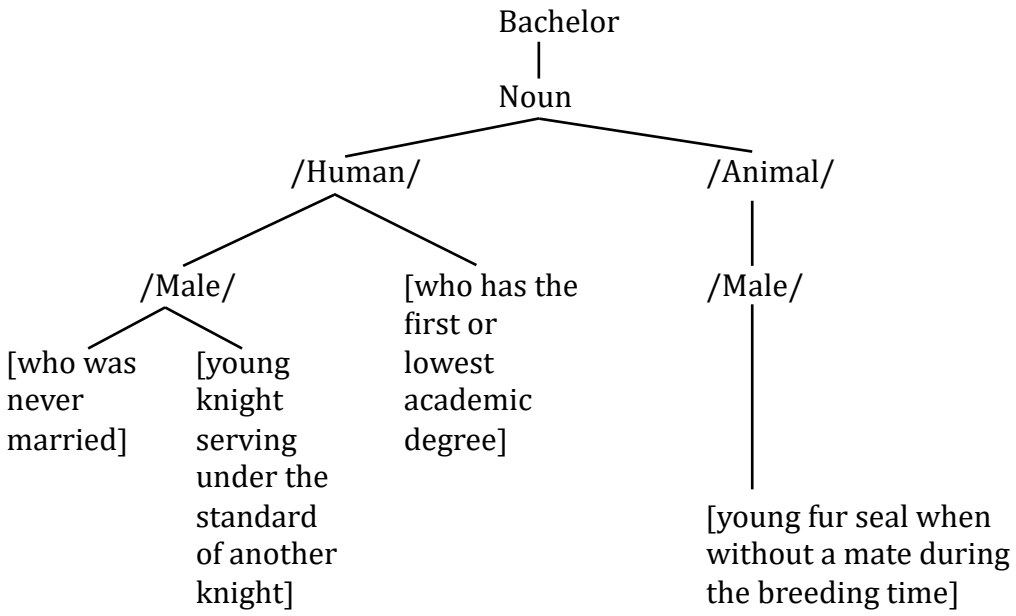
1.8 Componential analysis

It is aimed at the description of an infinite number of words by means of a combination of semantic features (components, semen) of a **universal** nature. The fundamental principles of

the method have been established by the main representative of the **Kopenhagen school, L. Hjelmslev.** He conceived the meaning facet of a sign as a combination of semantic distinctive features. It should be emphasized that semantic components are theoretical constructs, e.g. (+HUMAN), (+ANIMATE), (- CONCRETE), etc., introduced into semantic theory to designate language-invariant but language-linked components of a conceptual system that is part of the cognitive structure of the human mind. Semantic components are symbols for the fundamental language-relevant features of objects of the extra-linguistic reality. They reflect the structuring of reality by means of language. Thus, e.g., a **woman** can be represented as the conjunction of the semantic components HUMAN, FEMALE, and ADULT.

It should be noted that the method of componential analysis has been applied in our country by **E. Ružičková** in her book *Slovesá pohybu v slovenčine a angličtine* (1982).

The leading representatives of the modern semantic theory, **J.J. Katz** and **J.A. Fodor** (1963), distinguish between **semantic markers** (**components**) and **distinguishers.** The semantic markers assigned to a lexical item in a dictionary entry are intended to reflect whatever systematic relations hold between that item and the rest of the vocabulary of the language. On the other hand, the distinguishers assigned to a lexical item are intended to reflect what is idiosyncratic about the meaning of that item. This can be instantiated by their analysis of the lexeme *bachelor*:



As an example of the application of the method can serve K. Hansen's (1982) description of the meanings of semantically related words by means of semes in a matrix form:

RELATIONS	S E M E S			
	MALE	CHILD	SIBLING	PARENT
parent	±	0	0	+
father	+	0	0	+
mother	-	0	0	+
sibling	±	0	+	0
brother	+	0	+	0
sister	-	0	+	0
child	±	+	0	0
son	+	+	0	0
daughter	-	+	0	0
uncle	+	0	+	+
aunt	-	0	+	+
cousin	±	+	+	+
nephew	+	+	+	0
niece	-	+	+	0

+ means applicability of the seme
+ means applicability of the opposite seme
± has the meaning “either - or”
0 means irrelevance.

2 WORD-FORMATION

2.1 Scope

According to **H. Marchand** (1960), who was probably the first to approach the problems of word-formation in a complex and systematic way in his work *The Categories and Types of Present-Day English Word-Formation*, word-formation is that branch of the science of language which studies the patterns on which a language forms new lexical units, i.e. words. Word-formation, in his view, can only treat of composites which are analysable both formally and semantically. The study of the simple word (moneme), therefore, has no place in it, because **monemes,** in the terminology of **A. Martinet,** are minimal, i.e. unanalysable in smaller bilateral units, linguistic signs. Roughly, this term coincides with the now generally used term morpheme. Thus, such lexemes as *do-er, un-do, rain-bow* are relevant to word-formation, but *do, rain, bow* are not.

This conception is based on the crucial term **syntagma** as construed by **F. de Saussure** (1989). The syntagma is conceived of as a combination of morphemes the relationship between them being that between the **determinant** (determining element) and the **determinatum** (determined element). It follows that each naming unit falling within the scope of word-formation is a syntagma consisting of a *determinant* and a *determinatum*, whether we have a compound (*head-ache*, where the first component is the *determinant*, and the second *determinatum*), a suffixation (*father-hood: father - determinant, -hood - determinatum*) or a prefixal derivative (e.g, *un-do: un- - determinant, do - determinatum)*. Both parts of each of the examples are morphemes. It should be recalled that in de Saussure's conception morphemes are signs, which means that they have both the form and the meaning. In other words, each sign is based on a *signifiant/signifié* relation.

The delimitation of the scope of word-formation as outlined above is rather narrow and can be called in question. There are word-formation processes such as conversion, back-formation, or blending that do not yield the naming units that would satisfy the above definition. Obviously, however, they also belong to the field of word-formation. So, for instance, the substantive noun *father* gives the verb *to father* (to treat in a father-like way), which is an illustration of conversion; or, $automation_N$ gives $to\ automate_V$, (back-formation); *brunch* (from *breakfast* and *lunch* - a case of blending). All the resulting lexemes are monemes that cannot be analyzed into the *determinant/determinatum* structure. However, their relation to the motivating naming units, i.e. units from which they were coined, is conspicuous. The representatives of the above conception solve the contradiction by introducing the notion of **zero morpheme,** and

apprehend, for instance, conversion as a special kind of derivation. They simply say that, for instance, *cheat*$_V$ to *cheat*$_N$, is the same as *write*$_V$, to *writer*$_N$. Or, *clean*$_A$ to *clean*$_V$, is the same as *legal*$_A$ to *legalize*$_V$, The only difference is that whereas in the case of suffixation "proper" the *determinatum* is expressed by an overt word-formative element, i.e. suffix (*-er, -ize* in our examples), in the case of conversion (or, in Marchand's terminology *zero-derivation*), the same role is played by *zero suffix* that carries the same meaning. Thus, *cheat*$_N$ can be analyzed as *cheat* + *zero*, where "zero" has the same meaning as *-er* in *writ-er* (denoting an Agent, a person that cheats - a person that writes). This approach, however, seems to be somewhat cumbersome - in addition to other shortcomings - it requires scores of "zero morphemes" of different meaning owing to a great number of various word-formative types. Moreover, it does not introduce a **contrast** between the motivating and motivated units (they differ by "zero morpheme", i.e. formally they do not differ at all), though contrast is one of the universal principles of language. Zero morpheme is justified in inflectional paradigms such as, for instance, the Slovak substantive paradigm "stroj" where the accusative form *stroj0* is in contrast to all other case forms.

Hence, it is more convenient to cover by word-formation all naming units which carry certain word-formative relationship of **motivation** to their underlying counterparts. In this way, we can include in word-formation without any difficulties the following **word-formative processes:** compounding, suffixation, prefixation, conversion, back-formation, blending and, conditionally, clipping.

2.2 Units

In the first part of this chapter, mostly devoted to lexical semantics, we pointed out that there exists a confusion as to the use of basic terms by various linguists. We also proposed **Mathesius'** term **naming unit** to become the basic unit of word-formation. Then, we can define the naming unit as a lexeme that is synchronically related to the word(s), from which it was coined, by the relation of motivation (including both form and meaning). The naming unit can be motivated by one or several words. What is, however, important it denominates a single object, phenomenon, action or circumstance of the extralinguistic reality and, as such, it formally functions as one lexeme (word). Thus, *national* is a suffixal derivative motivated by the word *nation*. On the other hand, *nationalize* is motivated by *national*. That part of the motivating word which enters a new naming unit is called **a word-formative base,** the derivative element is called **a word-formative element** (suffix, prefix). They are the **immediate constituents** of naming units with analyzable word-formative structure. It should

be noted that in the case of suffixal derivation and composition (*blackbird, green house, lady-bird*) it is not the word(s) that enter(s) into a newly coined word structure, but only the stem of the word(s). We speak about the **word-formative stem** (or, **word-formative base**). Another term used in the word-formative analysis is the **root.** The root is a form which is not further analyzable. It is that part of a word-form that remains when all inflectional and derivational morphemes have been removed. It is the basic part, always present in a lexeme. In the naming unit *untouchables*, for example, the root is *touch*, to which the suffix *-able*, then the prefix *un-*, and finally the inflectional morpheme *-s* have been attached. At the same time, *touch* functions as a word-formative base for the process of suffixation, and *touchable* functions as a word-formative base for the process of prefixation. In a compound naming unit like *wheelchair* there are two roots, *wheel* and *chair*, functioning as word-formative bases for the process of compounding. In a compound, they do not function as words, but as grammatically unformed word-stems.

2.3 Methods

Basically, three different approaches to word-formation can be distinguished: semasiological, onomasiological and transformational-generative. In the following, we shall briefly characterize each of them.

2.3.1 Semasiological method

The semasiological method proceeds in general from the form of naming units to their meaning. It usually concentrates on the question concerning the meanings (semantic structure) of word-formation types. The method focuses on the analysis of word-formation units, the specification of the individual components and morphological structures of naming units. It specifies analysable naming units, i.e. those that are morphologically motivated and correspond to the particular word-formation type. Thus, for example, if there is a naming unit such as *worker*, the semasiological method leads to the following conclusions: it consists of two morphemes *work* and *-er*. *Work* is a word-formation base and a root at the same time (as it is not further analyzable). *-er* is a suffix. The new naming unit thus belongs to the word-formation process of suffixation. The first component is a stem of a verb and functions as a *determinant*, the second component is a suffix that incorporates the new word into the word-class of nouns and functions as a *determinatum*. The stress pattern is a main stress on the first syllable. These data suffice to assign the naming unit to the formal pattern (word-formation model): $(\text{`V} + \text{-er})_{N}$ Semantically, the suffix classifies the word as denoting an Agent (a person performing some action). Since it is obvious that the person does his/her work professionally, the semantic

evaluation is completed by the seme +PROF. The particular word-formation pattern plus the above semantic information establish the corresponding word-formation type.

2.3.2 Onomasiological method

The onomasiological method focuses on the process of coining new naming units. The starting point is the **concept** or **conceptual meaning,** or it may be set into the extra-linguistic reality as an object of the process of denomination (referent). The particular object of denomination is conceptually processed in human consciousness and classified according to the principles valid in the given language. It is usually distinguished between the **onomasiological basis** (determined component) that classifies the object within a certain conceptual group, or class, and then, within that group, it is specified by means of an **onomasiological mark** (determining component). These two polar members of the **onomasiological structure** are connected by logical and semantic relations subsumed under the notion of **onomasiological connective.** For illustration, if we need to denominate an extra-linguistic object "a little child that frequently cries", we specify this object by means of conceptual categories (including the categories of SUBSTANCE, ACTION, QUALITY and CONCOMITANT CIRCUMSTANCES); in this case it is the relation between the concept of the category of SUBSTANCE (little child) and the concept of the category of ACTION (to cry). The former will function as an onomasiological basis, the latter as an onomasiological mark. Out of several possibilities concerning the linguistic expression of this relation (e.g. the onomasiological basis can be expressed by means of the suffix *-er*, by the constituent *child, baby, kid*, etc., the onomasiological mark can be linguistically expressed by means of the constituent *cry, weep, sob*, etc.), we choose the constituents *baby* and *cry*. Thus, from the onomasiological point of view the new naming unit *cry-baby* reflects the relation between SUBSTANCE functioning as an onomasiological basis, and ACTION, this being an onomasiological motive; the relationship between them is represented by the onomasiological connective "Agent performing an Action".

2.3.3 Transformational-generative method

The transformational-generative method develops the principles of transformational and generative grammar in application to word-formation. The process of coining new naming units is conceived of as a sequence of transformations starting at the syntactic level (the so-called **kernel sentences**), the outcome being a new lexeme. The basic postulate is that of the analogy between the "syntactic" and "word-formation" syntagmas, because they feature the same structural principle of *determinant - determinatum*. Furthermore, syntactic relations between the components, for example, of the compound and the sentence are supposed to be of the same

kind - they are the relations of subject - predicate - object - adverbial - complement, etc. The relations expressed explicitly in sentences are implicit in compounds.

It is a characteristic feature of this approach that its representatives, e.g. **M. Aronoff** (1976), **M. Halle** (1973), **D. Siegel** (1979), etc. pay much attention to phonological aspects of word-formation.

As maintained by **M. Aronoff, word-formation rules** sometimes include phonological changes that result in **allomorphy.** This kind of alternations is dealt with by **allomorphy rules.** For instance, words ending in the suffix *-fy* productively **nominalize** (i.e. they serve for the coining of substantives) by taking the affix *-ation*. However, then *-fy* is replaced by *-fic*, which is an allomorph of *-fy* (*electrify - electrification*). Another kind of rules dealt with in transformational and generative word-formation are **truncation rules:** they can be instantiated by the naming unit *lubricant*. This word is apparently derived by means of the suffix *-ant*. But the motivating verb is *lubricate*, which is not in accordance with mere adding the suffix to the motivating word (we would obtain something like **lubricatant*). Aronoff believes that there must be rules which selectively delete certain morphemes which are adjacent to other morphemes: such rules are called truncation rules.

It can be seen that much effort of the approach is aimed at revealing, as it were, "secondary" rules that condition the coining of new naming units.

2.3.4 Synchronic and diachronic methods

Apart from these methodological approaches to word-formation, two other methods can be distinguished. Just like any other linguistic issues, also those of word-formation can be examined from **synchronic** and **diachronic** points of view. These correspond to two aspects of word-formation. The aspect of the "history" of naming units, their etymological relationships on the one hand, and the aspect of the analysis of the existing naming units as outlined in the three above-mentioned methodological approaches. Thus, while the former method is aimed at the specification of the possible changes (both formal and semantic) in the course of time, the latter method concentrates on questions such as word-formation types (or rules), their productivity, word-formation analysis, the issues of lexicalization of naming units, etc.

In the following paragraphs, we shall briefly specify the individual word-formation processes in English.

2.4 Word-formative processes

2.4.1 Compounds

Compounds represent the most productive word-formative process. The reason is, to put it in the words of **A. Spencer** (1991), that "there is no linguistically principled limit to the lengths to which we can go in producing compounds. The reason is that a compound noun can be formed by adding a noun to another compound noun. This 'self-feeding' property of the compounding rule is known as **recursion.** As a result, compound nouns are, in principle, infinitely long, and there are, in principle, infinitely many of them". Spencer illustrates these words by the following example:

a) student film society
b) student film society committee
c) student film society committee scandal
d) student film society committee scandal inquiry
e) etc.

Certainly, the situation is not so simple as it might seem from the above quotation. Many authors would consider the above instances to be the so-called **collocations.** Numerous criteria have been suggested for the delimitation of compounds such as the existence of the main stress on the first syllable; the form of spelling; the semantic criterion as defined by **O. Jespersen** (1965) who maintains that if the meaning of the whole cannot be deduced from the meaning of the elements separately, the formation is apprehended as a compound, etc. None of these criteria, however, proved to be sufficiently reliable for various reasons. It seems that, as compounds are signs, just like all naming units, it is necessary to combine in the definition both the formal and semantic criteria. Then we can define compounds as naming units that 1. from the conceptual-semantic point of view denominate one single object of the extra-linguistic reality, and 2. from the formal point of view behave as a single lexeme, i.e. they are inflected as one whole - plural and genitive morphemes are attached to the lexeme as a whole, and not to the individual component parts; none of the components can be omitted (without affecting the meaning); no other word may be inserted between the components of the compound; the compound functions as a single word-class (noun, verb, adjective, etc.); it can change its position in the sentence as a whole only; the sequence of its components cannot be changed.

