Теоретическая фонетика английского языка

English phonetics

A Theoretical course

Теоретическая фонетика английского языка

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FOREWORD

Phonetic structure of English is rather a vast area of study for teachers of this language. The purpose of our book is to describe the system of phonetic functional units and their use in the process of social communication.

The plan of this book is organized accordingly. Introduction makes some pleas for the value of phonetics for foreign language teaching and study, views phonetics as a branch of linguistics, establishes its connection with other fields of science, etc. Chapter I introduces the functional approach to the pronunciation of English in use. Chapter II is concerned with segmental phonemes. Chapters III, IV, V discuss suprasegmental aspects including accentual structure, syllabic structure and intonation. Chapter VI is devoted to territorial varieties of English and its teaching norm.

The authors hope that during this course the students will be encouraged to enter into a dialogue with our book and savour the endless fascination of this aspect of linguistic organization.

INTRODUCTION

This book is aimed at future teachers of English. The teachers of a foreign language are definitely aware of the existence of phonetics. They are always being told, that it is essential that they should be skilful phoneticians. The reaction may be different. Some teachers meet it with understanding. Some protest that it is not in their power, for various reasons, to become phoneticians, others deny that it is really necessary.

"Is it in fact necessary for a language teacher to be a phonetician? I would reply that all language teachers willy-nilly are phoneticians. It is not possible, for practical purposes, to teach a foreign language to any type of learner, for any purpose, by any method, without giving some attention to pronunciation. And any attention to pronunciation is phonetics" (42, p. 28).

What do we mean by phonetics as a science? Phonetics is concerned with the human noises by which the thought is actualised or given audible shape: the nature of these noises, their combinations, and their functions in relation to the meaning. Phonetics studies the sound system of the language, that is segmental phonemes, word stress, syllabic structure and intonation. It is primarily concerned with **expression level**. However, phonetics is obliged to take the **content level** into consideration too, because at any stage of the analysis, a considerable part of the phonetician's concern is with the effect which the expression unit he is examining and its different characteristics have on meaning. Only meaningful sound sequences are regarded as speech, and the science of phonetics, in principle at least, is concerned only with such sounds produced by a human vocal apparatus as are, or may be, carriers of organized information of language. Consequently, phonetics is important in the study of language. An understanding of it is a prerequisite to any adequate understanding of the structure or working of language. No kind of linguistic study can be made without constant consideration of the material on the expression level.

It follows from this, that phonetics is a basic branch — many would say the most fundamental branch — of linguistics; neither linguistic theory nor linguistic practice can do without phonetics, and no language description is complete without phonetics, the science concerned with the spoken medium of language. That is why phonetics claims to be of equal importance with grammar and lexicology.

Phonetics has two main divisions; on the one hand, **phonology**, the study of the sound patterns of languages, of how a spoken language functions as a "code", and on the other, the study of **substance**, that carries the code.

Before analysing the linguistic function of phonetic units we need to know how the **vocal mechanism** acts in **producing oral speech** and what methods are applied in investigating the material form of the language, that is its substance.

Human speech is the result of a highly complicated series of events. The formation of the concept takes place at a linguistic level, that is in the brain of the speaker; this stage may be called **psychological**. The message formed within the brain is transmitted along the nervous system to the speech organs. Therefore we may say that the human brain controls the behaviour of the articulating organs which effects in producing a particular pattern of speech sounds. This second stage may be called **physiological**. The movements of the speech apparatus disturb the air stream thus producing sound waves. Consequently the third stage may be called **physical** or **acoustic**. Further, any communication requires a listener, as well as a speaker. So the last stages are the **reception** of the sound waves by the listener's hearing physiological apparatus, the **transmission** of the spoken message through the nervous system to the brain and the **linguistic interpretation** of the information conveyed.

Although not a single one of the organs involved in the speech mechanism is used only for speaking we can, for practical purposes, use the term "organs of speech" in the sense of the organs which are active, directly or indirectly, in the process of speech sound production.

In accordance with their linguistic function the organs of speech may be grouped as follows:

The respiratory or **power mechanism** furnishes the flow of air which is the first requisite for the production of speech sounds. This mechanism is formed by the lungs, the wind-pipe and the

bronchi. The air-stream expelled from the lungs provides the most usual source of energy which is regulated by the power mechanism. Regulating the force of the air-wave the lungs produce variations in the intensity of speech sounds. Syllabic pulses and dynamic stress, both typical of English, are directly related to the behaviour of the muscles which activate this mechanism.

From the lungs through the wind-pipe the air-stream passes to the upper stages of the vocal tract. First of all it passes to the **larynx** containing the **vocal cords**. The function of the vocal cords consists in their role as a **vibrator** set in motion by the air-stream sent by the lungs. At least two actions of the vocal cords as a vibrator should be mentioned.

The opening between the vocal cords is known as the **glottis**. When the glottis is tightly closed and the air is sent up below it the so-called glottal stop is produced. It often occurs in English when it reinforces or even replaces [p], [t], or [k] or even when it precedes the energetic articulation of vowel sounds. The most important speech function of the vocal cords is their role in the production of **voice**. The effect of voice is achieved when the vocal cords are brought together and vibrate when subjected to the pressure of air passing from the lungs. This vibration is caused by compressed air forcing an opening of the glottis and the following reduced air-pressure permitting the vocal cords to come together again.

Glottal positions. Diagrams of some of the possible settings of the vocal cords:
a — tightly closed as for the glottal stop; b — wide-open as for breath;
c — loosely together and vibrating as for voice.

The height of the speaking voice depends on the frequency of the vibrations. The more frequently the vocal cords vibrate the higher the pitch is. The typical speaking voice of a man is higher than that of a woman because the vocal cords of a woman vibrate more frequently. We are able to vary the rate of the vibration thus producing modifications of the **pitch** component

of intonation. More than that. We are able to modify the size of the puff of air which escapes at each vibration of the vocal cords, that is we can alter the **amplitude** of the vibration which causes changes of the **loudness** of the sound heard by the listener.

From the larynx the air-stream passes to **supraglottal cavities**, that is to the **pharynx**, the **mouth** and the **nasal** cavities. The shapes of these cavities modify the note produced in the larynx thus giving rise to particular speech sounds.[1]

We shall confine ourselves here to a simple description of the linguistic function of the organs of speech, and refer the reader for further information to any standard handbook of anatomy and physiology, or, rather, to books on general linguistics.

There are **three branches** of phonetics each corresponding to a different stage in the communication process mentioned above. Each of these branches uses quite special sets of methods.

The branch of phonetics that studies the way in which the air is set in motion, the movements of the speech organs and the coordination of these movements in the production of single sounds and trains of sounds is called **articulatory** phonelics.