The criteria can be illustrated by an example. The compound *blackboard* denotes an object of the extra-linguistic reality as opposed to the syntactic phrase *black board* describing different

phenomena - a board and its quality (black colour). *Blackboard* denotes an object designed for writing with a chalk; as is generally known, a blackboard needn't be necessarily black. Formally, it forms the plural by adding the plural morpheme {-*s*} to the second element, however, it relates to the lexeme as a whole, it is not possible to change the sequence of the elements (*boardblack* has a completely different meaning), etc. In this way, we can test each compound for its "validity". What should be emphasized, however, is that English compounds needn't be necessarily written (spelled) together, they can be written apart or via a hyphen as well.

There are various ways of classifying compounds depending on the criteria chosen. We shall mention only some of them.

According to the **type of composition** (formal criterion), we distinguish compounds **without any connecting element** (*crybaby, blackbird, waterfall*), and compounds **with a connecting element** (*handicraft, Czechoslovakia*). The first type clearly dominates English compounds.

The classification can be based on the **sequence of determinant/determinatum.** Here we distinguish the compounds of **Germanic type** that prevail in English - the *determinant* precedes the *determinatum* (*blackboard, bedroom, greenhouse*), and compounds of the **French type** with a reverse sequence (*pickpocket, spendthrift*).

From the **semantic** point of view, we can classify compounds into **coordinative** (**copulative**) and **subordinative.** In the former type, the individual components are semantically equal and the meaning of a compound is given as a sum of the meanings of motivating components (*actor-manager, fighter bomber, biller sweet*). Subordinative compounds are made up of a determing and a determined components (*whetstone, payday, honey-bee*).

Finally, we shall adduce the classification into **endocentric** and **exocentric compounds.** The former, from the semantic point of view, are hyponyms of the *determinatum* and formally they belong to the same word-class as the second element. Thus, for instance, *blackboard* is a kind of board, both *board* and *blackboard* belonging to nouns.

Exocentric compounds are those compounds where the *determinatum* is not a hyponym of the second component, because, for instance, *highbrow* is not a kind of *brow*, and *redskin* is not a kind of *skin*. The compound as a whole is a hyponym of an explicitly unexpressed *determinatum* ("person" in our examples).

2.4.2 Suffixation

A suffix is a derivative final element which is or formerly was **productive** in forming words. A suffix has semantic value, but it does not occur as an independent speech unit. Suffixes are therefore bound morphemes attached to word-formative bases. It is necessary to point out that there are certain similarities and differences between derivative and inflectional morphemes. Morphologically, two words such as *citizens* and *citizenry* are formed on the principle "root plus affix". At first sight, as explained by **H. Marchand** (1960), the conceptual structures also look very much alike: the *-s* of *citizens* and the *-ry* of *citizenry* both express the idea of plurality, collectivity. But Marchand duly points out that the difference involved is one between grammatical function and lexical meaning. The *-s* of *citizens* is the inflectional formative of the grammatical category "plural", whereas *-ry* forms a class of words with the semantic basis "group, collectivity of…".

Each suffix functions as a determined element, it denotes a wider group of objects, or a more general phenomenon that is specified by the meaning of the word-formative base.

Provided that there are several affixes attached to the stem, their ordering is not arbitrary, but is controlled by specific rules determined mainly by the phonological and morphological structure of the stem. Thus, for instance, the naming unit unfaithfulness consists of the following morphemes:

un	-	*faith*	-	*ful*	-	*ness*
4		1		2		3

Number 1 designates the stem morpheme, 2, 3 and 4 are affixes. Out of them, 2 and 3 are suffixes and 4 is a prefix. Suffixes can (however needn't) change the word-class of a naming unit:

$(\text{institute})_{V} + \text{-ion})_{N} + \text{-al})_{A} + \text{-ly})_{Adv.}$

As to the origin of suffixes, there are two ways in which they may come into existence:

1. the suffix was once an independent word but is no longer one;
2. the suffix has originated as such, usually as a result of **secretion.**

The first case applies to some native suffixes. Thus, for example, the suffix *-less* goes back to OE *less* meaning "devoid of, free from. The suffix *-ship* has developed from the OE *scipe*, meaning "form, state". Sometimes the original word has been preserved next to the suffix. The

suffix *-dom* developed from a root word meaning "judgement, setting, jurisdiction". The ModE *doom* which goes back to the OE dōm means "evil fate".

The second possibility, i.e. that of secretion, pertains to the foreign suffixes that owe their existence to the reinterpretation of loans. From *landscape* (loan from Dutch) resulted the suffix *-scape* used then in combinations such as *parkscape, skyscape, moonscape, cloudscape, earthscape, roadscape,* etc.

When talking about the origin of suffixes, it is necessary to mention the so-callled **semiaffixes** as well. This term usually denotes such elements that stand midway between full words and suffixes. It means that in some features they resemble suffixes, in others they are closer to second constituents of compounds. This state of affairs sometimes occurs despite the fact that affixes are more or less clearly delimited with respect to the constituents of compounds. The basic features of suffixes can be summarized as follows:

1. They are relatively easily separated from the word-formative stem, which, after removing the suffix, can be used (provided with an appropriate inflectional morpheme) as a self-contained lexeme, and, at the same time, it can serve the process of derivation by means of various affixes. Thus, if we remove the suffix from the naming unit *worker* we obtain the stem *work*, which can be used in any person: *I work, he works,* etc. Moreover, it can be used for another kind of derivation: *workable*, i.e. by means of the suffix *-able*.

2. Affixes are morphemes carrying a highly generalized meaning relating to a whole class of objects. By being attached to a word-formative base, the suffix becomes a *determinatum* (onomasiological basis), thus classifying the object within such a general class. Thereafter, it is specified by the *determinant* (onomasiological mark).

3. Affixes usually feature very high productivity, i.e. they can be used for the coining of a large number of naming units. The productivity of affixes tends to be much higher than that of the second constituent of compounds. It should however, be noted that the notion of productivity is rather relative, both synchronically and diachronically.

It would seem that these criteria suffice for setting a clearcut borderline between suffixes and second constituents of compounds. Nevertheless, there are exceptions to the rule. So, for example, such elements of the English vocabulary occurring as independent nouns (*man, berry, land*) have been very frequent as second elements of naming units. They seem to have acquired some features typical of suffixes. They are mostly unstressed, and the vowel sound has been reduced. On the other hand, the reduction is not regular, which pertains to the stress pattern as well. Thus, *man* occurs in a great number of combinations (*seaman, spaceman, postman, clergyman, policeman,* etc.). It seems that, as a second component of combinations, it acquired

a more general meaning resembling that one of the suffix *-er*. It is especially conspicuous when we use this element about women (*the chairman, Miss Smith...*). In many combinations, its pronunciation started to be reduced. On the other hand, in some cases it has preserved its full, unreduced pronunciation (e.g. *oilman*). Moreover, the plural forms are not formed by the suffix *-s* as one would expect for suffixes, but the form is the one of an independent lexeme: *men*. There are some other points that mean that the status of *man* is ambiguous. Hence the term **semiaffix**.

2.4.3 Prefixation

Prefixes are morphemes that are prefixed to full words and modify their meaning. They cannot stand independently, and thus they are bound morphemes. Prefixes are usually put into one category with suffixes, the common term being affixes. A closer investigation, however, reveals that there are significant differences between these two types of bound morphemes. Prefixes never function as *determinata*, they never occur as onomasiological bases. It follows that they cannot classify the denominated object in regard to a general class of objects. Consequently, they only modify the basic lexical-semantic meaning of the lexeme. Hence, the suffix and the prefix belong to two different categories and the common term is admissible only as to the formal aspect of word-formation.

Just like suffixes, prefixes too, are of domestic and foreign origin. Native prefixes have developed out of independent words. Their number is small: **a-, be-, un-, fore-, mid-,** and **mis-**. Prefixes of foreign origin came into the language, as it were, ready-made: when a number of analysable foreign words of the same structure had been introduced into the language, the pattern could be extended to new formations, i.e. the prefix then became a productive derivative morpheme. With the lapse of time, some of these prefixes developed as independent words, such as *counter, sub, arch*.

2.4.4 Conversion

Conversion has already been mentioned in this chapter and it should be emphasized that it represents one of the hard nuts of theoretical linguistics.

In English, there are many naming units that have the same spelling (and usually the same sound form, except for some instances of a changed stress pattern), for example: *father*$_N$ - *father*$_V$, *hammer*$_N$- *hammer*$_V$, *butter*$_N$ - *butter*$_V$, *time*$_N$ - *time*$_V$, *come back*$_V$ - *comeback*$_N$, *laugh*$_V$ - *laugh*$_N$, *award*$_V$ - *award*$_N$, *terminal*$_A$ - *terminal*$_N$, *peripheral*$_A$ -*peripheral*$_N$, *blind*$_A$ - *blind*$_V$, *empty*$_A$ - *empty*$_V$, *correct*$_V$ - *correct*$_A$, *back*$_{Adv}$ - *back*$_V$, etc.

Apart from the conception of **zero morpheme** briefly characterized above and represented first and foremost by **H. Marchand** (1960, 1974), **D. Kastovsky** (1968, 1982), **V. Adams** (1973), **L. Lipka** (1991), etc., there are also some other approaches. Sometimes it is spoken about the so-called **functional shift,** i.e. the change of the syntactic function of a particular word. For example, *blind* is typically an adjective functioning as an attribute or as a complement. However, in the sentence *He blinded his enemy* it is "temporarily" used as a verb functioning in the sentence as a predicate. In this conception, the naming unit $blind_A$ has been simply utilized in the function of another word-class - in a function that is not typical of it. This process is called **transposition** (Marchand 1974).

No doubt, there is yet another possibility of treatment.

We can conceive of conversion as an independent word-formative process that is characterized by its specific and unique features. We shall not go into details of the problem, however, it should be remembered that conversion is a very productive way of expanding the English wordstock. The potential for conversion is immense, and it belongs to the competence of the native speaker to produce and correctly interpret converted words. The more so that conversions can express multiple semantic shades. It should also be noted that the basic features of conversion are as follows:

1. sound (spelling) identity of the motivating and the motivated naming units
2. change of word-class and the corresponding change of related paradigmatic and syntagmatic features
3. related basic lexical meaning (as opposed to homonyms).

It is important to realize that not all words coinciding in their spelling are conversions. Based on the above characteristics the distinction between conversions and homonyms, and between conversions and polysemantic lexemes is clear. Sometimes even the pair complies with the above definition, but it cannot be regarded as a conversion pair. The identity of forms and the relatedness of lexical meaning may result from the development of items that has led to a merger of originally two formally different, though semantically closely related lexemes. A case in point is the lexemes $love_N$ and $love_V$. Etymological examination reveals that the forms of these two lexemes were originally different: $lufu_N$, - $lufian_V$.

2.4.5 Back-formation

L. Bauer (1983) defines the process of back formation as the formation of a new lexeme by the deletion of a suffix, or supposed suffix, from an apparently complex form by analogy with other instances where the suffixed and non-suffixed forms are lexemes. It is possible to

agree with this definition, except for one point - the element that is being deleted cannot be, in any way, termed *suffix*. Otherwise, it would imply a process of suffixation preceding the back-formation process, which is not the case. Since the "deletion" of a particular element results in the *formation* of a new *word*, it might be more appropriate to speak about a "detachable word-formative segment". To illustrate the case, the motivating naming unit *swindler* gave the word *to swindle* by removing the segment *-er*. *To automate* goes back to *automation, air-conditioning* gave rise to to *air-condition*, *frivolous* motivated *to frivol*, etc.

Again, there are different opinions as to the status of back-formation. **D. Kastovsky** (1968, 1982) believes back-formation to be synchronically another special case of zero-derivation. He supports his standpoint by the following equation: *peddlar: peddle = writer: write*, which means that the model *V + -er/-or/-ar* functions as a model for back-derivation, and the model *V + -ation* (e.g. concentrate: concentration) functions as a pattern for back-formations of the type *automation : automate*. For some other linguists, for example, **H. Marchand** (1960), back-formation is of diachronic relevance only; synchronically, as illustrated above, it merges with derivation. Once more, we would like to emphasize that back-formation is a unique word-formation process controlled by its specific principles. It is a productive way of coining new naming units in contemporary English and features its unique word-formation types.

A special case is represented by the instances of **popular etymology** that resulted in back-formation. It applies to the so-called inflectional back-formations: the word *pea* has been back-formed from the original singular *pease* /pi:z/that, owing to its pronunciation, started to be felt as a plural form. The term *popular etymology* deserves a brief remark. In the interpretations and modifications of popular etymology can be, namely, seen the evidence of human need for **motivation.** People gave one of the best known constellations the names *Great Bear* or *Great Dipper* or the *Plough* (in many languages it is called *Great Chariot*). The names *Great Dipper*, *Plough* and *Great Chariot* are self-evident: the constellation does look like a dipper with a long handle or a plough or chariot with a wagon pole. But where is the similarity with a bear? Even the most active imagination would be unable to find the slightest resemblance. However, as explained by **Baldinger** (1980), it turned out that the original and authentic name was *chariot*, while *bear* is based on a misunderstanding of popular etymology. The image of a chariot was also used in ancient Mesopotamia: in Akkadia the same word meant *chariot* as well as *bear*. This was misunderstood by the Greeks and translated as *bear*.

2.4.6 Blending

Blending can be defined as the process of coining new naming units by merging parts of originally independent words. It is another word-formation process that yields naming units that cannot be structurally analyzed into a *determinant* and a *determinatum*. Blends (or **portmanteau words**) that result from the process are always monemes whose meaning is in no way a mere sum of the meanings of the motivating words. Blends constitute semantically a new quality. Thus, for instance, the blend *smog* is motivated by *smoke* and *fog*. This is the clearest example of blends. Other recent instances are *chunnel* (channel - tunnel), *dawk* (dove - hawk), *shoat* (sheep-goat). Another type of blends is represented by naming units where the two motivating words are both present in their entirety in the blend, though there is an overlap. The overlap may be in pronunciation, in orthography or both: *glasphalt, octopush, guestimate, slanguage*, etc. Another kind of blends includes formations such as *autocide* (automobile - suicide), or *stagflation* (stagnation - inflation). Sometimes a part of these blends is re-evaluated as an affix subsequently used in other formations, e.g. *motorcide*.

Chapter VI

Syntactical Level

1 GENERAL

Traditionally, grammar is divided into two parts - morphology and syntax. Whereas the former deals with the internal structure of word-forms, with the internal relations between the constituents of word-forms, the latter is interested in the external relationships, that means relationships between words. We can say that syntax is concerned with the analysis of structures and regular patterns of sentences. In other words, it deals with the patterned interrelations of words in the sentences of a language. Each language can produce an infinite number of sentences out of a limited number of elements. This is where the power of human languages stems from. The individual sentences differ from each other, which is achieved by two ways:

1. either by using different elements in sentences, or

2. the same elements are used in different **arrangements.**

Certainly, both of these possibilities may be combined.

When we talk about arrangements of elements, we do not mean only the sequential linear ordering of elements. Arrangements pertain to the relationships between various parts of a sentence. For instance, in the sentence *Jack and Jill ran up the hill* the relationship between the elements *Jack* and *Jill* is different from the relationship between *Jack and Jill* and the rest of the sentence. When two sentences are said to have the same arrangement, it means that the relationship between the parts in the two sentences is identical. Another way to describe the similarity between the parts of two sentences is to say that the corresponding parts have the same **function.** When analyzing sentences, we usually divide them into smaller units that are called **immediate constituents**.

2 IC-ANALYSIS

The term “immediate constituents” was first introduced into linguistics by **L. Bloomfield** (1973), however, the theory of immediate constituents has been systematically developed by **R.S.Wells** in his work *Immediate Constituents* (1947) and some other well-known American linguists, such as **Harris** (1951), **Fries** (1952), **Hockett** (1958). According to the theory of IC, each sentence can be split into two parts, two constituents, and each of them can be further subdivided into two constituents. The analysis can proceed until the **ultimate constituents,** i.e. further indivisible constituents, are revealed. The process of the IC-analysis thus yields a hierarchy of several layers, and the constituents that appear next to each other on the same layer are called immediate constituents. Bloomfield illustrates the idea by the following example: The immediate constituents of *Poor John ran away* are *poor John* and *ran away*. Each of these can be, in turn, divided into smaller constituents: *Poor* + *John*, and *ran* + *away*, respectively. *poor, John, ran, away* are thus called ultimate constituents. IC-analysis has become a dominant method of syntactical analysis from its very beginnings. What are its advantages?

1. IC-analysis makes it possible to reveal basic syntactic patterns common to a large number of sentences of a language, i.e. the structural shape or form of the substance (core) of the utterance. This is related to the notion of **rank** of constituents. In other words, it is the most effective way of showing the inner **layering** of sentences. The above-mentioned basic **syntactic patterns** represent the simplest form of the particular sentence types from which innumerable longer sentences can be built up by series of expansions at various structural places of the patterns. In this respect, it should be noted that in English, the utterances usually consist of two obligatory parts which show a very high probability of occurrence in a particular order in relation to each other. And this is the crucial point of IC-analysis. In other words, in English, a great many sentences contain what is traditionally called a **subject** and a **predicate.** These two constituents thus form the core of the analysis, the usual first step, the first division on which all other steps depend.

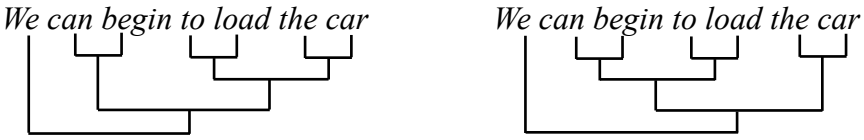
2. IC-analysis can help us in finding out what the units are that compose utterances so that we can decide, for instance, what we mean precisely by such words as **sentence, clause, phrase.** If we take a large number of analyses, there will be many of the same patterns, although the actual words within the pattern will be different. In this way, we can compare similarities and differences in these patterns and come to conclusions about them.

3. This method reveals the constituents of an utterance and can tell us something about the relationships among them. This enables us to make some description of the grammatical system of a language.

4. This method represents a means of classifying the elements of a language and thus permits us to see how to distinguish among them and understand their behaviour.

Nevertheless, the experience of linguists in the application of the method reveals some disadvantages too:

1. One and the same sentence sometimes admits two different alternative configurations:



2. Discontinuous elements cannot be adequately represented

3. The IC-analysis is aimed at the surface structure relationships and does not analyse the deep structure. (This is the objection of the representatives of the transformational-generative method - for the basic principles and terminology, see Chapter 8).

The basic principles of IC-analysis as specified by **Darbyshire** (1971) are as follows:

1. As the IC-analysis proceeds downwards, only one split can be made in any segment in any rank.

2. Once the segment has been cut off in any rank, it must remain cut off in all the ranks (layers) below.

3. In any closed box, a meaningful substitution can be made.

In this connection, it should be explained that substitutability in a given context is the key to the discovery of immediate constituents. Those sequences which can replace each other in the same **grammatical environment** play the same role, have the same grammatical function in the sentence.

Darbyshire illustrates the above principles as follows:

Paul Bril was a Flemish landscape painter.
Paul Bril | **was a Flemish landscape painter.** 1
Paul Bril | was|**a Flemish landscape painter.** 2
Paul Bril | was|a|**Flemish landscape painter.** 3
Paul Bril | was|a|Flemish|**landscape painter.** 4
Paul Bril | was|a|Flemish|landscape|**painter.** 5

The figures on the right denote the rank of the constituents. As to the third principle, the constituent *Paul Bril* can be substituted by other constituents fitting into the structural pattern: *He; The man named Paul Bril*; etc.

As might be seen, in this text, we used two different graphical representations. It should, however, be noted that various types of notations have been proposed, including various forms of the **tree** or **bracketing.**

3 UNITS

Syntax deals with units of various complexity. **J. Lyons** (1968) distinguishes five units of grammatical description: morpheme, word, phrase, clause, sentence. The relation between them is that of **composition.** If we call the sentence the highest unit and the morpheme the lowest one, we can arrange all five units on a scale of rank, saying that units of a higher rank are composed of units of a lower rank. Since we have dealt with the first two in the preceding chapters, the center of gravity of this one will be on the remaining three. Probably the most important of them, or the one which was the object of extensive examinations, is the **sentence. Fries,** in his work *The Structure of English* (1952), puts it that "more than two hundred different definitions of the sentence confront the worker who undertakes to deal with the structure of English utterance." The abundance of definitions witnesses how difficult it is to correctly construe the sentence. Fries further points out that practically all of this tremendous labor which has concerned itself with defining the sentence as a grammatical unit, has approached the problem of analysis by way of meaning or through content. Linguists assumed that language is a reflection of thought and that grammar must therefore represent the laws of human thought. Fries considers it impossible to give a definition of the sentence in terms of the meaning content, as the same content may be put into a variety of linguistic forms, some of which can occur alone as separate utterances and some of which always occur as parts of larger expressions. In addition, each language has its specific patterns of formal organization of the utterance. Fries believes that it is only the formal grammar that can provide an appropriate definition, the formal grammar being conceived as a grammar that, both in theory and in method, is concerned with the observable forms, structural functions, and interrelations of the components of sentences or stretches of utterances. Hence, Fries selects as the most appropriate of all the definitions the one given by **L. Bloomfield** in his *Language* (1933). We cannot agree with this standpoint because, like any other unit of language, the sentence is a unity of form and meaning, and hence, a "good" definition should reflect both of these aspects. Nevertheless, this standpoint of Fries perfectly illustrates the way of linguistic thinking of American linguistics for the major part of this century, i.e. the overemphasis on form to the detriment of meaning. This approach is interwoven with all linguistic issues dealt with by American structuralists and post-structuralists.

To return back to Bloomfield's definition: he defines the sentence as an independent linguistic form, not included by virtue of any grammatical construction in any larger linguistic form. That means that the sentence is the largest unit of grammatical description. He explains

his position in the following way: in any utterance, a linguistic form appears either as a constituent of some larger form, as does *John* in the utterance *John ran away*, or else as an independent form, not included in any larger (complex) linguistic form, as, for instance, *John* in the exclamation *John!*. When a linguistic form occurs as a part of a larger form, it is said to be in **included position;** otherwise, it is said to be in **absolute position** and to constitute a sentence. This being a purely formal definition of the sentence, it is worthwhile mentioning another one which is more complex. **V. Mathesius** (1936) defines the sentence as follows: "The sentence is an elementary speech utterance, through which the speaker (or writer) reacts to some reality, concrete or abstract, and which in its formal character appears to realize grammatical possibilities of the respective language, and to be subjectively, that is, from the point of view of the speaker (writer) complete". **J. Vachek** (1992), in his reaction to the definition, highlights that it emphasizes the function of the reaction to the extra-linguistic reality and that it also covers sentences emotively colored, and not only those of purely communicative value. On the other hand, he does not agree with the part mentioning the realization of formal possibilities of the given language, because "the author did not recognize as genuine sentences those which formally trespassed against the valid language norm". We would like to support Mathesius' standpoint, because we deem it proper that each grammar whose dominant task is the discovery of rules and principles governing the language use should and actually does concentrate on the generally correct usage of language (in spite of the fact that, sometimes, grammatically incorrect utterances may be intelligible to the listener or reader).

3.1 Sentence types

In traditional grammar, sentences are classified into different types in two ways: first of all by functions, as **statements, questions, exclamations** and **commands;** and secondly according to their structural complexity, as **simple** and **multiple.** A simple sentence consists of a single independent clause. A multiple sentence contains one or more clauses as its immediate constituents. Multiple sentences are either **compound or complex.** In a compound sentence, the immediate constituents are two or more **coordinate clauses** (they have equivalent function). In a complex sentence, one or more of its elements, such as direct object or adverbial, are realized by a **subordinate clause** (**Quirk** et. al 1985). The latter case means that the main clause is modified by one or more subordinate clauses, which are constituents of the **main clause,** grammatically dependent upon it and generally introduced by a subordinating conjunction (*if, when*, etc.). This type of clause can be further subdivided by **function** as **nominal, adjectival, adverbial, temporal, conditional, relative,** etc.

A different classification has been worked out by **Darbyshire** (1971), who distinguishes five sentence types in English based on different **syntagmatic relationships** among the following groups: SUBJECT (S), COMPLEMENT (C), OBJECT (O), INDIRECT OBJECT (O_2), INTRANSITIVE VERB (I), TRANSITIVE VERB (T) and ADVERBIAL GROUP (A). Every sentence must have at least one group - the maximum being four groups. The above groups fall within three major groups: **nominal, verbal** and **adverbial.** Thus, the five basic sentence types (or, patterns) are as follows:

1. SI	The sun + shines.
2. SIC	The sun + is + a star.
3. STO	The sun + melts + the ice.
4. STO_2O	The sun + gives + us + warmth.
5. STOC	The people + elected + him + president.

The position of the verbal group is normally second. It follows the subject. Hence, the subject normally occurs at the beginning of sentences of the basic types. Object groups occur only in three of the five sentence types, and their position is normally after the verbal groups. In STO_2O type sentences, where there are two objects, the indirect object can be preceded by either "for" or "to". Thus, we can say either *The sun gives us warmth* or *The sun gives warmth to us*. Complement groups occur only in two of the five basic types. They differ from other nominal groups in that there seems to be only a limited range of verbs that they can follow (*to be, to seem, to become,* etc.) and also that in some complement positions, lexemes of adjectival behavior can occur which cannot occur in positions of subjects or objects. Thus, we can say *The sun is hot,* where the form *hot* is a complement; but we cannot say **The sun melts hot*.

In regard to the feature of **transitivity,** we may distinguish: **transitive** and **intransitive sentences.** Transitivity is determined by the verbal group that determines the whole form of the sentence. Out of the five basic sentence types, three belong to the transitive sentences, and two represent intransitive sentence types.

3.2 Clause

The clause is a sentence-like segment of a sentence. Structurally, a clause can be exactly the same as a sentence of any type, containing the subject, object, complement, intransitive verb, transitive verb or passive verb, and the syntagmatic relations of groups within a clause can be dealt with in the same way as in an active or passive sentence.

In English, there are three main types of clauses. We distinguish:

1. NOMINAL CLAUSES that can function as the

a) **Subject:** *Whatever he did* (was wonderful)

b) **Complement:** (That is) *what he said*

c) **Object:** (He said) *that they were discussing the development programme*

d) **Indirect Object:** (He gave) *whoever pleased him* (the benefit of his advice)

e) **Apposition:** (The fact) *that he said so* (is enough for me).

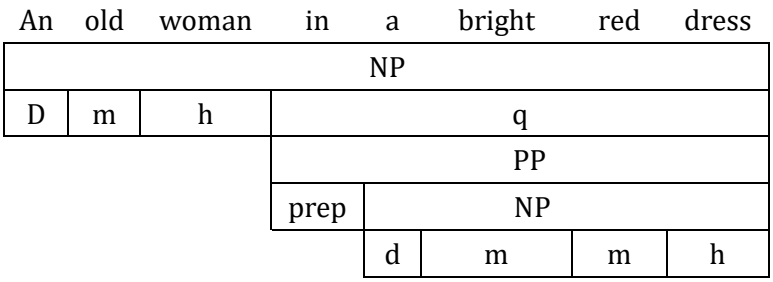
2. ADJECTIVAL CLAUSES that function mostly as postmodifiers of the heads of nominal segments: (Those people) *who have not seen it*.

3. ADVERBIAL CLAUSES that function as **adjuncts** to verbs like adjectives and adverbs, and can function as sentence adverbs. Adverbial clauses have two main functions. The first is to restrict the area of reference of verbs as to time, place, manner or condition (they are introduced by words as *when, after, before, while, where, as, if, unless, although,* etc.). The second is to indicate comparisons (they make use of such words as *than, as...as*). Examples of the former type are: *I shall be there when I am ready*. *I shall be there if I am ready*. Examples of the latter type are: *He has given you more than he admitted. He is not as tall as I am.*

3.3 Phrases and constructions

A word or a group of words which is grammatically equivalent to a single word and which does not have its own subject and predicate is called a **phrase,** e.g. a *good boy*, a *nice flat*, *very interesting*, etc.. The dominant word is called the head and if the phrase contains just one word, it only contains the head. As adduced by **M. Bázlik** (1991), according to whether the dominant word is a noun, a verb, a n adjective, or an adverb, we have noun phrases, verb phrases, adjective phrases and adverb phrases. Elements which precede the head are called **modifiers** and those which follow it are called **qualifiers.** The elements describing the head modifiers can be either **premodifiers** or **postmodifiers.** For illustration, we give an example borrowed from Bázlik (1991):

an old woman in a bright red dress is a noun phrase with the following structure:



The diagram should be read as follows: The whole string of words is a noun phrase with *woman* as head, *old* as premodifier, *an* as determiner, and *in a bright red dress* as postmodifier. The postmodifier is a prepositional phrase consisting of a preposition *in* and the noun phrase *a bright red dress*. The head of this NP is *dress*, while *bright* and *red* are modifiers, and *a* is determiner.

By the term 'construction' we mean the grouping and combining of words in a sentence, and their resulting relationships to each other. We distinguish two main types of constructions: **endocentric** and **exocentric.** Endocentric constructions are those in which the group in question is **syntactically equivalent** to one or more of its component words or successively smaller constituents. The absence of such an equivalence yields an exocentric construction. Exocentric constituents are, e.g., those in the basic sentence structures. It can be illustrated by the sentence *Father smokes*. It is a basic sentence, further irreducible. None of its immediate constituents, that means neither the nominal nor the verbal constituents, has the same syntactic possibilities as the group noun-verb.

Endocentric constructions are either **subordinative** or **coordinative.** *Men and women* is a coordinative endocentric construction, while *clever boys* is a subordinative one. While in the former case any of the constituents can play the same syntactical role as the construction as a whole, in the latter case, it is only one of the constituents, namely, *boys*. The constituent *boys* is therefore called the *head* of the construction, the other components are subordinate to it. Thus, in English A-N groups, the noun is the head and the adjective is subordinate to it; in Adverb-Adjective groups, the adjective is the head and the adverb is subordinate, since in general, the group is equivalent to a single adjective but not to a single adverb. In reasonably *clever boys*, *boys* is the head and *reasonably clever* is subordinate, and within the latter group *clever* is the head and *reasonably* is subordinate.

4 LOGICAL, GRAMMATICAL AND PSYCHOLOGICAL CATEGORIES

The **subject** and the **predicate** are the most important constituents of English sentences; however, these terms have been used in various meanings. For instance, in literature on syntax one can come across three different meanings of 'subject': **logical** subject, **psychological** subject, **grammatical** subject. **Logical subject** is the term used in traditional logic. In the sentence *The letter was written by Peter*, the logical subject in *Peter*, as it always implies an Actor, an originator of the action, irrespective of its position in the sentence. On the other hand, the **grammatical subject** of the sentence is *letter*. In the active sentence *Peter wrote the letter*, the grammatical subject of the passive sentence becomes a direct object, while *Peter* becomes the grammatical subject. It should be, however, noted that the logical subject in both of these sentences is the same - *Peter*. Moreover, the term subject is used by some authors as **psychological subject** (in a dichotomy with the term **psychological predicate**) especially in older works (**W. Wundt** 1922), **Georg von der Gabelentz** (1891). These terms correspond to **Mathesius'** terms **theme** and **rheme** (1975), respectively, or to the terms used by the Western linguists and introduced by **Ch. Hockett** (1958b/): **topic** and **comment.** For details, see the section on functional sentence perspective.

As already mentioned above, the subject and the predicate represent the most important and obligatory sentence constituents. The so-called **adjuncts** (of place, time, manner, reason, etc.) are, as **modifiers** of the **heads** (essential components of groups) upon which they are dependent, optional constituents: they may be removed without affecting the remainder of the sentence. Therefore, **J. Lyons** (1968) speaks of the **nucleus** of the sentence formed by the subject/predicate combination, and the adjuncts are called **extranuclear** constituents. Thus, for instance, the sentence *I put the book on table yesterday* insists of the subject (*I*), predicate (*put the book*), this consisting of a transitive Verb (*put*) and a direct Object (*the book*), and the adjuncts of place (*on the table*) and time (*yesterday*). The adjuncts may be omitted without interfering the grammaticality of the sentence. In determining the subject, predicate, and adjuncts, it is the word order which plays the most important role in English. *Peter helped John* and *John helped Peter* are two different sentences with different subject/object representations, in spite of containing "the same" words.

5 SYNTACTIC RELATIONS

The brief comment on the word-order in English leads us to another important aspect of syntax, i.e. **syntactic relations.** Namely, word order represents observable relations, also called **positional relations.** In the section devoted to the IC-analysis, we mentioned the relations of substitutability, saying that this kind of relation refers to classes of words and phrases that can be substituted in the same sentence environment. Relations of **substitutability** are an important principle as to the analysis of the sentence. Still, there is a third kind of syntactic relations - **relations of co-occurrence.** Just like relations of substitutability, the co-occurrence relations belong to **covert type** of relations. They mean that words of different sets of classes may permit, or require, the occurrence of a word of another set of classes to form a sentence or a particular part of a sentence. Thus, in English, words of the class *man, horse*, etc. may be followed by words of the class *eat, live*, etc. Words of the former class, then may be preceded by words of the class *good, strong*, etc., and also by the words *the* and *a*. On the other hand, *the* and *a* require the presence of a word of either the *man* class or the *good* class. It follows from these rules that if we have four words of four different classes: *the* - *strong* - *horse* - *eats*, then the only admissible ordering of them is one given in the preceding line.