Acoustic phonetics studies the way in which the air vibrates between the speaker's mouth and the listener's ear. Until recently, articulatory phonctics has been the dominating branch, and most descriptive work has been done in articulatory terms. Furthermore, there has appeared no need to alter the balance in any substantial way, especially for the purpose of teaching, acoustic phonetics presenting special interest for research work and applied linguistics. Nevertheless, in the nearest future it may start to play a constantly growing part in teaching pronunciation. We may hope that the development of computing technique will give rise to all sort of teaching machines.

The branch of phonetics investigating the hearing process is known as **auditory** phonetics. Its interests lie more in the sensation of hearing, which is brain activity, than in the physiological working of the ear or the nervous activity between the ear and the brain. The means by which we discriminate sounds — quality, sensations of pitch, loudness, length, are relevant here. This branch of phonetics is of great interest to anyone who teaches or studies pronunciation.

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[1] For a detailed description see: Практическая фонетика английского языка: Учеб. для фак. англ. яз. пед. ин-тов / Соколов М.А., Гинтовт К.П., Кантер Л.А. и др. — М.: Высшая школа, 1984.

It is interesting now to consider the **methods** applied in investigating the sound matter of the language.

It is useful to distinguish between phonetic studies carried out without other instruments of analysis than the human senses and such as are based upon the witness of registering or computing machines and technical analysing or synthesizing devices. The use of such a device as the tape-recorder does not of course imply in itself any instrumental analysis of the speech recorded, but simply serves the purpose of facilitating the speech analysis and conserving a replica of the speech the informants use.

From the beginning of phonetics the phonetician has relied mainly on what he could feel of his own speech and on what he could hear both of his own and the informant's speech. By training and practice he gains a high degree of conscious control over the muscular functioning of his vocal apparatus, and by experience he may acquire considerable skill in associating the qualities of the heard sound with the nature of the articulations producing it. These skills are obligatory for phoneticians and make phonetics an art rather than a science, an art which must be specially learned.

Instrumental methods deriving from physiology and physics were introduced into phonetics in the second half of the last century in order to supplement and indeed to rectify the impressions deriving from the human senses, especially the auditory impressions, since these are affected by the limitations of the perceptual mechanism, and in general are rather subjective.

The use of instruments is valuable in ascertaining the nature of the limitations and characteristics of the human sensory apparatus by providing finer and more detailed analysis against which sensory analysis can be assessed. In a general way, the introduction of machines for measurements and for instrumental analysis into phonetics has resulted in their use for detailed study of many of the phenomena which are present in the sound wave or in the articulatory process at any given moment, and in the changes of these phenomena from moment to moment. This is strictly an instrumental method of study. This type of investigation together with sensory analysis is widely used in **experimental phonetics**.

The results available from instrumental analysis supplement those available from sensory analysis. Practically today there are no areas of phonetics in which useful work can and is being done without combining these two ways of phonetic investiga-

tion. The "subjective" methods of analysis by sensory impression and the "objective" methods of analysis by instruments are complementary and not oppositive to one another. Both "objective" and "subjective" methods are widely and justifiably used in modern phonetics. Articulatory phonetics borders with anatomy and physiology and the tools for investigating just what the speech organs do are tools which are used in these fields: direct observation, wherever it is possible, e.g. lip movement, some tongue movement; combined with x-ray photography or x-ray cinematography; observation through mirrors as in the laryngoscopic investigation of vocal cord movement, etc.

Acoustic phonetics comes close to studying physics and the tools used in this field enable the investigator to measure and analyse the movement of the air in the terms of acoustics. This generally means introducing a microphone into the speech chain, converting the air movement into corresponding electrical activity and analysing the result in terms of frequency of vibration and amplitude of vibration in relation to time. The use of such technical devices as spectrograph, intonograph and other sound analysing and sound synthesizing machines is generally combined with the method of direct observation.

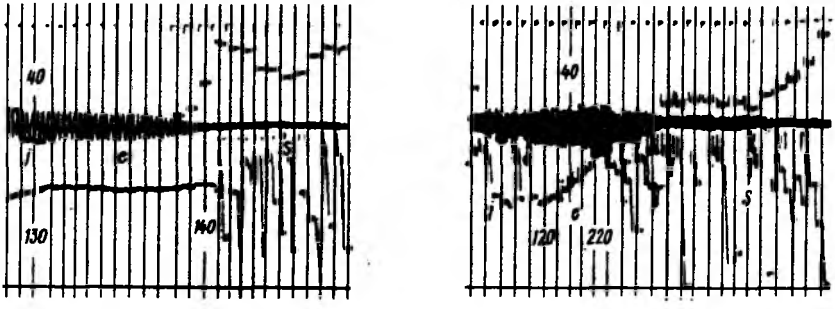
The pictures on p. 11 may be a good illustration of the use of such a device as the intonograph.

The methods applied in auditory phonetics are those of experimental psychology.

As was stated above, phoneticians cannot act only as describers and classifiers of the material form of phonetic units. They are also interested in the way in which sound phenomena function in a particular language, how they are utilized in that language and what part they play in manifesting the meaningful distinctions of the language. The branch of phonetics that studies the linguistic function of consonant and vowel sounds, syllabic structure, word accent and prosodic features, such as pitch, stress and tempo is called **phonology**.

In linguistics, function is usually understood to mean discriminatory function, that is, the role of the various elements of the language in the distinguishing of one sequence of sounds, such as a word or a sequence of words, from another of different meaning. Though we consider the discriminatory function to be the main linguistic function of any phonetic unit we cannot ignore the other function of phonetic units, that is, their role in the

formation of syllables, words, phrases and even texts. This functional or social aspect of phonetic phenomena was first introduced in the works by I.A.Baudouin-de-Courtenay. Later on N.S.Trubetskoy declared phonology to be a linguistic science limiting articulatory and acoustic phonetics to anatomy, physiology and acoustics only. This conception is shared by many foreign linguists who investigate the material form and the function of oral speech units separately. Soviet linguists proceed from the truly materialistic view that language being the man's medium of thought can exist only in the material form of speech sounds. That is why they consider phonology a branch of phonetics that investigates its most important social aspect[1]. Phonology possesses its own methods of investigation which will be described later in the course.



The intonogramme of the English phrases "Yes." "Yes?"

Apart from its key position in any kind of scientific analysis of language phonetics plays an important part in various applications of linguistics. A few may be mentioned here.

A study of phonetics has, we believe, educational value for almost everyone, realizing the importance of language in human communication. It is fair to mention here that though language is the most important method we have of communicating, it is manifestly not the only method. We can communicate by gestures, facial expressions, or touch, for instance, and these are not language. The study of the complex of various communication techniques is definitely relevant to teaching a foreign language.

[1] In the following chapters we shall sometimes traditionally use the term "phonetic" meaning non-phonological distinctions.

Through study of the nature of language, especially of spoken language, valuable insights are gained into human psychology and into the functioning of man in society. That is why we dare say that phonetics has considerable **social value.**

As regards the learning of specific foreign languages, there has never been a time in the world when the ability of growing numbers of people to speak one another's language really well has been of such significance as now. Some training in linguistics and phonetics in general, and in the pronunciation of particular language is coming more and more to be considered equipment for a teacher of foreign languages in school or special faculties making him more efficient in his routine work on the spoken language, as well as in the variety of other things, such as coping with audio-visual aids like tape-recorders and language laboratories or in knowing what to do about any of his pupils who have defective speech.

A knowledge of the structure of sound systems, and of the articulatory and acoustic properties of the production of speech is indispensable in the teaching of foreign languages. The teacher has to know the starting point, which is the sound system of the pupil's mother tongue, as well as the aim of his teaching, which is a mastery of the pronunciation of the language to be learnt. He must be able to point out the differences between these two, and to arrange adequate training exercises. Ear training and articulatory training are both equally important in modern language teaching. The introduction of technical equipment — disks, tape-recorders, language laboratories, etc. — has brought about a revolution in the teaching of the pronunciation of foreign languages.

In our technological age phonetics has become important in a number of technological fields connected with communication. On the research side much present-day work in phonetics entails the use of apparatus, and is concerned with the basic characteristics of human speech. Much basic research is to be done with the phonetician working alongside the psychologist on auditory perception as such and on the perception of speech in particular. The phonetician is further needed to work in conjunction with the mathematician and the communications engineer in devising and perfecting machines that will understand, that is respond to human speech, for the simpler programming of computers, machines that will produce with a high degree of intelligibility recog-

nizable human speech synthetically, machines that will reliably distinguish and identify individual speakers, machines for reproducing human speech in audible or visible forms. For instance, in the experimental stage are devices for "reading" the printed page, that is for converting the printed symbols or letters into synthetic speech. A little further away as yet, but apparently well within the bounds of possibility is the automatic or phonetic typewriter, which will convert speech directly into printed words on paper. Because of the obvious practical importance of advances in these fields it is certain that further collaboration will develop between phonetics and sound engineering, to the mutual benefit of each.

For those who work in speech therapy, which handles pathological conditions of speech, phonetics forms an essential part of the professional training syllabus. Phonetics also enters into the training of teachers of the deaf and dumb people and can be of relevance to a number of medical and dental problems.

An understanding of phonetics has proved extremely useful in such varied spheres as the following: investigations in the historical aspects of languages, and in the field of dialectology; designing or improving systems of writing or spelling (orthographies for unwritten languages, shorthand, spelling reform), in questions involving the spelling or pronunciation of personal or place names or of words borrowed from other languages.

Our further point should be made in connection with the relationship between phonetics and **social sciences**. A cardinal principle underlying the whole linguistic approach is that language is not an isolated phenomenon; it is a part of society, and a part of ourselves. It is a prerequisite for the development of any society. From the above you may see that phonetics enters into a number of specialized fields and that it is not possible to restrict the investigation of any phonetic phenomenon by the methods of linguistics only. No branch of linguistics can be studied without presupposing at least the study of other aspects of society. The way in which phonetics overlaps in its subject matter with other academic studies has become well appreciated over the last few years, and in the past two decades we have seen the development of quite distinct interdisciplinary subjects, such as **sociolinguistics** (and sociophonetics correspondingly), **psycholinguistics**, **mathematical linguistics** and others. These, as their titles suggest, refer to aspects of language which are relevant and susceptible to study from two points of view (sociology

and linguistics, psychology and linguistics and so on), and which thus requires awareness and development of concepts and the techniques derived from both.

Sociophonetics studies the ways in which pronunciation interacts with society. It is the study of the way in which phonetic structures change in response to different social functions and the deviations of what these functions are. Society here is used in its broadest sense, to cover a spectrum of phenomena to do with nationality, more restricted regional and social groups, and the specific interactions of individuals within them. Here there are innumerable facts to be discovered, even about a language as well investigated as English, concerning, for instance, the nature, of the different kinds of English pronunciation we use in different situations — when we are talking to equals, superiors or subordinates; when we are "on the job", when we are old or young; male or female; when we are trying to persuade, inform, agree or disagree and so on. We may hope that very soon sociophonetics may supply elementary information about: "who can say, what, how, using what phonetic means, to whom, when, and why?" In teaching phonetics we would consider the study of sociolinguistics to be an essential part of the explanation in the functional area of phonetic units.

Finally, we would like to mention one more example of interdisciplinary overlap, that is the relation of linguistics to psychology. **Psycholinguistics** as a distinct area of interest developed in the early sixties, and in its early form covered the psychological implications of an extremely broad area, from acoustic phonetics to language pathology. Nowadays no one would want to deny the existence of strong mutual bonds of interest operating between linguistics, phonetics in our case and psychology. The acquisition of language by children, the extent to which language mediates or structures thinking; the extent to which language is influenced and itself influences such things as memory, attention, recall and constraints on perception; and the extent to which language has a certain role to play in the understanding of human development; the problems of speech production are broad illustrations of such bounds.

The field of phonetics is thus becoming wider and tending to extend over the limits originally set by its purely linguistic applications. On the other hand, the growing interest in phonetics is doubtless partly due to increasing recognition of the central position of language in every line of social activity. It is important,

however, that the phonetician should remain a linguist and look upon his science as a study of the spoken form of language. It is its application to linguistic phenomena that makes phonetics a social science in the proper sense of the word, notwithstanding its increasing need of technical methods, and in spite of its practical applications.

At the faculties of foreign languages in this country two courses of phonetics are introduced:

Practical or **normative** phonetics that studies the substance, the material form of phonetic phenomena in relation to meaning.

Theoretical phonetics which is mainly concerned with the functioning of phonetic units in the language. Theoretical phonetics, as we introduce it here, regards phonetic phenomena synchronically without any special attention paid to the historical development of English.

This course is intended to discuss those problems of modern phonetic science which are strongly concerned with English language teaching. The teacher must be sure that what he teaches is linguistically correct. We hope that this book will enable him to work out a truly scientific approach to the material he introduces to his pupils.

In phonetics as in any other subject, there are various schools of thought whose views sometimes coincide and sometimes conflict. Occasional reference is made to them but there is no attempt to set out all possible current approaches to the phonetic theory because this book does not seem to be the place for that.