In the preceding paragraph, we have mentioned the term rules. It plays an important part in modern syntactic theories aimed at discovering regularities in syntax and formulating the sets of rules governing these regularities. In general, syntax gives rules for combining words to form grammatical (which means **grammatically correct**) sentences. An example of such a rule is taken from **J. Lyons** (1968):

$\sum_1$: T + N + V + T + N

where
T stands for article
N stands for nouns
V stands for verbs
$\sum$ stands for sentence.

The subscript numeral attached to $\sum$ indicates that the rule accounts for only one class of sentences. The rule may be read as follows: “Any combination of words which results from the substitution of one member of the appropriate word-class, chosen at random from the word-list

in the lexicon of the language, in place of the symbols T, N and V at each position of the linear formula T + N + V + T + N is a sentence of type I". The grammatical rule presupposes not only a lexicon in which all the words of the language are given the appropriate grammatical classification as N, V or T, but also one or more rules of lexical substitution for the replacement of the word-class symbols with words. The above rule is a very comprehensive rule covering an immense number of sentences, though grammatical (with respect to the principles underlying the above rule), but many of them unacceptable semantically. Therefore, it is possible to specify a subtler starting classification. The category of N can be, for instance, subdivided into

N_a = dog, man, chimpanzee, linguist, child,...
N_b = banana, door, milk, meat,...
N_c = fact, meaning, structure, etc.

The same can be done with verbs:
V_d = eats, bites, frightens, undresses, sees, ...
V_e = recognizes, determines, sees, eats,...
V_f = determines,...

Then, for instance, it is possible to formulate the rule
a) $\sum 1$: T + N_a + V_d + T + N_a (e.g. *The dog bites the man*)
b) $\sum 2$: T + N_a + V_d + T + N_b (e.g. *The chimpanzee eats the banana*)
etc.

This subtler delimitation of the conditions for the rules enables us to avoid many semantically unacceptable sentences (e.g. *The banana frightens the linguist),* however, there are still many unacceptable sentences that can be generated by the rule. Hence, each subsequent and more detailed classification would reduce the number of unacceptable and increase the number of acceptable sentences. In this connection, Lyons (1968) speaks of the **principle of diminishing returns,** which means that in this effort, a linguist is establishing more and more rules, each covering only very few sentences, which leads to the loss of generalization.

6 CONCORD AND GOVERNMENT

Two relationships are significant as to the forms of individual word-forms within sentences. **Concord** (or **agreement**) is defined by **Robins** (1971) as the requirement that the forms of two or more words of specific word-classes that stand in specific syntactic relationship with one another shall also be characterized by the same paradigmatically marked category (or categories). This can be illustrated by English nouns and verbs in sentences of the type *The man eats* and *The men eat*: they exhibit the concord of number in that both noun and verb in the construction must be either singular or plural. Concord between the category of person in pronouns and verbs is reflected in adding the inflectional ending -s to verbs combined with personal pronouns of the 3rd person singular: *he eats* as opposed to *I/you/we/they eat*.

Government (or **rection**) is defined by the same author as the requirement that one word of a particular class in a given construction with another word of a particular class shall exhibit the form of the specific category. In English, government applies only to pronouns. Prepositions and verbs govern particular forms of the paradigms of pronouns according to their syntactic relation with them: **to me, to us, I helped him, he helped me,** etc.

7 FUNCTIONAL SENTENCE PERSPECTIVE

The theory of Functional Sentence Perspective (FSP) was systematically elaborated by the Prague School of Linguistics. Some issues, however, were dealt with by linguists of the 19th century. Mentioned should be **Henri Weil, Herman Paul, Georg von der Gabelentz** and **P. Wegener** (Černý 1986) who were mostly interested in the psychological aspects of sentence arrangement. **V. Mathesius,** who gains recognition for the systematic development of the theory, was, however, influenced predominantly by **Anton Marty,** who, in his study *Über die Scheidung von grammatischem, logischem und psychologischem Subjekt bzw. Prädikat* (1897), distinguished between the psychological or logical subject and predicate, and grammatical subject and predicate. The fundamental terms of FSP, i.e. **theme** and **rheme** were introduced by **H. Ammann** in 1928 (Černý 1986). **Mathesius** elaborated the theory of FSP mainly in his studies **Zur Satzperspektive im modernen Englisch** (1929), ***O takzvaném aktuálním členění věty*** (1039), and in his book **A Functional Analysis of Present Day English On a General Linguistic Basis** (1975).

According to his approach, the sentence can be divided into two parts, the theme and the rheme. The former represents the basis, the part about which something is stated. It does not bring new information and usually represents a link to the previous part of the text; or it follows from the context. The latter part is the nucleus of the utterance representing the actual new information. It should be, however, stressed that there are differences as to the terminology used. Apart from the term Functional Sentence Perspective, one can come across the terms **topic-comment structure** introduced by **Ch. Hockett** (1958b/), or **background - focus** and **given - new information** (Richard et al 1985).

FSP combines in itself syntactic and semantic approaches to the organization of the sentence and makes it possible to understand how the semantic and grammatical structures function in the very act of communication.

In the following part, we shall briefly characterize the basic terms and principles of the FSP.

7.2 Theme

J. Firbas whose theory of FSP is world-known defines the theme from the point of view of the notion of **communicative dynamism:** The theme of a sentence/clause is constituted by the element(s) that carries (carry) the lowest degree of communicative dynamism within the sentence/clause. It was **J. Firbas** (1961) who introduced the notion of communicative

dynamism into the FSP-theory. The communicative dynamism of a certain sentence element is determined by the degree to which it "pushes forward the utterance". Hence, in a sentence we can distinguish various degrees of communicative dynamism. Thus, in the sentence *John went home* as an answer to the question *Where is John?*, it is *John* that functions as a theme because it does not bring any new information (we know about him from the previous context). The rheme of the sentence is then represented by *went home*. Firbas speaks of the so-called **basic distribution** of communicative dynamism if the subsequent elements in the sentence feature an ever-increasing degree of communicative dynamism, this being the case of our above example: the most valuable information pertains to what the question is about (*Where is John: at home*). The information value of *went* is somewhere between *John* and *home*.

It conveys the information that John has not remained here and has changed the place of his stay, however, it tells us nothing about the place itself. Based on the distribution of communicative dynamism the sentence can be divided into the **thematic** and **non-thematic** parts. Furthermore, the thematic point of view should be related to the **contextual** one in regard to the relationships between themes and the particular text. In addition to the communicative dynamism and the context, two other factors play an important part in constituting and identification of the theme of the utterance: theme as a starting point of the sentence, its beginning - from the point of view of **sentence linearity,** and theme as an elementary means for the text development - from the point of view of the **sequence of themes.**

7.3 Rheme

As already mentioned, the rheme is that part of the sentence that brings new information, the part with the highest degree of communicative dynamism. There are linguists working only with the dichotomy theme - rheme. Others, however, introduce an additional term - the **transition** which was already introduced by **V. Mathesius.** The transition is usually represented by the so-called **temporal** and **modal exponents** of the verb. While the verb itself (as a carrier of lexical-semantic meaning) becomes either the theme or the rheme, its temporal and modal exponents, i.e. the elements expressing the categories of tense and mood, represent the transition.

Functional sentence perspective is affected by several factors: context, semantics, sentence linearity and prosodic features.

7.4 Context

In this point, the approaches differ as to the scope of the context. Some authors take into account only the immediate **linguistic** and relevant **situational** context, while others all types of context. Those elements of the sentence which are context-independent feature generally a higher degree of communicative dynamism compared to context-dependent elements.

7.5 Semantics

From the point of view of FSP, the semantics is construed dynamically in regard to the contribution of the individual sentence elements to the communication of information. As far as the relationship between the context and the semantics is concerned, the former works against the latter, i.e. the context reduces the communicative dynamism of the semantic content. It should be noted that the English verb features a relatively low degree of communicative dynamism which is determined by the fact that the verbal meaning often requires to be semantically completed. Such a semantic completion is provided by the context-independent object having a higher degree of communicative dynamism than the verb itself because it expresses the goal of action, this being semantically more important than the action itself. Apart from the object, it is the adverbial phrase which completes the semantics of the verb. If it is obligatory, it expresses the direction of motion, comparison, or place of existence, and conveys a higher degree of communicative dynamism than the verb. The adverbial phrase thus has two potential functions within the FSP - thematic or rhematic. If it expresses the setting of the action, it is thematic, if it specifies the action, it is rhematic.

7.6 Sentence linearity

The relationship between word-order and FSP has already been analyzed by Mathesius. The word-order in English is affected by four major factors: grammatical principle, rhythm, FSP and emphasis.

7.6.1 Grammatical principle

It means that the position of a particular sentence element is determined by its grammatical function, i.e. by being the subject, predicate, object, adverbial, etc. Grammatical principle plays in English a much greater part in regard to word-order than in Slovak, because in Slovak the grammatical function of a word is, as a rule, indicated by its form, whereas in English it is not. In the sentence *John loves Mary* neither the noun *John* nor the noun *Mary* shows by their form that the former is the subject and the latter the object. From this it follows that owing to the simple morphological system of English, changes in word-order are very often unfeasible since they would involve a change in the grammatical function of the words concerned.

7.6.2 Rhythm

The rhythmic principle plays a significant role in English as well. It can be illustrated by such sentences as *The weather will change, said father* - as opposed to *The weather will change, he said*. It is obvious that the word order is here conditioned by rhythm, i.e. the first position is taken by the rhythmically lighter element: J. Vachek (1992) has it that if the three sentence elements in question (pronominal subject, finite verb, substantival subject) are arranged according to their rhythmical weight, there is an increase in weight in the sequence specified in the brackets. Another example is provided by phrasal verbs: if an object is expressed by a noun it is placed after the prepositional adverb: *He took off his hat*; if it is expressed by a pronoun, it comes between the verb and the adverb: *He took it off.* The object denoted by a noun is rhythmically too heavy so that if placed before the adverb it would push it too far from the verb.

7.6.3 FSP

The usual position of the theme of an utterance is the beginning of the sentence, whereas the rheme occupies a later position, i.e. we proceed from what is already known to what is a new piece of information. This ordering of theme and rheme is called by V. Mathesius **objective** since it focuses on the hearer. The reversed order is called subjective and is typical of emotionally colored utterances starting with what is the most important from the speaker's point of view. In English, thus, there are two basic tendencies that quite often work against each other: the fixed word-order (subject-verb-object) and the placing of the theme at the beginning of the sentence. One of the means by which English resolves this conflict is by resorting to the **passive construction.** This can be illustrated by the following example: let us assume a context within which a journalist interviews a representative who is in charge of the organization of a forthcoming conference. The interviewee is asked about who is going to attend the conference from abroad. The grammatical principle requires the following word-order: *The representatives of many international scientific institutions will take part in our conference*. However, it contradicts the requirement of "theme first". Therefore, the sentence must be put into the passive: *We will be visited by the representatives of many international scientific institutions*. Then, both criteria are fully satisfied - the sentence starts both with the subject and the theme.

7.6.4 Emphasis

Emphasis, or the **emotive principle,** is implemented by the deviation from the usual, grammatically "prescribed" word order. Sometimes the deviation pertains to the objective ordering of theme-rheme as well, which is understandable; emotive utterances emphasize the most important piece of information (this being usually a new one) as first. Thus, for instance,

the emphasis occurs if we answer the question *Where is John?* by *Home went John*. The most valuable information is put at the beginning, the expected word-order is violated, which is reflected in a very impressive effect of the sentence.

7.7 Prosodic features

In the spoken language, the prosodic features are an important factor of FSP. Most utterances are characteristic of congruence between the non-prosodic and prosodic features of FSP. The latter, as it were, give the final shape to the utterance and serve, in Firbas' words, as **disambiguators,** i.e. they help to correctly interpret an utterance. The above-mentioned congruence is violated in emotional utterances, i.e. the particular prosodic feature occurs at different places than we would expect in regard to the non-prosodic features. **L. Urbanová** (1985) treats **intonation** as the most important prosodic feature as follows: Intonation has two basic functions:

1) **Formal function,** that can be divided into:

a) **delimitation function,** that breaks up the utterance into self-contained units with their specific meaning
b) **grammatical function** specifying the mood of the utterance.

2) **Content function,** having four "layers":

a) **sentence layer,** delimited by the context, and mediating the content with regard to the hearer - based on this function the hearer decodes the content of the utterance as a **statement, question, command, answer, exclamation.**
b) **modal function,** mediating the content with regard to the extralinguistic reality - it expresses **possibility, probability, validity, significance** of the utterance.
c) **attitudinal function** - it mediates the content with regard to the speaker: it expresses **politeness, indifference, emphasis,** etc.
d) **informatory function** - it mediates the dichotomy of **known** vs. **unknown.**

As to the role of intonation in FSP, according to J. Firbas (1985), the non-thematic part of the sentence as a whole must be prosodically more conspicuous than the thematic part. The thematic part, however, can be prosodically intensified by contrast, additional meaning or prominence, and emotional coloring of the items. This applies to the transition as well.

Chapter VII

Structuralist Theories

1 GENERAL

Structuralism meant a new era in the development of linguistics. Its origin can be deemed to be a reaction to **atomism** of the linguistics of the preceding century in treating various linguistic issues, as well as a refusal of the overemphasis on the **diachronic method,** so characteristic of the approach of the preceding linguistic schools. Structuralism brought into linguistic research a new approach focusing on the **function** of linguistic units within the language system defined in general as a system of signs with their internal structural interrelations. It was stressed that language is a **social phenomenon,** the main function of which is the **communicative function.** Moreover, the importance of **synchronic** evaluation of facts was emphasized.

Though structuralism as a systematic theory arose in the first decades of this century, it had some predecessors. Mentioned should be **A. Marty** with his idea that the description of the contemporary language is to become the focal point of linguistic research, the English grammarian **H. Sweet,** the Danish linguists **R. Rask** and **O. Jespersen** (from the point of view of English linguistics, important are his works *Growth and Structure of the English Language, The Philosophy of Grammar, A Modern English Grammar on Historical Principles*). The idea of the language as a system with a relatively closed structure was expressed by the German linguist **G. von der Gabelentz.** Modern principles characterize the work of **J. Baudouin de Courtenay.**

Nevertheless, these isolated and sporadic progressive ideas were not taken into consideration by their contemporaries. And so the real origin of structuralism is connected with the name of **Ferdinand de Saussure** whose postulates turned out to be a starting point for all significant structuralist schools:

1. Geneva School (Saussure, Ch. Bally, A. Sechehaye)
2. Prague School (V. Mathesius, R. Jakobson, N. Trubetzkoy...)
3. Copenhagen School (L. Hjelmslev, V. Bröndall, K. Togeby)

Simultaneously with, though independently of, the European structuralism were built up the foundations of American structuralism (F. Boas, E. Sapir, L. Bloomfield...).

In the following paragraphs, we will briefly characterize the fundamental ideas characteristic of the individual schools, except for the Copenhagen school, whose theory,

called **glossematics,** could be characterized as an abstract logical-mathematical theory deviating substantially from other structuralist conceptions; its influence was much weaker compared to other contemporary schools owing to the rather complex and abstract character of the theory.

2 FERDINAND DE SAUSSURE AND THE GENEVA SCHOOL

2.1 General

In 1916, de Saussure's pupils published his series of lectures under the title *Cours de linguistique générale,* a work that turned out to be a landmark in the development of linguistics. The uniqueness of this posthumously published work was so extraordinary that its author came in for the designation "father of modern linguistics", or "Copernicus of linguistics". F. de Saussure is rightly considered to be one of the greatest linguists of all time. He was not only the founder of the-called Geneva school, but he also was the first to systematically outline a new conception of the approach to the issues of general linguistics. Therefore, he is considered to be the founder of structuralism in linguistics. The above-mentioned book was published three years after de Saussure's death by two of his students - later famous linguists - **Charles Bally** and **Albert Sechehaye.** They made use of their own notes as well as those of some other undergraduates who had attended de Saussure's courses in the period of 1907 - 1911.

The Course introduced into linguistics a number of new terms and concepts that, even after many decades, remain an inherent part of modern linguistic terminology and theories. To mention at least some of them: **synchrony, diachrony, langue, parole, langage, signifiant, signifié, phoneme, phonology, linguistic value, opposition, syntagma, syntagmatic, sign, model, economy of speech,** and many others.