We shall try here to get away from complex sounding problems of theoretical phonetics by producing thumb-nail definitions, which will provide an easier starting point in this subject. The authors will try to explain exactly why it is important to emphasize that phonetics should be studied scientifically, and follow this up by analysing the object of study, pronunciation, in some detail. All of this assumes, we hope, a considerable amount of interest to the future teacher of English. However, it would be naïve of an author to expect anyone to work systematically through so many pages of the text without there being some advance interest or special reason for doing so. This introductory course will be accompanied by further reading, on the one hand, and with a system of special linguistic tasks, on the other, which will enable the students to approach professional problems; to satisfy their applied interest in the scientific study of their subject.

As you see from the above, this book is intended to consider

the role of phonetic means in the act of communication, to serve as a general introduction to the subject of theoretical phonetics of English which will encourage the teacher of English to consult more specialized works on particular aspects.

The authors of the book hope that the readers have sufficient knowledge of the practical course of English phonetics as well as of the course of general linguistics, which will serve as the basis for this course.

Phonetics is itself divided into two major components: **segmental** phonetics, which is concerned with individual sounds (i.e. "segments" of speech) and **suprasegmental** phonetics whose domain is the larger units of connected speech: syllables, words, phrases and texts. The way these elements of the phonetic structure of English function in the process of communication will be the main concern of all the following chapters.

The description of the phonetic structure of English will be based on the so-called Received Pronunciation which will be specified in Chapter VI.

The present volume attempts to survey the system of phonetic phenomena of English giving priority to those which present special interest to teaching activity. To start with it is necessary to realize what kind of English is used in the process of teaching. We all agree that we are to teach the "norm" of English, as a whole, and the "norm" of English pronunciation in particular. There is no much agreement, however, as far as the term "norm" is concerned. This term is interpreted in different ways. Some scholars, for instance, associate "norm" with the so-called "neutral" style. According to this conception stylistically marked parameters do not belong to the norm. More suitable, however, seems to be the conception put forward by Y. Screbnev, who looks upon the norm as a complex of all functional styles (27). We have given priority to the second point of view as it is clearly not possible to look upon the pronunciation norm as something ideal which does not, in fact, exist in objective speech. We look upon the norm as a complex unity of phonetic styles realized in the process of communication in accordance with varying extralinguistic and social factors.

In the following chapter we are going to dwell on the problems concerned with stylistic variation of oral speech including the analysis of the conditions under which the utterance is produced, the relationship between the utterance and the extralinguistic and social situation, etc.

Chapter I
PROBLEMS OF PHONOSTYLISTICS

As was mentioned in the introduction, pronunciation is by no means homogeneous. It varies under the influence of numerous factors. These factors lie quite outside any possibility of signalling linguistic meaning so it is appropriate to refer to these factors as **extralinguistic**. The chapter that follows is based on the idea that information about stylistic variations in learning, understanding and producing language is directly useful for the design, execution and evaluation of teaching phonetics. The branch of phonetics most usually applied for such information is phonostylistics. It is the purpose of this chapter to offer brief, readable and scholarly introduction to the main themes and topics covered by current phonostylistic studies.

We should point out right at the beginning that phonostylistics is a rapidly developing and controversial field of study though a great deal of research work has been done in it. It would not be accurate to say that phonostylistics is a new branch of phonetics. It is rather a new way of looking at phonetic phenomena. Linguists were until recently not aware of this way of analysis and awareness came only as a result of detailed analysis of spoken speech.

Before we go on to describe in detail what the problems and tasks of phonostylistics are we should want to give you some understanding of what gave a mighty impulse to this new way of looking at phonetic phenomena. The point is that during the first half of our century linguists have shown interest in written form of the language and so the emphasis in language study was laid on analysing written speech. It is only during the last thirty-five years that the situation has changed. It may be said that it was the invention of the tape-recorder and other technical aids that was the real turning point in phonetics and linguistics in general. Linguists got a good opportunity of studying the other form of language realization — spoken speech — the variety which had hitherto been largely or completely ignored. It is not

only the absence of mechanical aids which accounts for the lack of linguistic research that has been carried out into this variety of language and the procedure difficulty of obtaining reliable data to investigate. There is, however, a further reason. Until quite recently theory and research on language was based on the assumption that it is only the written form of language realization that can serve a reliable object of investigation, while the spoken form is not worthy of scientific analysis because it produces deviations from the literary norm.

Nobody would want to deny the fact that spoken speech is the primary medium of language expression. So when linguists became involved in investigating language in use they realized that language is not an isolated phenomenon, it is a part of society. In real life people find themselves in various and numerous situations. In these situations language is used appropriately, i.e. people select from their total linguistic repertoires those elements which match the needs of particular situations.

This fact changed the whole approach to the language. Rather than viewing language as an object with independent existence, a thing to be described for its own sake, it became evident that it must be seen as a tool, a means to an end outside itself. That end is, of course, communication and it is only in the context of communicative situation that the essential properties of a linguistic system can be discovered and analysed.

So it is taken to be reasonably obvious that much of what people say depends directly or indirectly on the situation they are in. The nature of this dependency is fairly complicated and it would be quite unrealistic to attempt to analyse all aspects of it. We would like to point out two things that matter for the description that follows and stand out clearly. On the one hand, variations of language in different situations it is used in are various and numerous but, on the other hand, all these varieties have much in common as they are realizations of the same system. That means that there are regular patterns of variation in language, or, in other words, language means which constitute any utterance are characterized by a certain pattern of selection and arrangement.

The principles of this selection and arrangement, the ways of combining the elements form what is called "the style". Style integrates language means constructing the utterance, and at the same time differs one utterance from another.

It must be noted that the category of style is not new in linguistics. The branch of linguistics that is primarily concerned with the problems of functional styles is called **functional stylistics**. Stylistics is usually regarded as a specific division of linguistics, as a sister science, concerned not with the elements of the language as such but with their expressive potential.

We should point out here that we are not going into details as to the problems of stylistics. We shall only try to show how phonostylistics overlaps with functional stylistics and to explain why there is no simple correspondence between functional and phonetic styles.

It has been suggested that a functional style can be defined as a functional set of formal patterns into which language means are arranged in order to transmit information. A considerable number of attempts have been made in recent years to work out a classification of functional styles. But in spite of this fact it is still an open question in linguistics. In other words, there is no universal classification that is admitted by all analysts.

This fact can be accounted for by the following reasons. As was pointed out earlier, language events take place in situations. The factors that determine the usage of certain language means are quite numerous and various. Their interdependence and interconnection are of complex nature. Consequently it is difficult to decide which of the factors are of primary importance and should be considered the most reliable criterion.