2.2 De Saussure's semiology

F. de Saussure worked out a theory of semiology, a science that studies signs in human society. Out of many different systems of signs used by people, the most important is language. Hence, linguistics is a component part of semiology, this belonging to humanities. This was a new standpoint, different from prevailing tendencies aimed at the treatment of linguistics as a natural science. De Saussure defines language as a **system** of mutually **interrelated signs.** The **value** of each individual sign is determined by its meaning and by its relationships to other signs within the system. The system of signs is thus based upon the oppositions among the signs. Saussure conceives the linguistic sign (see also chapter V) as a connection of the phonic substance *(signifiant)* and the concept *(signifié)*. The terms *signifiant* and *signifié* are abstract notions mutually related in human consciousness by association. It follows that *the signifiant*

should not be conceived as a mere physical sound, but its reflection, or trace in our brain. The *signifié* is even more abstract. These both facets of the sign are inseparable and de Saussure compares them to two pages of a single sheet of paper: by cutting one of the components, the other is modified accordingly. It follows that when we hear a sequence of sounds, for instance *t-a-b-l-e,* we assign it by association the concept of a signified object. In fact, in the signified object (table) there is nothing inherent that would predetermine its signification exclusively by the above mentioned sequence of sounds. We know very well that the same concept (table) is assigned in different languages various sequences of sounds: *stôl i*n Slovak, *Tisch in* German, *stol* in Russian, *pöytä* in Finnish, or *tsukue* in Japanese. This fact enabled de Saussure to draw the conclusion about the **arbitrariness** of the relationship between the *signifiant* and the *signifié,* this becoming one of the crucial points of his theory of sign. The evidence is obvious - if the relationship between these two facets of the linguistic sign were inherent, there would exist a single language only.

The second important principle is that once established in speech community, the relationship between the *signifiant* and the *signifié* is **obligatory** for all members of the speech community.

Another important feature of the linguistic sign is its **linear character.** Utterances are "realized" in time, which means that two signs cannot occur concurrently. They must be ordered in sequence. This distinguishes language from visual signals that can be used concurrently, because they are set in space and not in time. The theory of the linear character of linguistic signs has its consequences for the approach to the issue of word-order, the relations between the signs occurring in the utterance, and for de Saussure's widely applied principle of **syntagmas.**

The third fundamental property of the linguistic sign is its **discontinuity** (discreteness). According to de Saussure's theory, the sound material of language is amorphous, just like everything in the extra-linguistic reality. De Saussure compares it to an undifferentiated nebula. A linguistic sign thus results from connecting a concrete sequence of sounds of a particular language with a concrete and delimited segment of the "nebula". It means that while the extra-linguistic reality is recorded in our consciousness as a **continuum** (i.e. it is characterized by continuity), the linguistic sign always circumscribes its specific segment. Various languages can differently segment out the "nebula", because the delimitation of the concepts is the matter of linguistic signs and not the matter of extra-linguistic reality (see, for instance, the differently analyzed continuum of colours in various languages, the existence of the term *cousin* in English as opposed to differentiated terms in Slovak, etc.).

2.3 Language as a system

We have already mentioned that de Saussure conceives the language as a **system of signs.** In addition, it is the result of the universal human ability of speech; it is arbitrary and socially conditioned. Therefore, it is a supraindividual, abstract and hierarchical system of signs, their interrelations, values and combinatory possibilities. De Saussure explained the fundamental principles of language by comparing it to the game of chess:

1. The value of individual pieces depends on their position on a chessboard, just like the value of each element in a language is determined by its opposition to all other elements.

2. The system (situation) is always temporary and changes due to the changes in the position of the pieces.

3. The transition from one state of balance to another state of balance (or, linguistically, from one synchrony to another one) results from moving a piece. That means that:

a) Each move on a chessboard is executed by a single piece; analogically, changes in language apply to isolated elements.

b) In spite of this fact, the move is projected onto the situation in the whole system, and the consequences cannot be foreseen. A move can change the situation in a fundamental way, or it has no effect on the situation. The same applies to the changes in language.

c) The move of a piece (language element) is not important. What is important is the former and the subsequent situations. It is not important how the existing state of affairs in chess or language has been achieved. What matters is the existing synchronic situation.

De Saussure distinguished between **syntagmatic** and **paradigmatic** relationships existing between signs. The value of each linguistic sign is determined by its relationship to other signs within an utterance (syntagmatic), and by its relationship to other signs that could replace it in its position (paradigmatic relationships - de Saussure himself used the term “associative”).

2.4 Diachrony and synchrony

The dichotomy **synchrony - diachrony** has taken probably the central position within the whole conception of de Saussure, and affected linguistics in the following decades. On the other hand, not all linguists have understood properly the real intention of de Saussure and argued against the strict separation of these two aspects of linguistic research. The misinterpretation of the idea leads some linguists to blame Saussure for turning his back upon the history and neglecting its importance. However, this is a distortion of his attitudes. As a lecturer, he was dealing mainly with diachrony. He, however, soon realized that mixing up facts of various periods (i.e. of various idiosynchronies) or even diachronic and synchronic facts means the mixing up of facts of different systems, which, as a matter of fact, obscures all these systems.

The basic idea upon which Saussure's conception of synchrony is based is the linguistic situation in the particular period specified by a consistent and functional system that, in each historical period, is different and closed. And since it is not possible to completely reconstruct any of previous states, the facts of several states merging together (diachrony is a number of subsequent states differing from one another by various changes), de Saussure speaks of the distinction between diachrony as non-grammatical, and synchrony as grammatical. De Saussure's position reflected his negative attitude to the previous period of Neogrammarians whose methods can be characterized as atomistic and fully diachronic.

2.5 Langue/parole

Another de Saussure's dichotomy that strongly influenced the linguistics of this century is represented by his theory of the opposition **langue/parole.** Apart from these terms, de Saussure distinguishes a third term - **langage.** *Langage* is for him a general human ability. It is only *langage* that features universal ability as opposed, for instance, to animals - to create in language a system of signs that is not inherited. Owing to the multiplicity of languages serving necessarily the same purpose of communication, and denominating basically the same reality, it is obvious that each of these languages is, in this sense arbitrary; it is a result of a complex and long historical development in space and time.

Langue is then a system of all rules that must be observed by all speakers of the community; it is an abstract system of conventional rules that are generally recognized by all speakers of the particular language. It is only this system that enables individuals to communicate with one another and to understand one another. *Langue* is thus a property of the society, it is a social phenomenon.

On the other hand, *parole* is an individual phenomenon. It is a concrete manifestation of *langue* uttered by an individual in a given moment. A concrete utterance can be, however, based only on the comprehension and observance of the rules of the system of language.

De Saussure points out that *langue* and *parole* are completely different things. Individual spontaneous acts of speech are necessarily fugitive and tied to particular contexts of utterance. They may contain 'errors', like 'slips of tongue', and will almost certainly contain hesitations, false starts, sentences broken off halfway through, and other familiar characteristics of informal speech. De Saussure claims that data of this sort do not constitute an appropriate object of study since they are inherently idiosyncratic and influenced by too many extraneous factors, psychological, social and individual. It is not homogeneous enough to constitute the data for a systematic study of the language system, since the accidental features associated with speech

production must be characteristic of the use of language, *parole,* and cannot be attributed to the system, *langue,* itself. Hence, linguists are supposed to ignore such features and seek to identify the system behind them. This system is the proper object of a linguistic study since, unlike *parole*, it is a well defined object in the heterogeneous mass of speech acts, an object which is relatively stable.

It should be noted that a similar distinction was also proposed by **N. Chomsky's** (1965) opposition between **competence** and **performance.** Competence, the language system, corresponds roughly to de Saussure's *langue,* and performance, the use of the system, to *parole.* Like de Saussure, Chomsky claims that the study of performance, the use of the system, can logically only follow the study of competence, the system itself.

3 THE PRAGUE SCHOOL OF LINGUISTICS

3.1 General

In 1926, a group of prominent linguists established the **Cercle Linguistique de Prague,** later known as **The Prague School of Linguistics.** Its most outstanding personalities were V. Mathesius, B. Havránek, J. Mukaľovský, B. Trnka, J. Vachek, a group of Russian linguists R. Jakobson, N. Trubetzkoy, S. Karcevskij, A.V. Isaenko and others. Their first public presentation took place at the 1st International Congress of Linguists in Haag in 1928, and since 1929 the Circle has published *Travaux du Cercle Linguistique de Prague.*

The Prague School of Linguistics has at least two features in common with other structuralist schools: divergence from the Neogrammarian methods, which tended to the psychologization and atomization of linguistic reality, and the tendency to establish linguistics, looked upon by the older schools as a conglomerate of psychology, physiology, sociology and other disciplines, as an independent science based on the concept of the linguistic sign. Otherwise, the structuralist schools differ considerably from one another in their principles and techniques, which is reflected in special designations for each of them, viz., **functional linguistics** for the Prague School, **glossematics** for the Hjelmslevian linguistics, and **descriptivism** for the Bloomfieldian approach.

As regards the Prague structuralism, its development was prepared partly by **J. Zubatý** with his anti-mechanistic views, partly by **V. Mathesius** (and his pupils B. Trnka and J. Vachek), who were interested in establishing new and more precise methods in both synchronic and diachronic linguistics. The Russian members were influenced by **Šachmatov** and **Ščerba**, as well as by F. de Saussure.

3.2 Thesis

In 1929, the Circle published *Theses submitted to the first Congress of Slavonic Philologists* in which the basic principles and tasks for research were specified. The Theses contain all basic principles characteristic of later works of the Prague School:

Language is conceived as a **system of expressive means and** serves for **communication.** Therefore, it is necessary to investigate the particular **functions** of language as a system and its components. Language is, moreover, a concrete physical phenomenon depending to a high degree upon **external** (non-linguistic) **factors.** That is why it is necessary to distinguish between the language of a particular culture in general and the language of literature, between the language of science and that of newspapers, the language of the street and that of administration,

etc. Language encompasses intellectual and emotional expression of human personality. Also, these aspects in their relation must therefore be taken into account in linguistic research. The **spoken** and the **written** forms differ from each other by their peculiarities which must be studied by linguistics. The centre of gravity of linguistic investigation must be based on the **synchronic approach.** However, it does not mean that diachrony should be refused. Its purpose must consist of examining the language as a system in development. It cannot be applied to isolated linguistic phenomena only. This applies also to the **comparative method.** It should be used for the sake of working out a language typology describing various types of language **structures.** The **phonological research** should focus on the specification of **phonological oppositions** in languages. Morphological phenomena should be treated in relation to the phonological ones. The research of the role of phonemes within the morphological system led to the establishment of a new branch in linguistics, the so-called **morphonology** (or morphophonemics, or morphonemics).

3.3 Phonology of the Prague School

No doubt, the field in which the Prague School achieved the most remarkable results is phonology. The main principles have been explained in Chapter III.

3.4 Morphology of the Prague School

In his well-known paper *Zur Struktur des russischen Verbums*, **R. Jakobson** (1932) attempted at the application of the phonological theory of privative oppositions to the morphological level. He finally drew a conclusion that there is a significant difference between phonological and morphological oppositions. Members of phonological privative oppositions differ by the presence or absence, respectively, of one feature, while all other features are in common. On the other hand, morphological privative oppositions are characterized by the fact that the marked member implies the unmarked one, which, however, does not apply vice versa. The unmarked member is neutral in regard to the marked one. Thus, for example, in the English category of gender, the feminine gender is marked (if a corresponding form exists) because, with respect to persons, it exclusively denotes females only. On the contrary, the masculine gender is an unmarked member of the opposition, because it does not specify the person from the point of view of sex. It is in this respect neutral: *host* (can refer both to male and female) - *hostess* (only female), *murderer* (can refer both to male and female) - *murderess* (only female), etc. Jakobson's conception of morphological oppositions refers to the meaning of the members of opposition, but in the majority of cases it is also supported by a formal feature (in the above examples the

suffix -*ess*). Jakobson believes all categories to be built on this principle. Categories containing more than two members are transformed into several binary oppositions.

From among other members, it was **B. Trnka** who dealt with general issues of morphology. A good review of Trnka's linguistic approach is given in his *Studies in functional linguistics* (1988). Trnka is the author of the term **morphological exponents,** that covers all formal means fulfilling a morphological function.

He distinguishes four morphological exponents:

a) phonological (e.g. *sing - sang - sung*)

b) synthetic (*re-work, day-s*)

c) analytic (*I have written*)

d) composite (groups of words).

Generally speaking, according to the representatives of the Prague School, the morphological level is constituted by the word and the morpheme. The word is defined as a minimum meaningful unit implemented by phonemes and capable of transposition in the sentence. The morphemes are minimum meaningful segments of the word (e.g. *hand-s, hand-y, might-i-er*). Leaving aside the formation of words, the role of structural morphology is

1) to state morphological oppositions (e.g. those of number, common case - adnominal case, etc., in English) and their neutralizations (e.g. the neutralization of the opposition *genitive - accusative* of masculine nouns denoting living beings in Slovak, etc.).

2) to state the phonemic means (often homonymous) implementing morphological oppositions of a language such as prefixes, suffixes and alternations of phonemes (so-called morphonemics).

The Prague functionalists underline the necessity to describe the morphological structure, as any other, of a given language as it really is, without forcing it into the traditional categories of Latin grammar, as it used to be fashionable before and also thereafter. The comparison of languages cannot be based upon mechanical application of the grammatical rules of any language or any state of the same language. Thus, the so-called **parts of speech** of Latin grammar cannot be viewed as *a priori* classes of words which must have their parallels in every language. As to the relationship of morphology to syntax, both disciplines are viewed as two different levels of structural analysis. Morphology is concerned with the analysis of word, whereas syntax is mainly the analysis of sentences into their constituent relationships (e.g. subject - predicate, etc.). Morphology and syntax represent two different levels of grammatical abstraction necessary for the analysis of linguistic material.

3.5 Syntax of the Prague School

The field of research in which the representatives of the Prague School achieved worldwide recognition is functional syntax, specifically, the theory called **Functional Sentence Perspective** that contributed to the explication of elementary questions of sentence make-up. It is also related to sentence semantics. We dealt with the theory in Chapter VI.

3.6 Vilém Mathesius

V. Mathesius was one of the most remarkable and most influential personalities of the Prague School, both as to the organizational matters and the establishment of fundamental theoretical principles that gave an impetus for the development of the conception of functional structuralism. Originally dividing his interest between English literary history and general linguistics, since the early nineteen-twenties, he concentrated more and more on the study of language.

3.6.1 On the Potentiality of the Phenomena of Language

Mathesius was one of the pioneers of the synchronic approach to facts of language, an imposing specimen of which can be found already in his 1911 treatise ***O potenciálnosti jevů jazykových*** (On the Potentiality of the Phenomena of Language). This text was significant for the later constitution of the conception of the Prague Linguistic Circle based on functional and structural principles. The importance of the text was recognized many years later. As mentioned by **J. Vachek** in (1970), **R. Jakobson** believed that if this work had appeared in 1911 in Moscow, a centre of linguistics in these years, it would have brought about a linguistic revolution. **Ch. Hockett** expressed in 1964, when talking to J. Vachek, an idea that it was simply fantastic how Mathesius could have worked out such a conception as early as 1911. Mathesius simply outran his times, and therefore he was not understood for many years.

The first important aspect of his work was that concerning the **synchronic,** non-historical approach (he himself used the term "static" as opposed to "dynamic" under which he understood the diachronic method). As to the English linguistics, it was not a completely new approach, as some tendencies in applying this could be met in the works of **H. Sweet** and **O. Jespersen.** Nevertheless, within Czech conditions, it was something completely new.

Secondly, even more important about his work was the term **potentiality** which was conceived by Mathesius as synchronous oscillation of speech in the particular language community. It follows that the term of *static* in language research cannot be taken literally, i.e., the state in the language is not considered by Mathesius as unchanging; it oscillates, there are

some alterations within the given boundaries. This oscillation is a precondition for the development of the language itself. In Mathesius' view, there are some **tendencies** in the language itself, which, though not being so constant as physical laws, are obvious and can be **statistically** represented. The emphasis on statistical evaluation was another contribution of Mathesius at the outset of the century. When, for example, Mathesius applies his premise about the tendencies in language, he stresses that, e.g. the independence of the word in language is and remains a linguistic fact, though it is sometimes manifested only as a tendency, that is to say, it is not constant under all circumstances.

Another important point in his work was that he was convinced about the procedure from statics to dynamics being the most reliable in linguistics.

There was only one thing in which Mathesius' conception had to be modified by himself in later decades - the exaggeration of the role of an individual in language use.