In addition, language as a means of communication is known to have several functions. In the well-known conception suggested by academician V.V.Vinogradov (10), three functions are distinguished, that is the function of communication (colloquial style), the function of informing (business, official and scientific styles) and the emotive function (publicistic style and the belles-lettres style). Classification of this kind actually reflects some of the aspects of stylistic phenomena. However, the criterion of distinguishing styles does not seem accurate enough. It is obvious that what is called the emotive function is the general task of literature but not of style. Besides, the language of fiction should not be treated on the same footing with the functional style of a language.

The other two above-mentioned functions cannot serve as a basis for distinguishing functional styles because there is no simple correspondence between the function and the style. For ex-

ample, scientific style is used not only for informing people but also for communication of scientists in discussions, talks, speeches and so on. Colloquial speech, in its turn, always combines those two functions. What is to be taken into account here is the difficulty of distinguishing those two functions, which is one of the basic problems. In fact communication is the process of exchanging information. The actual difference between communicating and informing can be marked primarily in a dialogue — monologue opposition.

As was mentioned above, there exist various classifications of functional styles. The terms that are most commonly dealt with are: scientific style, publicistic style, business style, belles-lettres style and colloquial style. The latter functions predominantly in everyday oral speech, though most scholars share the opinion that there is no simple correspondence between the styles and the forms of language realization.

We should note here that in the process of studying the characteristics of functional styles phonetic level of analysis has been completely ignored.

However, nobody would want to deny now that oral speech has its own specific characteristics and the quality of various forms and kinds of oral speech is by far larger than in written speech. So it is quite clear that description and comparison of all these variations is a matter of severe complexity as, on the one hand, each form is specific and, on the other hand, there are regular patterns of partial likeness between them. Now one thing is evident, that the sets of phonetic style-forming features do not correspond to functional styles in pure linguistic approach. They are characterized by different qualities.

We have mentioned above that certain nonlinguistic features can be correlated with variations in language use. The latter can be studied on three levels: phonetic, lexical and grammatical. The first level is the area of **phonostylistics**.

Summarizing, we may say that phonostylistics studies the way phonetic means are used in this or that particular situation which exercises the conditioning influence of a set of factors which are referred to as extralinguistic. The aim of phonostylistics is to analyse all possible kinds of spoken utterances with the main purpose of identifying the phonetic features, both segmental and suprasegmental, which are restricted to certain kinds of contexts, to explain why such features have been used and to

classify them into categories based upon a view of their function.

Before describing phonetic style-forming factors it is obviously necessary to try to explain what is meant by **extralinguistic situation**. We should note here that if a systematic exhaustive and ultimately realistic view of phonostylistic differentiation of oral speech is to be attained an orderly analysis of the communicative extralinguistic situation appears to be mandatory. The analysis shows that it can be defined by three components, that is **purpose**, **participants**, **setting**. These components distinguish situation as the context within which interaction (communication) occurs. Thus a speech situation can be defined by the co-occurrence of two or more interlocutors related to each other in a particular way, having a particular aim of communicating, communicating about a particular topic in a particular setting.

Firstly, a situation is connected with the purpose and the topic of the communication. For us **purpose** can be defined as the motor which sets the chassis of setting and participants going, it is interlinked with the other two components in a very intricate way. The purpose which is of interest to us here directs the activities of the participants throughout a situation to complete a task. Such purposes can be viewed in terms of **general activity types** and in terms of the **activity type plus specific subject matter**.

There appear to be a considerable number of quite general types of **activities**, for example: working, teaching, learning, conducting a meeting, chatting, playing a game, etc. Such activity types are socially recognized as units of interaction that are identifiable.

It is reasonable to assume that activity types available to members of a society are not simply random lists of all possibilities but are organized into clusters of activities that seem to be of the same order. So we might suggest that academic activities such as university lecturing, high-levelled school teaching, scientific reports, discussions, etc. as related to activity types are opposed to other groups of activity types, such as, for example, casual chat, whether of dentist and patient to schoolmates or neighbours. (One of the bases of such an opposition might be the degree of spontaneity or degree of preparedness of speech that would reveal clusters of pronunciation markers.)

It should be noted that activity type alone does not give an adequate account of the purpose in a situation. It only specifies

the range of possible purposes that participants will orient toward in the activity but not which specific one will be involved. People do not set out to lecture or to chat on something, they intend to lecture on physics, or literature, or art, to chat on weather or a book they have read. The notion of purpose requires the specification of contents at a more detailed level than that of activity type. This we shall call "**subject matter**" or "**topic**" and we shall assume isomorphy between subject matter of the speech activity and topic of speech ignoring such situations when, for example, participants might be cooking while chatting about their work. But we should like to point out here that subject matter, in large part, will determine the lexical items encountered, the pronunciation being very slightly affected. That is why when the study of functional variants of pronunciation is concerned it is activity types that form the notion of the purpose of communication.

Now let's consider another component of situation that is **participants**. Speech varies with participants in numerous ways. It is a marker of various characteristics of the individual speakers as well as of relationships between participants. Characteristics of individuals may be divided into those which appear to characterize the individual as an individual and those which characterize the individual as a member of a significant social grouping. The individualistic characteristics are not a primary focus of this volume. So let us turn our attention to social relationships. The taking on of roles and role relations is commonly confounded with settings and purposes. When Dr. Smith, for instance, talks like a doctor and not like a father or someone's friend it is likely to be when he is in a surgery or a hospital and is inquiring about the health of a patient or discussing new drugs with a colleague. Such confounding may well be more true of occupational roles than of non-occupational roles such as strangers or friends, adults or older and younger children, etc.

Usually **age** of participants is also an important category for social interaction. Among other things age is associated with the role structure in the family and in social groups, with the assignment of authority and status, and with the attribution of different levels of competence. The speech behaviour of a person not only conveys information about his or her own age but also about the listener or the receiver of the verbal message. Thus, old people speak and are spoken to in a different way from young people.

For instance, an elderly person usually speaks in a high-pitched voice, people generally use higher pitch-levels speaking to younger children.

There is another factor, which is included into the "participants" component of a speech situation. That is the **sex** of the speaker. Sex differences in pronunciation are much more numerous than differences in grammatical form. For instance, there is a consistent tendency for women to produce more standard or rhetorically correct pronunciation which is generally opposed to the omission of certain speech sounds. Girls and women pronounce the standard realization of the verb ending in *-ing* (*reading, visiting, interesting*) more frequently than boys and men who realize *-in* (*readin, visitin, interestin*) more often; female speakers use a more "polite" pattern of assertive intonation (*'Yes. 'Yes, I ↘know.*) while male speakers use a more deliberate pattern (*↘Yes. ↘Yes. I ↘know.*); women tend to use certain intonation patterns that men usually do not (notably "surprise" pattern of high fall-rises and others).

It should be noted here that the capacity of phonetic means to realize sex differences is undoubtedly of immense importance and interest. But further clarification of rather intricate questions can only come from more observations of living speech and would naturally require a detailed examination of a much larger corpus.