3.6.2 Other works

Mathesius worked out the method of **analytical comparison** (anticipating by decades what is now termed **contrastive analysis of language**), which he applied, in numerous writings, to English and Czech. Out of his more than 300 writings the best known were to become two posthumously published books, ***Čeština a obecný jazykozpyt*** (1947), and *The Functional Analysis of Present Day English on a General Linguistic Basis* (1975). In the latter of the books, which originally appeared in a Czech version (1961), language is conceived as a system of the means of expression, a system of signs, manifested in actual communication as the sum total of the possibilities available to the members of the same speech community at a given time in a given place, for the purpose of communication through speech, and identifiable from their realizations in particular utterances.

In the book, Mathesius distinguishes two levels of the description of language, based on the **encoding stage** of the process of communication. The first level is called **functional onomatology** and corresponds to the first stage of encoding: the content of thought is subjected to selective analysis which provides the elements capable of being denominated by language - hence, functional onomatology is the study of the naming units. The second level is represented by **functional syntax:** after the elements capable of being denominated have been selected, they must be brought into mutual relations in the act of sentence formation, this process constituting an utterance. It means that the functional syntax is the study of the means by which naming units are brought into mutual relation. Across both of these parts runs morphology,

which is concerned with the linguistic forms arranged into systems according to formal criteria.

3.7 Josef Vachek

When speaking about the Prague School one cannot but talk about Josef Vachek whose name is indispensably connected with linguistic achievements as well as propagation of the results of the Prague School. He became one of the most prominent and world-recognized representatives of Czechoslovak post-war linguistic scholarship.

As early as in the fifth term of his University studies, Vachek became secretary to the Prague Linguistic Circle and shortly afterwards even a virtual member of the Circle. Vachek lectured on the results of his research at numerous universities abroad. At the same time, he developed the progressive ideas of the pre-war Prague Linguistic Circle. In post-war years, he became one of the leading figures of the Prague group, the teaching of which he made accessible to a wide scholarly public in a triad of books commonly associated with his name: *Dictionnaire de linguistique de l'Écale de Prague* (1960); A *Prague School Reader in Linguistics (1964);* and *The Linguistic School of Prague* (1966). Furthermore, a good review of Vachek' linguistic thinking is provided in the publication *Selected Writings in English and General Linguistics* (1976).

Vachek's pre-war interests were chiefly focused on phonology. Significant is his contribution to the inquiry into the concept of the **phoneme.** He defines the phoneme as a member of the complex phonological opposition, a part which may be dissociated into simultaneous, but not into successive phonological units. By simple phonological opposition, Vachek understands a minimum phonic opposition capable of serving, in the given language, for the differentiation of intellectual meanings, whereas by a complex one, he understands a non-minimum phonic opposition of analogous capacity. A phonological unit is defined by him as a member of a simple phonological opposition. Vachek's term **phonological unit,** in fact, covers what is nowadays called "distinctive feature".

Mentioned should be Vachek's great contribution to **historical phonology.** He concentrated his attention on phonemes that are not fully integrated in the phonetic system or exhibit a very low functional load. He rightly finds that the existence of such phonemes bears out the fact that language is not a closed, fully balanced system. His detailed analysis of **peripheral phonemes** threw new light on a number of vexed problems of the historical development of English.

After the war, it was the syntactic problems that attracted Vachek. At least some of them should be mentioned.

In his dissertation on *General Negation in English and Czech,* he showed that in regard to positiveness and negativeness, the English verb is neutral, becoming positive or negative only after its incorporation in a context. He revealed the reason for the existence of simple negation in English, taking into consideration both external and internal factors.

Vachek also paid attention to the issues of **complex condensation** in English, and explained the questions of complex condensation in regard to the greatly reduced dynamism of the English finite verb form.

Important is his elucidation of the status of the **Possessive Case** in ModE. One of the most outstanding contributions is his idea that it is necessary to regard the analytical trend of English not as a merely morphological issue but rather as a principle which, though manifested mainly on the grammatical level, affects all planes of the language.

Vachek pointed out that language is a complex system comprising a number of subsystems or levels, each of which has its own particular structure and consequently its own specific structural problems. It often happens that a change effected in one subsystem has repercussions in the other subsystems.

Vachek paid a good deal of attention to the problems of **written language** (e.g. in the monograph *Written Language* 1973), emphasizing that the written form of language is in no way only a mere appendage of spoken language, because it has its specific functions and means of expression.

4 AMERICAN DESCRIPTIVISM

4.1 General

Linguistics in the USA was strongly influenced in the 20th century by the existence of hundreds of previously unrecorded languages existing in North America. Since the publication of the *Handbook of American Indian Languages* in 1911 by **Franz Boas,** almost every linguist in America has, until very recently, included some original research on one or more of the American Indian languages as part of his training; and many of the features characteristic of American linguistics can be explained by this fact. This background gave the American linguists their practical orientation, which was reflected in the development of the so-called **field methods** - techniques for the recording and analysis of languages which the linguist himself could not speak and which had not previously been committed to writing. The outline of the method was given by **Franz Boas,** who came to the conclusion that the range of variation to be found in human languages was far greater than one might suppose if he based his generalizations upon the grammatical descriptions of the more familiar languages of Europe. The Latin or Greek-based descriptions of grammar are simply not appropriate for all languages. It is not necessary for all traditional categories to be present in all languages, for instance, the distinction between singular and plural is not obligatory in *Kwakuitl*, and the distinction between present and past tense is not made in *Eskimo*, etc. These facts led Boas to draw the conclusion that it is the task of the linguist to discover for each language the categories of description appropriate to it. This view is generally called **structuralist.**

Another idiosyncrasy of American structuralism is closely related to the first one - it was deeply interested in **anthropology** and **ethnography.** The study of American Indian languages was not limited to the languages themselves, but attention was also paid to the life, habits and "behaviour" of Indian tribes.

The Indian languages had not been recorded in a written form. Hence, the research had to be restricted to their contemporary stage of development. It was probably the main reason for the lack of interest in the diachronic method. It is thus characteristic of the American descriptivism that while the 19th century was characterized by one extreme - almost exclusive application of the diachronic method - the American linguists moved to the opposite extreme - they made use of the synchronic method only.

Another important peculiarity bears on the concentration on the **form.** The meaning, especially the lexical meaning, was generally disregarded.

One more feature of the American linguistics deserves our attention, i.e. the orientation to **mathematical methods** in linguistics, the effort to **formalize** the analysis of language, and to develop various **models** of grammatical description (see chapter IV).

4.2 Edward Sapir

E. Sapir was, along with L. Bloomfield, the founder of American structuralism. He was strongly interested in **anthropology** and **psychology** and paid much attention to **American-Indian languages.** The scope of his linguistic research was vast and was not limited to language as such. He emphasized its close relation to human **culture.** He conceived language as an acquired cultural function rather than an inherent biological function, thus reflecting the role of society in the development of language: "Eliminate society and the individual will never learn to talk" (1921, p. 22).

Sapir dealt with the relationship between language and extra-linguistic reality, language and thought, etc. All this made him one of the founders of **ethnolinguistics.**

Sapir defines language as a conventional, arbitrary system, as a purely human and non-instinctive method of communicating ideas, emotions and desires by means of a system of voluntarily produced symbols. Language and our thoughts are inextricably interrelated, and are, in a sense, one and the same. Hence, the opinion that a man can think, or even reason, without language is an illusion.

Sapir conceives language as a system of **symbols** (i.e. signs in modern terminology). A speech sound attains linguistic significance by being associated with some element or a group of elements of experience; this element is the content or meaning of the linguistic unit. It follows that Sapir, just like Saussure, conceived linguistic signs as bilateral units having form (speech sounds) and meaning (elements of experience). He highlights the role of generalization in the process of denomination when he maintains that the world of our experience must be enormously simplified and generalized into a **symbolic inventory,** whereby the concept serves as a convenient capsule of thought that embraces thousands of experiences.

Sapir came to realize the place of the **phoneme** in language theory. He assumed that every language is characterized by its ideal system of sounds that can be brought to consciousness as a finished pattern, a psychological mechanism. For the classification of speech sounds, Sapir offers four criteria:

1. position of the vocal cords
2. passage of breath through the mouth or nose
3. free or impeded passage

4. precise points of articulation.

This scheme is, in his view, sufficient to account for all the sounds of language.

Sapir also dealt with **grammatical** issues. He distinguished six main types of **grammatical processes:**

1. **Word order** as the most economical method of conveying grammatical meaning - juxtaposing two or more words in a definite sequence;

2. **Composition** – the uniting into a single word of two or more root elements;

3. **Affixation** as the most frequently employed of all grammatical processes. Here he distinguishes prefixes, suffixes and infixes, and points out that in some languages (e.g. Indian language Nootka) suffixes may have as concrete a significance as the root element itself;

4. **Internal modification** entailing vocalic or consonantal change that, in some languages (e.g. English) indicated fundamental change of grammatical function;

5. **Reduplication** as a repetition of all or part of the root element;

6. **Variations in accent**, whether of stress or of pitch.

It should be noted that this classification mixes up several points of view and, therefore, is rather inconsistent.

He emphasizes the **psychological** validity of the **word,** which is illustrated when a native Indian, quite unaccustomed to the concept of the written word, can dictate a text to a linguistic student word by word.

Sapir distinguishes **formal** and **functional** units. Radical (or grammatical) elements and sentences are the primary functional units of speech. Words, in contrast, are the actual formal units of speech that may on occasion identify themselves with either of the two functional units. Sentence is the major functional unit of speech, it is the linguistic expression of a proposition. Important is Sapir's idea that underlying a finished sentence is a living sentence type, of fixed formal characteristics, which means that many sentences can be formed in relation to the same fundamental **sentence pattern.**

Sapir conceives language as a **dynamic system** which is in a constant process of change: "The feeling that our language is practically a fixed system is fallacious" (1921, p.155). The development of language brings about a gradual change of morphological type as well as changes of grammatical classes and word significances. He speaks about the so-called **drift** of languages and linguistic features. The changes in language begin as individual variations. A new feature may exist as a mere tendency in the speech of the few until it becomes part of the common, accepted speech. Within the drift of language, a special position is taken by phonetic

laws or phonetic changes that represent, first of all, a movement toward particular types of articulation rather than a particular set of sounds.

Analogy is a major force for regularizing irregularities. In his work Sapir paid attention to differences among individual users of a language. In this connection, he stressed that "individual variations are swamped in or absorbed by certain major agreements" (1921, p. 147), i.e. the speech habits of a language community are dominated by the **norm,** by the consensus of usage.

4.3 Leonard Bloomfield

L. Bloomfield was the most outstanding representative of American structuralism. He published a number of articles and books, the most important of them being *Introduction to the Study of Language* (1914), *A Set of Postulates for the Science of Language* (1926), but first of all *Language* (1933), which influenced several generations of American linguists. The book long remained unsurpassed as an introduction to linguistics and it determined the attitude and outlook of American linguists during the thirties and forties. The book is still considered by many to be the most important general treatise on language ever written.

Bloomfield's main goal is to put linguistics on scientific footing by replacing speculation with **scientific induction** which provides the only useful generalizations about language. "Scientific" implies the deliberate rejection of all data that were not directly observable or physically measurable. The methods of linguists, in his view, should resemble those of natural sciences. The ideal use of language is seen in mathematics thanks to its denotational accuracy. Though he disavows the dependence upon any psychological doctrine, the influence of **behaviorism** is evident. His approach is **mechanistic** (i.e. materialistic) directed to explaining different kinds of cause-and-effect sequences. Speech is conceived as a set of substitute stimuli alongside practical stimuli such as hunger. Bloomfield makes use of the basic behavioristic scheme S - R (a stimulus that brings about a reaction): language enables a person to make a reaction when another person has the stimulus. His well-known illustration is as follows: Jack and Jill are walking down a lane. Jill is hungry, sees an apple, and makes a noise with her larynx, tongue and lips. Jack vaults the fence, climbs the tree, takes the apple, and brings it to Jill, who eats it. The scheme of the story is

S → r ….. s → R

The speech act (r) as a reaction to Jill's hunger (S) is a substitute stimulus (s) for the reaction of Jack. Linguistics should deal with the mediating part of the scheme (r … s).

It was mainly under the influence of Bloomfield that American structuralism focused on **formal analysis,** leaving the meaning facet aside. For Bloomfield, the meaning of a linguistic form is the situation in which the speaker utters it and the response which it calls forth in the hearer. Bloomfield emphasizes the elusiveness of meaning. The analysis of meaning is, in his view, the weak point in language study, which is related to the limited human knowledge. The reason for his pessimism lies in his conviction that a precise definition of the meaning of words presupposes a complete "scientific" description of the objects, states, processes, etc., they refer to (i.e. for which they operate as **substitutes**). This attitude of Bloomfield could not but discourage linguists from the study of meaning. And neither he nor his followers made any positive contribution whatsoever to the theory or practice of semantics. Semantic considerations were strictly subordinated to the task of identifying the units of phonology and syntax, and were not involved at all in the specification of the rules or principles governing their permissible combinations. This part of the grammar was to be a purely **formal study,** independent of semantics.

On the other hand, Bloomfield assumes that each linguistic form has a constant and definite meaning, different from the meaning of any other linguistic form in the same language. If the forms are different, the meanings are also different; this assumption is then reflected in his denial of the existence of actual synonyms.

Bloomfield's important contribution lies in the field of **phonological theory.** For him, the description of a language begins with phonology. He accounts for the importance of the notion of **phoneme** by the fact that speech-sounds are infinitely complex and infinitely varied. Only the phonemes of a language are relevant to its structure. What is important is the **distinctive features** of phonemes that unmistakably distinguish the phonemes from one another. Bloomfield divides phonemes into **primary phonemes,** the basic stock, and the **secondary phonemes,** appearing only in combinations, such as stress and pitch. Thus, in English, when we combine several simple elements of speech into a word of two or more syllables, we always use a secondary phoneme of stress which consists in speaking one of these syllables louder than the other or others: in the word *foretell* we speak *tell* louder than the *fore*, but in *foresight* the *fore* is louder than the *sight*. The noun *contest* has the stress on the first syllable, the verb *contest* on the second. Features of pitch appear in English as secondary phonemes chiefly at the end of sentences, as in the contrast between a question (*at four o'clock?*) and an answer (*at four o'clock*). The secondary phonemes are harder to observe than primary phonemes, because they occur only in combinations or in particular uses of simple forms (e.g. *John?* in contrast with *John*).

The status of the primary phoneme can be delimited by **substitution,** i.e. by altering any one of the parts of the word. Each replaceable part must constitute a phoneme. For instance, *pin* is contrasted with sets like *sin - tin - fin*, *pen - pan - pun*, and *pig - pill – pit* to reveal exactly three phonemes.

Bloomfield's two top categories are **grammar** and **lexicon.** They are complementary. Lexicon is the total stock of morphemes in a language, while grammar is for him the **arrangement** of morphemes. Lexical form has a meaningful grammatical structure, and in any actual utterance, it has a grammatical function defined by the positions in which a form can appear in any utterance. But the status of grammar and lexicon is not equal. The lexicon is for him only an appendix of grammar and a list of basic irregularities, which reminds us of Chomsky's later stance to lexicon. The minimal unit of grammatical structure is the **morpheme,** its meaning is termed the **sememe.** Linguistic forms can be either free or bound. **Free forms** can be spoken alone, **bound** ones cannot. The linguistic form that cannot be further divided into smaller parts is the morpheme. It is called the **ultimate constituent** of every complex form. A morpheme can have several **allomorphs.** A set of related inflected forms constitutes a paradigm. As opposed to the lexicon that is characteristic of irregularities, a morphological set of forms is regular.

Bloomfield introduced the principle of **immediate constituents.** Any complex form can be fully described (apart from its meaning) in terms of the immediate constituents. The basic principle of the method is the division of each complex form into its two, lower-level, constituents (binary principle). Thus, the immediate constituents of *Poor John ran away* are the two forms *poor John* and *ran away*; each of these is, in turn, a complex form; the immediate constituents of *ran away* are *ran*, a morpheme, and *away*, a complex form, whose constituents are the morphemes *a-* and *way*; the constituents of *poor John* are the morphemes *poor* and *John*.

Another important unit for Bloomfield is the **word,** which constitutes the smallest unit, being a free form. The principle that a word cannot be interrupted by other forms, holds almost universally, though there are some exceptions to the principle (e.g. phrasal verbs in English). He distinguishes **primary words** consisting of a single morpheme such as *man, boy, cut, run, big,* or containing more than one bound form: *re-ceive, de-ceive, con-ceive*, and **secondary words** (compounds and derivations). While morphology deals with the construction of words, syntax deals with the construction of phrases. Morphological constructions are those in which bound forms appear among the constituents. Syntactic constructions are those in which none of the immediate constituents is a bound form. He distinguishes **endocentric** and **exocentric constructions,** according to whether a construction belongs to the same form-class as any of

its immediate constituents. The majority of constructions are endocentric, and these can be divided into two groups: **coordinative** (e.g. *boys and girls*) - the construction belongs to the same form-class as the constituents, and **subordinative** (e.g. *very fresh milk*), where only the **head** of construction meets the requirement. Exocentric constructions can be exemplified by *John ran*, because this construction, as a whole, in neither a nominative expression (like *John*) nor a finite verb expression (like *ran*). The resultant phrase does not belong to none of the form-classes of its constituents.

In grammar he distinguishes four kinds of meaningful arrangements:

1. **Order** is the succession of constituents; The significance of order appears strikingly in contrasts such as *John his Bill* vs. *Bill hit John*. On the other hand, **Bill John hit* is not an English form because the grammar of English does not permit this type of arrangement. Similarly, *play-ing* is a correct form, but **ing-play* is not.

2. **Modulation** is the use of secondary phonemes (see above).

3. **Phonetic modification** is a change in the primary phonemes, for instance, when the forms *do* [du:] and *not* [nɔt] are combined into a complex form *don't,* the [u:] of *do* is replaced with [əu] add the suffix *-ess* with the meaning 'female' to *duke* [dju:k], the form *duke* is modified into *duch-* [dʌtʃ].

4. **Selection of forms** is controlled by certain classes. Different forms in what is otherwise the same grammatical arrangement will result in different meanings. The meaning of a complex form depends on the selection of the constituent forms. Thus, *drink milk* and *watch John* name actions, and are infinitive expressions, but *fresh milk* and *poor John* name objects and are substantive expressions. The second constituents, *milk* and *John*, are the same in both cases. The difference depends upon the selection of the first constituent. By virtue of this difference, the forms *drink* and *watch* belong to one English form-class (that of 'transitive verbs') and the forms *fresh* and *poor* to another (that of 'adjectives').

The **sentence** is defined as a linguistic form occurring in **absolute position,** i.e. as an independent form not included in any larger form. It means that it includes but cannot be included. Even a word or two (like *John!*, or *Poor John*) can be a sentence. Certainly, a form which in one utterance figures as a sentence, may in another utterance appear in **included position.**

An important role in grammar is assigned to **substitution.** A substitute is a linguistic form that replaces one of a class of linguistic forms. Substitutes are often short words. Their meanings are more abstract, simple and constant than the meanings of ordinary linguistic forms.

Bloomfield, just like Sapir, conceives language in its **development.** At any one stage of a language, certain features are relatively stable and others relatively unstable. Bloomfield emphasizes phonetic changes that are independent of non-phonetic factors such as the meaning. He believes that the general processes of change are the same in all languages. The changes are caused by both **internal linguistic factors,** such as avoidance of homonymy, simplification of sound clusters, dissimilation of sounds, or preservation of semantically important features; and **external factors.** Attention is paid to the **written form** of language, which is, in his opinion, not a language, but merely a way of recording language by means of visible marks.

All in all, the main goal of his linguistic effort was a perfect **description** of language (hence descriptivism as a designation of the American branch of structuralism).

Chapter VIII

Transformational and Generative Grammar

1 GENERAL

Two main streams dominate the linguistics of the 20th century. The first is **structuralism** represented by the Geneva school, the Prague school, the Copenhagen school and the American form of structuralism, called descriptivism. The second stream of linguistic thinking is inseparably connected with the name of **Noam Chomsky** whose work meant a fundamental break-through in the development of linguistic theory in the second half of the century. Chomsky, a rationalist to the core, repudiated behaviorism in linguistics (so typical of the beginnings of the American descriptivism) and structural linguistics as such for their relying unduly on induction, for basing their procedures on mere static segmentation and classification of items, characterizing the structural linguistics as taxonomic (meaning that linguists, in Chomsky's opinion, had not tried to explain linguistic phenomena; they had just observed and described them). Chomsky pleads for a dynamic approach as represented by his theory of transformational and generative grammar. Chomsky thus turned away from "modem linguistics" of his times and turned to earlier sources such as **Panini, Plato** as well as philosophers **Descartes, Diderot, Humboldt.** It should be noted, however, that he must have been inspired by his teacher **Z. Harris** whose roots stem from structuralism, although he had outlined the concept of transformational relation between two or more actual sentences.

Chomsky emphasized that linguistic theory is **mentalistic,** concerned with discovering a mental reality underlying actual behaviour. Linguistic theory should contribute to the study of human mental processes and intellectual capacity. The aim of transformational and generative (TG) grammar was higher than that of any other previous group of linguists. Chomsky called for the grammar of a particular language to be supplemented by a **universal grammar.** The main task of linguistics must be to develop an account of linguistic **universals,** i.e. principles valid for all (or the majority of) languages. The description of a language should pertain to the linguistic **competence** of a **native speaker.** Linguistic theory must be, however, concerned primarily with an **ideal speaker-hearer** in a completely homogeneous community, who knows his language perfectly, and is unaffected by such grammatically irrelevant conditions as memory limitations, distractions, shifts of attention and interest, and errors in applying knowledge of language in actual **performance.** He thus draws a distinction between the competence, the speaker-hearer's knowledge of his language, and the performance, the actual

use of a language in concrete situations. Only under the idealization of the speaker-hearer is performance a direct reflection of competence. Therefore, Chomsky introduces a system of **rules** that embody the **creative capacity** of a native speaker-hearer to **generate** or produce and to understand an infinite number of sentences (all and only the grammatical sentences of the language). This capacity of a speaker-hearer is based on universal innate structures that enable a child to comprehend the particular language system.

Linguistic theory should be concerned with the justification of grammars: to decide whether a particular grammar is the best one possible for the data. He concludes, however, that this goal - the formulation of a **decision procedure** - is too ambitious. Hence, linguistic theory should provide at least criteria (an **evaluation procedure**) for choosing between alternative grammars. In other words, we cannot hope to say whether a particular description of the data is correct, in any absolute sense, but only that it is more correct than some alternative description of the same data.

Chomsky's most original, and probably his most enduring, contribution to linguistics is the **mathematical** rigour and precision with which he formalized the properties of alternative systems of grammatical description.

Thus, the important term **generative** has, in fact, two meanings for Chomsky. On the one hand, a generative grammar is one that projects any given set of sentences upon the infinite set of sentences that constitute the language being described; this is the property of the grammar that reflects the creative aspect of human knowledge. The second sense of *generative* implies that the rules of the grammar and the conditions under which they operate must be precisely specified. They should be as precisely specified, i.e. **formalized,** as the rules of arithmetic. On this basis, Chomsky can account for the occurrence of ungrammatical sentences, and also for the occasional inability of listeners to analyse perfectly grammatical sentences, in much the same way as we can account for the differences in the evaluation of a mathematical function. They are due to errors of performance - errors made in the application of the rules.

Chomsky conceives the **language** that is described by a particular grammar as the set of all the sentences it generates. English, and all other natural languages, comprise an infinite number of sentences. But the number of words in the vocabulary of English is finite. For simplicity, it is assumed that the vocabulary of the language is both determinate and invariable, and finite. Another assumption is that the number of distinct operations that are involved in the generation of English sentences is finite in number. If grammar is to consist of a finite set of rules operating upon a finite vocabulary and is to be capable of generating an infinite set of sentences, it follows that at least some of the rules must be applicable more than once in the

generation of the sentences. Such rules, and the structures they generate, are called **recursive.** For instance, it is intuitively clear that in expanding the sentence *This is the man that married the girl* by adding to it the clause *that wrote the book*, it is a clause of the same type as *that married the girl* that we added to the original sentence.

Chomsky, in his conception, has it that every different sequence of words (if it is well-formed) is a different sentence. Under his definition, not only are *The dog bit the men* and *The man bit the dog* different sentences, but so also are *I had an idea on my way home* and *On my way home I had an idea*.

Chomsky distinguishes between terminal elements and **auxiliary elements.** The former are those which actually occur in sentences: words at the syntactic level and phonemes at the phonological level. All other terms or symbols that are employed in the formulation of grammatical rules may be described as auxiliary elements. In particular, it should be noted that the terms or symbols used to denote the parts of speech are auxiliary elements in generative grammar. In addition, the fact that a particular word belongs to a particular class - that it is a member of the class N (=noun), let us say - must be made perfectly explicit within the grammar. In effect it means that every word in the vocabulary must be assigned to the syntactic class, or classes, to which it belongs.

2 FINITE-STATE GRAMMAR

The simplest grammars discussed by Chomsky that are capable of generating an infinite set of sentences by means of a finite number of recursive rules operating upon a finite vocabulary are what he calls **finite-state grammars.** These are based on the view that sentences are generated by means of a series of choices made from left to right: that is to say, after the first, or leftmost, element has been selected, every subsequent choice is determined by the immediately preceding elements. According to this conception of syntactic structure, a sentence like *This man has brought some bread* might be generated as follows. The word *this* would be selected for the first position from a list of all the words capable of occurring at the beginning of English sentences. Then *man* would be selected as one of the words possible after *this; has* as one of the words that can occur after *this* and *man;* and so on. If we had first selected *those* or *these* instead of *this*, we would then have to select words like *men* for the second position, followed by words like *have* for the third position, etc. Chomsky, however, demonstrated the inadequacy of finite-state grammars by pointing out that there are certain regular processes of sentence formation in English that cannot be accounted for at all, no matter how clumsy an analysis we were prepared to tolerate, within the framework of finite-state grammar.

3 PHRASE STRUCTURE GRAMMAR

The second of Chomsky's three models for the description of language, **phrase structure grammar,** is much more satisfactory than the finite-state grammar. Any set of sentences that can be generated by a finite-state grammar can be generated by a phrase structure grammar, but the converse does not hold. It can be said that the phrase structure grammars are intrinsically more **powerful** than finite-state grammars. To illustrate the idea, Chomsky uses a simple sentence *The man hit the ball*. It is made up of five words arranged in a particular order. The words out of which the sentence is composed are termed **ultimate constituents** (implying that these elements are not further analysable at the syntactic level). The order in which the ultimate constituents occur relative to one another may be described as the **linear structure** of the sentence. In traditional approach, it would be said that the above model sentence has a **subject** and a **predicate,** that the subject is a **noun phrase** (NP), which consists of the definite article (T) and a noun (N); and that the predicate is a **verb phrase** (VP), which consists of a verb (V) and its object, which, like the subject, is a noun phrase consisting of the definite article and a noun. This description corresponds with the Bloomfieldian **immediate constituent analysis.** Chomsky's term for the notion of constituent structure is **phrase structure** - another kind of syntactic structure in addition to the linear structure of sentences.

An important notion in this connection is that of **bracketing.** There are many sequences of words in English that are ambiguous. A classic example is the phrase *old men and women* (A N and N, in general) which may be interpreted either as (*old men*) *and women*, or *old* (*men and women*). That is to say, two strings of elements may have the same linear structure, but differ with respect to their phrase structure. The difference in their phrase structure may be semantically relevant. The theoretical importance of this **structural ambiguity** lies in the fact that the ambiguity of such strings as *old men and women* cannot be accounted for by appealing to a difference of any of the **ultimate constituents** or to a difference of linear structure.

Chomsky's main contribution to the theory of constituent structure was first of all to show how it could be formalized by means of a system of generative rules and then to demonstrate that, although phrase structure grammar was more powerful and more satisfactory for the description of natural languages than finite state grammar, it had illustrated by means of the following rules:

1. Sentence → NP+VP
2. NP → Verb+NP
3. VP → Verb+NP

4. T → the
5. N → man, ball, etc.
6. Verb → hit, took, etc.

This set of rules is a simple phrase structure grammar. Each of these rules is of the form X -> Y, where X is a single element and Y is a string consisting of one or more elements. The arrow is to be interpreted as an instruction to replace the element that occurs to its left with the string of elements that occur to its right (rewrite X as Y). The **terminal string** generated by the rules (assuming that *man, hit*, and *ball* are selected at the appropriate points) is *"the + man + hit + the + ball";* thus, the following nine strings, including the initial string and the kernel string,

Sentence

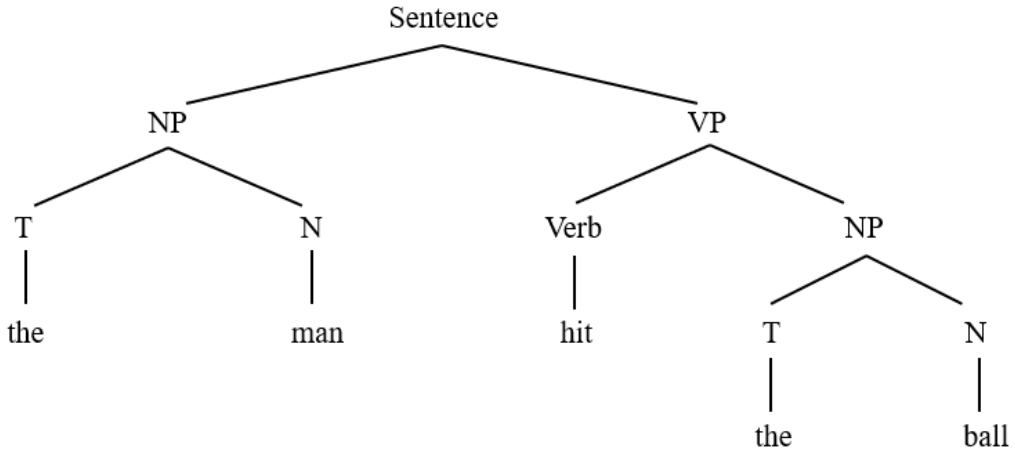
NP+VP
T+N+VP
T+N+Verb+NP
the+N+Verb+NP
the+man+Verb+NP
the+man+hit+NP
the+man+hit+T+N
the+man+hit+the+N
the+man+hit+the+ball

constitute a derivation of the sentence The man hit the ball in terms of this particular phrase structure grammar. This system assigns to sentences the appropriate phrase structure by means of **rewriting.** It means that the second line of the above example results from rewriting the symbol *Sentence* as *NP+VP* in accordance with the rule 1; the third line results from rewriting the symbol *NP* of the second line as *T+N* based on the rule 2, etc.

A number of restrictions are placed on phrase structure rules: A single rule must expand only a single category, which means that the left-hand side of a rule will contain only a single category symbol. The right-hand side of the rule will, of course, contain as many constituents as the analysis requires. A second restriction is that items introduced on the right-hand side of the rule are considered to be ordered. Thus, in the rule 1, a sentence consists of an NP and a VP in that order. A third restriction is that no rule should change the categorial status of a

constituent, nor any sequence of rules lead to such a change: this restriction excludes a rule that seeks to change, say, an NP into a VP or a noun into a verb. A final restriction is that rules of this kind should not lead to deletions - if these were permitted then we should find analyses with uninterpretable categories.

Whenever we apply the rule, we put brackets around the string of elements that is introduced by the rule and we **label** the string. 'Labelling' means that each constituent is assigned a syntactic category. Thus, in the above sentence, each word has been labelled as a member of a word class: *man* and *ball* are N(ouns), *hit* a V(erb), *the* a determiner (T). When word are brought together into phrases these too are given labels: N(oun) P(hrase), P(repositional) P(hrase), V(erb) P(hrase), etc. The structure as a whole is assigned to the category of S(entence). For example, the string NP + VP derived by rule 1 is bracketed and labelled as Sentence (NP + VP). The labelled bracketing assigned to NP + Verb + NP is Sentence (NP + VP(Verb + NP)), etc. An alternative means of representing the labelled bracketing is a **tree diagram:**



The diagram shows the structure of the sentence as a whole developing from an **initial (category) symbol** S, for sentence, and the tree is said to be **rooted** in S. The structure from S then **branches** into two constituents - a NP and a VP. A point at which branching occurs is a **node**: thus, we can talk about the 'NP node', 'VP node', etc. Nodes which branch further are **non-terminal** (in the above diagram, S, NP, VP, NP) and nodes which do not branch any more are **terminal.** When a branching structure is developed from any node, that node **dominates** the nodes which branch from it. These relationships between nodes are often described in 'family tree' terminology - the dominating category being the **mother** and the dominated categories the **daughters;** daughters of the same mother will obviously be **sisters,** and we can then go on to identify the **left sister, right sister,** and so on.

The labelled bracketing, associated with a terminal string generated by a phrase structure, is called a **phrase marker.** As far as the relationship between the phrase marker and such notions as subject and object is concerned, it holds that the **subject** is that NP, which is directly dominated by Sentence, and the object is that NP which is directly dominated by VP. All the phrase structure rules introduced so far have been **context-free:** that is to say, they have all been of the form X->Y, no reference being made to the context in which X is to be rewritten as Y. However, there are also the so-called **context-sensitive rules** of the type X->Y/W - V to be read as "rewrite X as Y in the context of W to the left and V to the right". It is by means of a context-sensitive rule that we may account for, e.g., the agreement that holds between the subject and the verb in English sentences; sentences that can be generated by a context-free grammar can be generated by a context-sensitive grammar; the converse, however, is not true.