Talking about "participants" component we should add one more characteristic that needs consideration. That is the emotional state of the speaker at the moment of speech production which is likely to reveal pronunciation markers which would be a fascinating problem of research.

The last component we have to consider is called **setting**, or **scene**. It is defined by several features. The first of them is a physical orientation of participants. This is to some extent determined by the activity they are engaged in; thus in a lecture the speaker stands at some distance from and facing the addressees whereas in a private chat they are situated vis-à-vis each other. It is quite obvious now that speech over an intercom and speech in face-to-face communication is obviously phonologically distinguishable in a number of ways.

Scenes may be arranged along dimensions: public — private, impersonal — personal, polite — casual, high-cultured — low-cultured, and many other value scales. In large part these diverse

scales seem to be subsumed — for participants as well as analysts — under one bipolar dimension of formal — informal. The kind of language appropriate to scenes on the formal or "high" end of the scale is then differentiated from that appropriate to those on the informal or "low" end. From the acquaintance with English and Russian we can speculate that such differentiation follows universal principles, so that high forms of language share certain properties, such as elaboration of syntax and lexicon, phonological precision and rhythmicality, whereas "low" forms share properties including elipsis, repetition, speed and slurring. If this is so we may expect pronunciation features to be markers of the scene or at least of its position in the formal — informal dimension.

We have attempted to show what is generally understood by an extralinguistic situation and what components may be considered as its constituents. It is, perhaps, easy to see how numerous the main factors determining variation in language usage are. What we are interested in here is variations of phonetic means. A framework for understanding and describing them has to deal with the constant and decisive features of the situational circumstances of language event that are relevant for phonetic level of analysis. It would be true to say that this problem was given a good deal of attention and there is a lot of data obtained with the help of special investigation. It allows us now to single out, a number of factors which result in phonostylistic varieties. They are:

1) the purpose, or the aim of the utterance;
2) the speaker's attitude;
3) the form of communication;
4) the degree of formality;
5) the degree of spontaneity (or the degree of preparedness or the reference of the oral text to a written one).

It should be mentioned right here that the purpose or the aim of the utterance may be called a **phonetic style-forming** factor. All other factors cause modifications within this or that style and that is why may be referred to as **style-modifying** factors.

There is one more thing that should be pointed out here. All these factors are interdependent and interconnected. They are singled out with the purpose of describing phonetic phenomena so that to give a good idea of how the system works.

Now we shall try to consider each of the above-mentioned factors and to explain what sort of phonetic variations may correlate with each of them.

The first factor we should consider is the **purpose of the utterance** and the **subject matter**. As was mentioned earlier, we should assume isomorphy between these two constituents. As the subject matter in large part determines the lexical items, it is the aim of the utterance that affects pronunciation. So in this respect the aim could be spoken of as the strategy of the language user and so it may be called a style-forming factor. On the phonetic level there are variations related to describe what language is being used for in the situation: is the speaker trying to persuade? to exhort? to discipline? Is he teaching, advertising, amusing, controlling, etc.? Each of the above-mentioned variants makes the speaker select a number of functional phonetic means with the purpose of making the realization of the aim more effective. In terms of phonostylistics we may analyse various phonetic ways of reflecting the speaker's purposive role in the situation in which the text occurred.

Another extralinguistic factor most often referred to is the **speaker's attitude** to the situation or to what he is saying or hearing. It is common knowledge that a communicative situation is part of a human being's everyday life situation. So it is natural for a language user to consider the situation from his point of view, revealing his personal interest and participation in what he is saying. The thing he is talking about may satisfy him or not, may please him or not, may elicit his positive or negative response, his emotions. This factor forms a complex bundle with another characteristic feature of oral speech. It is no new notion that any oral text is addressee-oriented. This means that the listener is always concrete, no matter whether communication takes place in public or private atmosphere. This factor can well be said to greatly differ oral form of language realization from its written form. In sum, this factor can be considered a relevant feature of oral speech. Its most common linguistic realization is intonation varieties which can be numerous like varieties of attitudes and emotions an individual can express in various life situations. Concluding we might say that subjective colouring of oral speech is one of its most integral characteristics.

Considering the **form of communication** we should say that nature of participation in the language event results in two pos-

sible varieties: a **monologue** and a **dialogue**. It should be mentioned here that a distinction between a monologue and a dialogue is a fairly conditioned one but we note this distinction for a number of reasons.

Monologuing is the speaking by one individual in such a way as to exclude the possibility of interruption by others. Dialoguing (conversing) is speaking in such a way as to invite the participation of others. It is quite possible for one person to communicate with another and to be the only speaker. Similarly two people can monologue at each other. Monologuing is taken to be the user's medium relationship in those speech situations in which the other people present do not join in or at least are not meant to, except, perhaps, to show approval or disapproval. From the linguistic point of view only one feature is considered to be relevant, i.e. the length of the utterance. Monologues are usually more extended. They are also characterized by more phonetic, lexical and grammatical cohesion. This means that monologues usually have more apparent continuity and self-containedness than conversation. Phonetic organization of either of the two varieties cannot he analogical since each kind is characterized by specific usage of language means of all the three levels.

If we look upon a dialogue and a monologue from psycholinguistic point of view it turns out that the latter are more complex units. It can be proved by the fact that people who find themselves abroad learn dialoguing quite easily, while monologuing requires special training even in the native language. There are a lot of people who use their native language while dialoguing quite adequately but who fail to produce an extended utterance in case they are supposed to.

Among the social factors determining the usage of stylistic means it is the **formality of situation** which is very often referred to.

It is obvious that the process of speaking is very often a recognition of social roles and relationship. The interaction of individuals depends upon their learning and accepting the roles of social behaviour. A certain individual may possess a certain rank in an organization which entitles him to be addressed in a certain fashion by his subordinates, in another way by his equals and in a third way by his superiors. So to come to terms with how roles and relations are realized in language we speak of **formality of discourse**. Formality reflects how the addresser (the speaker) in-

teracts with the addressee (the listener). The relationship is the situational category, the extralinguistic reality.

Formality results from mutual relations among participants in language events. When the relationship is considered on the personal axis, variations ranging from extreme degrees of formality to extreme degrees of informality are relevant. So we might say that spoken language shapes relationships, it defines and identifies them, and it is the category of formality which marks speaking "the right" kind of language.

Considering a communicative situation from the point of view of sociolinguistics we would have to admit that it makes the language user realize the importance and necessity of stylistic demands for his language consciousness. So the dichotomy formal — informal (official — unofficial) can be understood here as the absence or presence of socially realized necessity to follow certain rules while generating an utterance. Informal communication does not make the speaker use obligatory forms, it allows to use them. In discussing this factor we have to admit that the category of formality is generally included into the set of style-differentiating factors applied. It suggests that a language user possesses the ability to speak in different styles. It is the case with people whose professions are highly verbal ones. Such people usually have a very cultural background. In the opposite case the linguistic behaviour of a speaker in a formal situation does not differ from his behaviour in an informal situation.

The influence of this factor upon the phonetic form of speech is revealed by variations of rate of articulation. So we might say that the variable along which styles of speaking differ is mainly sounds. In a formal situation the language user tends to make his speech distinct, thorough and precise. His conscious attention to the form of production makes him choose the full style of pronunciation. The notion of the appropriateness of speaking slow enough is presumably part of the cultural code which insists that it is rude to talk fast and less explicit in such situation. In an informal situation he would prefer less explicit and more rapid form because this form would be more appropriate and would function efficiently as a mode of communication.

It would be a vast oversimplification to assume that there are only two varieties of pronunciation. There are, certainly, many more of them. Indeed there is an infinite number and they have no definable boundaries, each merges imperceptibly into the next.

The two polar varieties that have been mentioned above illustrate the role of degree of formalily as an extralinguistic category.

We should point out here that there is another factor which is very often referred to as the one related to degree of formality. What we mean is the quantity of addressees. This factor determines the distinction of **public** and **non-public** oral texts (14, c. 82). Speech is qualified as public when a speaker is listened to by a group of people. Non-public communication occurs in face-to-face situations. It would be fair to mention that there are no direct correlations between the formality of situation and public — non-public character of presentation.

Linguistic realization of the formality on both segmental and suprasegmental levels is very important for a student of another language. He brings to his-learning task all the habits and knowledge of his mother tongue and his culture. Learning a foreign language involves suspending these and acquiring others. The student, however, will often continue to interpret situations as he would in his own culture. In other words his grasp of formality of situation is incomplete. He may often have a formal way and perhaps a relatively informal one but he may not know the gradation in between the extremes. The result may be an unappropriate usage of intonation structure with the wrong meaning. For example, in Russian the leave-taking *До свидания* can be pronounced both with low rising and low falling tone, which sounds neutral, while in English *Good-bye*! pronounced with a low falling tone sounds fairly rude, while rising tone makes it neutral.

Analysing extralinguistic factors we should add some more to the above-mentioned ones. They are: the **speaker's individuality, temporal provenance, social provenance, range of intelligibility, sex and age** of the speaker. The first thing to know about them is that they are **incidental, concomitant** features. They are characteristic of a language user and can not vary, with very little exception, like all the above-mentioned ones. So they are not deliberately chosen by the speaker at the time of text production, though they may very well serve as his identifying features, thus from this point of view they may be considered informative.

One of the most important style-modifying factors is **the degree of spontaneity**. So if we examine the situations in which

people speak rather than write from the point of view of psychology we can distinguish between those in which they are speaking spontaneously as opposed to those in which they are speaking non-spontaneously as the actor and the lecturer are most often doing. The types of speech situations which lead to spontaneous speech include classroom teaching, television and radio interviews, sporting commentaries on radio and television of an event actually taking place, conversation between experts in a particular field of everyday conversations. We should realize, of course, that between two poles of spontaneity there are a number of more delicate distinctions. For example, the sporting commentator has studied notes and has described this sort of thing before; the people whose professions are highly verbal ones such as the journalist, the politician, the teacher, the lawyer and the stage entertainer become accustomed to producing spontaneous texts and are very often called upon to speak spontaneously about the same area of experience. This means that although they have no written text in front of them there are elements of preparation and repetition in their speaking performances which give them some of the characteristics of written modes. These characteristics are most clearly identified at the phonetic level of analysis.

If an utterance is qualified as fully spontaneous from linguistic point of view it means that its verbal realization is taking place at the moment of speaking, though, of course, it could be thought over in advance. There are situations where this kind of speech activity is not possible. The reason that accounts for that results from three things: a) the utterance is too long to be remembered because, as we know, there are memory constraints; these are utterances produced in the form of lectures, reports, etc.; b) the time of the speaker is limited, so the message has to be conveyed without any hesitation; for example, news over the radio and TV; c) the speaker is realizing somebody else's utterance, for example, reading a piece of prose, quoting, etc. In the above-mentioned cases the utterance or rather its verbal realization is prepared in advance, i.e. written on a sheet of paper. This script version is used at the moment of production — it is read. This type of presentation is qualified as fully prepared. The speaker may use the written variant just to help himself remember the logic succession of the uttered contents. In this case the speech is also fully prepared. In either of the above-mentioned

cases a written text was made with the purpose of being produced orally. It serves as a means of optimization of the process of transmitting the message. This kind of written text should be distinguished from literary written texts which are not to be read aloud though such possibility is not completely excluded. The latter differs from the former in fairly specific organization of lexical and grammatical means which is one of the most important characteristics.

Now if we look upon the degree of spontaneity as a style-modifying factor we should admit that it has a decisive influence on the phonetic organization of an oral text. In other words, the primary distinction that should be drawn is the distinction between two kinds of speech activity, i.e. **speaking** and **reading** (speech without and with reference to the written text). This distinction is included by most phoneticians into the set of influencing factors no matter what aspect of speech is analysed. Actually the two kinds of oral texts differ quite considerably in the way the phonetic means of the language are used. If we want to describe the difference we would have to admit this is where phonetics overlaps with psycholinguistics, a new interdisciplinary subject.

Psycholinguistics as a distinct area of science developed in early sixties though the contact of linguistics and psychology is known to have lasted for more than a hundred years. Language is considered to be an instrument of human psychics and so information from psychology plays an important and practically useful part in the development of linguistics.

It is true that investigation of speech cannot be carried out without considering the structure and organization of activities due to which production and perception of speech take place, the latter being psycholinguistics study area. Language is known to be a human activity. Any human activity can exist in two forms, i.e. in the form of the process and in the form of the product as the result of the process. So it is perfectly clear that it is impossible to interpret phonetic characteristics of living speech without having an idea of the psychic laws of speech perception and speech production.

Before we go on to describing phonetic characteristics of the above-mentioned kinds of speech realizations we would like to

give an idea, a very sketchy one, of what these two processes are like.