Though being more comprehensive than the finite-state grammar, the phrase structure grammar is unable to describe the full variety of syntactic structures. Thus, for instance, it cannot solve the problem of the so-called **understood** (e.g. the omitted and bracketed *sat* in the sentence *The cat sat on the mat and the dog (sat) by the fire*) and **discontinuous constituents** (e.g. *lick* and *up* in the sentence *The cat licked the milk up*), the problem of agreement, etc. Moreover, a phrase structure grammar cannot relate apparently related sentences, such as *The man opened the door*, *Did the man open the door ?The man did not open the door*, etc. It means that it will generate the three sentences.

4 TRANSFORMATIONAL GRAMMAR

The third, and most comprehensive grammar, that is treated by Chomsky is the **transformational grammar.** It includes both transformational and phrase structure rules, and the transformational rules depend upon the effect, not only of converting one string of elements into another, but, in principle, of changing the associated phrase-marker. Furthermore, they are formally more heterogeneous and more complex than phrase structure rules. The set of phrase structure rules used in transformational grammar is as follows:

1.	Sentence	→	NP + VP
2.	VP	→	Verb + NP
3.	NP	→	$\left\{\begin{matrix} NP_{sing} \\ NP_{pl} \end{matrix}\right\}$
4.	NPsing	→	T + N + 0
5.	NPp	→	T + N + s
6.	T	→	the
7.	N	→	{man, ball, dog, book,...}
8.	Verb	→	Aux + V
9.	V	→	{hit, take, bite, eat, walk, open,...}
10.	Aux	→	C(M)(have+en)(be+ing)
11.	M	→	{will, can, may, shall, must}

In this set of rules a large number of tenses and moods are introduced by means of the element **Aux** and its subsequent development. Rule 10. implies that every string generated by it must contain the element **Tense** (C) and may contain, in addition, one or more of other strings of elements in brackets. It should be noted that the rules 6., 7. and 9. are termed **lexical substitution rules,** and the **braces** { } indicate **classes** of morphemes. The braces are employed to list a set of elements any of which, but only one of which, may be selected. The dots in rules 7 and 9 indicate **open sets,** while the absence of dots in rule 11. indicates a **closed set.** The number of sentences that can be generated by these rules is infinite once we add more and more nouns and verbs in rules 7 and 9.

The application of phrase structure rules yields a terminal string. Within the transformational grammar context, this terminal string is called **kernel string.** This should not be confused with the term **kernel sentence.** Kernel string is the output of the phrase structure rules (PS-rules). A kernel sentence is any sentence which is generated from a single kernel string

by **obligatory transformations** without the application of any **optional transformations.** It means that no sentence in transformational grammar is generated without the application of at least a limited number of obligatory transformations. Their function is to provide the verb with its tense markers, if the tense is present or past, to provide nouns with the plural suffix if the number is plural, etc. This can be illustrated by an example given by J. Lyons (1970): All the following sentences are independent, as quite distinct sentence types, which implies a large number of rules.

Related in that they derive from the same underlying (kernel) string:

1) The man opened the door.
2) The man did not open the door.
3) Did the man open the door?
4) Didn't the man open the door?
5) The door was opened by the man.
6) The door wasn't opened by the door.
7) Was the door opened by the man?
8) Wasn't the door opened by the man?

They differ in that:

1) has no optional transformation applied to the underlying string
2) has had the Negative transformation applied
3) has had the Interrogative transformation applied
4) has had the Negative and Interrogative transformations applied
5) has had the Passive transformation applied
6) has had the Passive and Negative transformations applied
7) has had the Passive and Interrogative transformations applied
8) has had the Passive, Negative and Interrogative. transformations applied.

Of these eight sentences the first (a **simple, active declarative sentence**) is defined by Chomsky as a kernel sentence. It should be emphasized that non-kernel sentences are not derived from kernel sentences, but from a common underlying string by the application of at least a small number of obligatory and optional transformations. An obligatory transformation can be exemplified by the **number transformation:**

$$\text{Present} \rightarrow \left\{ \begin{array}{l} \text{s/NP}_{\text{sing}}\_\_\_\_\_ \\ \text{O/elsewhere} \end{array} \right\}$$

This is a context-sensitive rule, which says that Present is to be rewritten as *s* if and only if it is immediately preceded in the underlying string by a sequence of one or more elements dominated by NP_{sing} in the associated phrase marker, but it is to be rewritten in all other contexts as **zero** (i.e. as the absence of a suffix). It is this rule which accounts for the agreement between the subject and the verb.

A transformational rule has two parts: **structural analysis** (SA) - it is used to determine sentence constituents (constituent structure) of the input string, and **structural change** (SC) - it specifies how to change the original structure to get the derived structure. For example, the **passive transformation** in English will have the following shape (Chomsky 1957):

SA: NP - Aux - V - NP

SC: X_1-X_2-X_3-X_4 -> X_4 - X_2+be+en - X_3 - by+X_1

The passive transformation involves three operations:

1) Subject and object NPs switch their positions
2) *by* prefixed to the original subject NP in its new position
3) *Be* + *en* is inserted between the *Aux* and *V*.

To take an example:

John will have polished the table.

NP_1 - Aux - V - NP_2

The table will have been polished by John

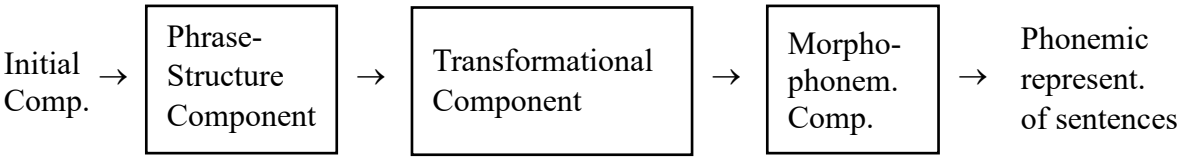
NP_2 - Aux + be + en - V + by - NP_1

Up to now, we have discussed two components of Chomsky's theory:

a) the generation of kernel strings by the so-called **rewrite rules**
b) the derivation of other sentences by the so-called **transformational rules.**

It is obvious, however, that these processes do not generate actual sentences of the language, but mere sequences of particular symbols. Their conversion into actual sentences can be achieved by the so-called **morphophonemic rules,** i.e., these rules change the terminal string into phonological symbols, phonological sequences.

The grammar developed in Syntactic structures can thus be represented as follows:



The input to the grammar is the initial element which generates a set of underlying strings by means of PS-rules in the first box of the diagram. The second box comprises the T-rules, of which some are optional and others obligatory. These rules take, as their input, underlying strings (kernel strings), and by successively modifying these strings and their associated phrase markers, generate as their output all and only the sentences of the language, represented as strings of words and morphemes, and assign to each sentence its derived constituent structure. The third box of rules then converts each of these sentences from its syntactic representation as a string of words and morphemes to its phonological representation as a string of phonemes.

Before we proceed to the so-called Standard theory, we should briefly mention some additional advantages of the transformational grammar when compared with the phrase structure grammar. A transformational approach will cope with the problems of discontinuous and understood constituents. It will generate the relevant constituents as a unit in underlying structure and then separating them by transformation. Thus, if we have two sentences (Brown 1984):

1. *The cat licked up the milk*

2. *The cat licked the milk up,*

we consider 1 as representing the underlying structure and the particular rule of 'particle movement' will move the particle *up* over the NP object. The rule can be considered as 'optional' when the NP object contains a lexical noun as in the examples. When the NP object is a pronoun, however, the rule must be considered 'obligatory'. This will ensure that we derive the required:

3. *The cat licked it up*.

As far as 'understood' constituents are concerned, the transformational grammar assumes that the basic structure will contain a 'real' constituent which is deleted if it is identical with some other constituent in the sentence. Thus, the deep structure of the sentence *The cat sat on the mat and the dog by the fire* will be *The cat sat on the mat and the dog sat by the fire*, and the second mention of *sat* is deleted by a corresponding rule.

Another problem which can't be coped with by the phrase structure grammar is the grammatical agreement. This can be handled within the transformational grammar by postulating a rule that copies the relevant morpheme from the 'controller' of the agreement on to the controlled item. So, if singular subjects require singular verbs and plural subjects plural verbs, we can generate a morpheme {sing} in the subject and copy it onto the verb. The transformational grammar can, namely, identify subject and main verb through categorial configurations: as mentioned above, the subject is the NP dominated by S, and the main verb is V dominated by the VP that is dominated by the same S. Given these identifications, it is possible to formulate a transformational rule that can cope with this kind of problem.

5 STANDARD THEORY

The first, above-mentioned - in a very simplified way - version of Chomsky's transformational and generative grammar, as explained in *Syntactic Structures* (1957), attracted a lot of attention among linguists, however, some points of the theory were called in question. The theory was mainly criticized for its formalism and for neglecting the semantic facet of language. Hence, in his book, *Aspects of the theory of Syntax* (1965), Chomsky developed a modified theory, subsequently known as the **Standard theory,** in which he introduced two important terms - **deep structure** and **surface structure.** A structural description of a sentence in a language consists of a description both of its deep structure and of its surface structure, with the transformation rules linking the two. Deep structures are phrase-markers containing all data about lexical items necessary for the specification of the semantic content of a sentence - it is a set of all semantic components of a sentence, i.e. its meaning. Surface structure is then the one resulting from transformations applied to deep structure, however without the application of morphonological rules that would change the structure into concrete sequences of morphemes and phonemes. It follows that the role of the transformational component has changed. Its function does not consist anymore in deriving from several kernel strings all sentences of a language. Now, the transformations are designed to convert the deep structure into the surface structure. In other words, they permit to pass from the semantic content of a sentence to the specific sound form, the phonetic form of a sentence. The transformational generative grammar in its second version thus includes three components (sentence structures are generated in three stages):

The **syntactic component** consists of rules that generate deep structures (i.e. initial phrase markers), combined with rules mapping these into associated surface structures. Chomsky calls these two systems of rules the **base component** and the **transformational component,** respectively. The base component aims to capture generalizations about basic constituent structure. It is further subdivided into two parts, the categorial system and the lexicon. The **lexicon** is a set of lexical entries, and each lexical entry can be regarded as a set of features, e.g. ANIMATE, HUMAN, ABSTRACT, etc. The lexicon is grammaticized. That means that it was adjusted to express the unacceptability of a sentence such as *Sincerity admires John*. This was accomplished through the above features of words. If the NP subject of a sentence is delimited by the feature -HUMAN, it will clash with +HUMAN in the verb. So, by specifying *sincerity* as -HUMAN and *admires* as +HUMAN, and adding those features to the deep structure phrase-marker, it becomes possible to block a sentence and declare it ungrammatical. The problem is

usually described as involving **selection restrictions.** The lexicon is designed not to be just a list of dictionary definitions, but an enormously diverse and complex complement to the grammar. Since many lexical entries have unique or almost unique characteristics, the system of grammar is substantially simplified by putting all these properties into the lexicon. The lexicon entries then absorb all idiosyncrasies and irregularities of the language. For illustration, there are some verbs which do not occur in passive sentences, for instance, *resemble*. Such a verb will be marked for this idiosyncrasy in its lexical entry: [- PASSIVE].

The **categorial component** of the base determines the ordering of elements in deep structures. It is a system of phrase structure rules yielding a phrase-marker. The output of the base component is a syntactical deep structure.

The deep structure established by means of the base component is perhaps the most important single construct in the entire system since it acts as the essential bridge between the syntax and the semantics. It is reflected in the fact that it is made available to the semantic component for semantic interpretations, and it serves as an input to the transformational component. The transformational component not only accounts for surface forms but is also the component which is primarily responsible for accounting for structural relatedness between sentences. Transformational rules operate on ready-made structures (basic phrase-markers) and have the power to delete, move, substitute, or add material, that is to say, they can reorder and reorganize the phrase-markers. Since a sequence of transformations can effect significant modifications in a phrase-marker, we should not be surprised to discover that a single surface structure may result from two very different deep structures, that is, that certain sentences are ambiguous. In other words, surface similarities hide underlying distinctions. It can be exemplified as follows: It is obvious that the sentence *What disturbed John was being disregarded by everyone* has two distinct interpretations. Under one interpretation, it means that John was disturbed by the fact that everyone disregarded him; under the second it means that everyone was disregarding the things that disturb John. Into this category of surface sentences belongs also the well-known Chomsky's example *Flying planes can be dangerous*.

It should be noted that the first of the transformations is the set of **lexical insertion transformations,** which insert items from the lexicon under syntactically appropriate terminal nodes in the deep structure (initial phrase marker). The result after the application of all the transformations is the syntactic surface structure. Both deep and surface structures are represented in the linguistic literature by the **tree diagram.**

The meaning and the pronunciation of sentences is determined by two **interpretive components.** The **semantic component** is a system of rules for the semantic interpretation of

the deep structure of sentences. It should be noted that in earlier versions of 'standard theory' grammars, no systematic semantic representation was supplied. There was no general agreement on what form a semantic representation should take or just what work it should do. More recently, semantic representations have been provided in the form of predicate calculus, approximately in the way outlined by **Brown** (1984):

The sentence *The cat killed the mouse* can be represented as:

KILL (CAT, MOUSE).

This kind of representation is based on the notion of **proposition.** Propositions correspond to the basic meaning which a sentence expresses. Propositions consist of

a) something which is named or talked about (known as the **argument** - *cat* and *mouse* in our example), and

b) an assertion or **predication** which is made about the argument - *kill* in our example.

The sentence *The cat hasn't killed the mouse* is supposed to express the same proposition and will receive the representation:

NOT (P)
|
KILL (CAT, MOUSE)

Negation is thus interpreted as an 'operator' on a proposition, 'P', which is the same as that of the corresponding affirmative sentence.

The sentence *Has the cat killed the mouse?* will be represented as:

QU (P)
|
KILL (CAT, MOUSE)

where 'QU' is regarded as another operator on the same proposition 'P' .

Finally, the sentence *Which cat has killed the mouse?* will have two operators:

wh CAT QU (P)
|
KILL (CAT, MOUSE)

These semantic representations are intended to capture the intuition that 'who is doing what and to whom' remains constant by assuming that the semantic representation of each sentence expresses the same 'basic' proposition – KILL (CAT, MOUSE). Any difference in meaning will then be attributable to the way this basic proposition is embedded under one or more of the operators - NOT, QU and wh N.

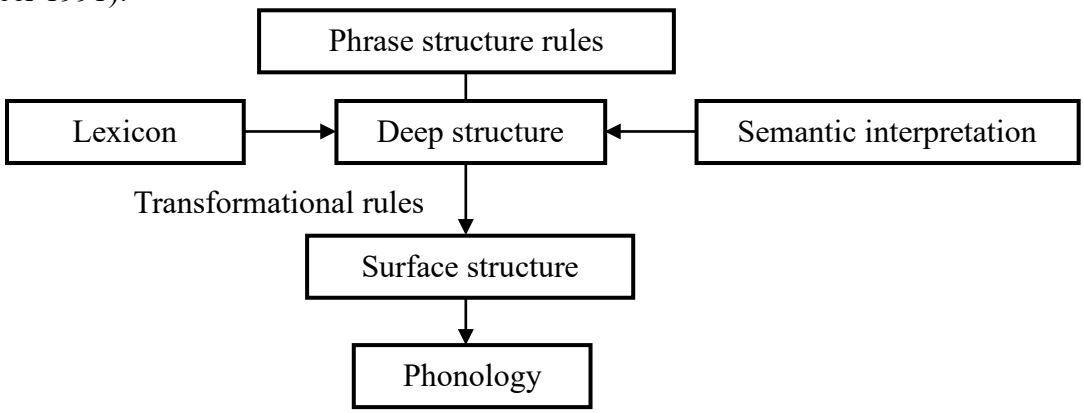
In order to connect the syntactic structures to the semantic representations, the transformational grammar of this sort makes use of lexical representations. Verbs, for instance, have lexical entries like

KILL V,— NP
NP1(agent)—NP2(patient)
'KILL' (NP1 NP2)

The first line specifies KILL as a transitive verb. The second line shows the functional relations that the subject and object NPs bear to the verb. The last line specifies the 'logical' representation: 'KILL' represents the meaning of KILL, and the representation of the arguments of KILL shows that they are to be understood as being ordered. NP1, the 'logical' subject, precedes NP2, the 'logical' predicate: the identity of these NPs being derived from the second line.

The pronunciation is, however, specified from the surface structure. This forms the input to the **phonological component,** a set of phonological rules that change the surface structure to the concrete sound form of a sentence.

The general picture of the Standard Theory can be seen from the following diagram (Spencer 1991):



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