The point is that speaking and reading being processes of communication and varieties of speech activity are two different psychic processes, i.e. the sounding utterance is generated in quite different ways. When a written text is being read aloud, a reader has got a verbal realization before his eyes, the script which has been prepared in advance either by himself or by another person. So he need not think of what to say or rather of how to put the ideas into words. The only thing he has to do is to make the graphic symbols sound, i.e. to realize orally the ideas verbally expressed by means of lexics and grammar of the language. Oral realization should be made according to pronunciation rules of a particular language. Besides, if he is to read with comprehension the graphic symbols of the language he must learn to supply those portions of the signals which are not in the graphic representation themselves. He must supply the significant stresses, pauses and tone sequences. In short, the reader should learn to use the phonetic means of a language to be able to express the ideas of the written text adequately. If he has acquired this sort of habit, psychologically he is quite sure of what he is going to produce. As a result the usage of phonetic means is characterized by a very high degree of regularity. Melodic, temporal, rhythmic organization of the text is even; pauses are made at syntactical junctures within and between the sentences. The text sounds loud and distinct (both sounds and intonation are meant).

While spontaneous speech is taking place (when no notes are used) the process of psychic activity consists of two equally important items, i.e. a) the process of searching (remembering) information and the ways of expressing it verbally and b) the process of giving (transmitting) information. The speaker has got an intention to express some ideas and he should choose an adequate linguistic form to express these ideas and in this way to generate the utterance.

Naturally the psychic mechanisms of generating the spoken utterances are quite different. Consequently, phonetic means of the language are also used differently, the difference being the marker of the form of speech activity.

Analysing most important characteristics of a spoken spontaneous text we should first of all mention a phenomenon called

hesitation. The point is that while generating a text a speaker has no time or rather not enough time to make sure of the correct form of the expression he has chosen, because he is simultaneously planning what he is going to say next and also monitoring what he is saying. The wording is taking place simultaneously with pronouncing. Consequently, the speaker hesitates. He hesitates to remember a further piece of information, to choose a correct word, a correct grammar structure and so on. This hesitation phenomenon breaks the regularity and evenness of phonetic form. There appear micropauses, pauses of different length and quality which seldom occur at the syntactic juncture; lengthening of sounds within the words and in the word final position. A spontaneous text is characterized by a number of relevant features both on segmental and suprasegmental levels: various kinds of assimilation, reduction, elision which manifest simplification of sound sequences; uneven rhythm, fragments melody contour, abundance of pauses, varying loudness (from very loud to very low), narrow range of voice, varying tempo (from very fast to very slow).

Among the features distinguishing the two described kinds of speech realization there is one that needs a more detailed description. That is the **delimitation**. In reading pauses occur at the syntactic junctures, so an intonation group coincides with what is called a "syntagm(a)". In a spontaneous text hesitating often prevents the speaker from realizing a full syntagm(a). There may appear a hesitation pause which breaks it, so an intonation group does not coincide with a syntagm(a). Pauses at the end of the phrase are often optional, because the speaker does not realize the rules of phrasing, i.e. of making pauses at the moment of speaking. For example:

Many slang words are invented to cover new situations ... which people feel that the traditional type of words doesn't cover ... phrases that you often find among the teenagers today ... They want to have new styles of dress, new hair styles ... and ... they want to call it something, their own words so that they can identify it in a group.

Summarizing we may say that all the above-mentioned features may be referred to as the main phonetic markers of a spontaneous text. It should be borne in mind that phonetic peculiari-

ties are noticeable together with specific grammatical, mainly syntactical, structures of the utterance.

In teaching English, especially spoken English, one should be well aware of specific phonetic markers of living speech. They are its integral and most natural characteristics. A student of English should be specially taught such peculiarities. Otherwise a spoken text would sound like a read one which would be unnatural and wrong.

Summarizing briefly we may say that we have tried to describe the main extralinguistic situational factors that make the language user choose the appropriate code of phonetic realization of the generated text. The ones that are proposed here are not all that need to be considered. They will, however, form a temporary framework for the description of phonetic styles. We should point out here that their role as **style-modifying factors** is different. Some of them, spontaneity, for example, play the decisive role, others, for example, the number of listeners, seem to have less marking power. The idea that should be realized is that in everyday life situations all of them are interconnected and interdependent and it is normally the combination of several of them that determines the style.

We have established so far that certain non-linguistic features can be correlated with variations of phonetic means. Now we turn to discuss what patterns of variation are interpreted by the listener as modifying a given utterance. In other words what perceptional characteristics of an oral text should be considered to have a style-differentiating value. Here we should note that while comparing things or phenomena we are first of all attracted by differentiating features while common characteristics are taken for granted.

It may be well to begin with a special voice colouring which is sometimes called **speech tamber**. The speaker's attitude to the communicative situation, to what he is saying, the relationships of the partners are revealed by tamber. Tamber combined with non-verbal system of communication, kinesic system, is a marker of some specific attitude, or emotion which would be a permanent characteristic of a language user in a given communicative act.

Delimitation is another characteristic which is commonly referred to as a style-differentiating feature on the perceptive level. As was mentioned earlier, it is the extralinguistic factors, mostly

of psycholinguistic character, that determine the laws and phonetic means of delimitation. Among the latter pauses should be considered and described independently.

There are different patterns of phonetic delimitation of an oral text. The terms most often referred to denote fragments of speech continuum into which the whole text is naturally divided are as follows: a phonopassage (in monologues), a semantic block (in dialogues), a phrase, an intonation group.

A third characteristic which is usually referred to the set of style-differentiating ones is the **accentuation of semantic centres**. By semantic centres we mean parts of the utterance that have a considerable value in realization of functional utterance perspective, i.e. in expressing the main contents of the utterance. It is for the most part intonation that permits to do this. Intonation marks those parts of the utterance contrasting them to the rest of the text. The degree of contrast can vary, the variable being the marker of the style. For example, in spontaneous speech the contrast between accented and non-accented segments of an utterance is greater than in reading, due to the fact that in speech the unaccented elements are pronounced at a lower pitch.

In describing phonetic style-differentiating characteristics (both on segmental and suprasegmental level) we would have to deal with a certain amount of notions such as variations of pitch direction, pitch range, pitch level, loudness, tempo (which includes both pauses and speech rate), rhythm and some others, the meaning of which will become clear as the book proceeds.

Talking about style-differentiating means of phonetic level we should remember that their usage is no aim in itself. Phonetic means of the language in interacting with lexics and grammar optimize the process of realization of ideas by verbal means.

Now that we have described style-forming factors and style-differentiating characteristics it seems logical enough to give a bird's eye view on the problem of **classification of phonetic styles**.

It would be an oversimplification to say that there is a classification admitted by most analysts. However, there is one thing that stands out clearly: while classifying various speech realizations from phonostylistic point of view an analyst should single out criteria that are different from the ones used as a basis for distinguishing functional styles of language. We make it clear by

means of an example. We might suggest that various speech realizations can be grouped on the basis of some most general common phonetic characteristics. Thus such speech realizations as informative reading over radio and TV, a text produced behind the screen, lectures, reports, etc. can be grouped together since they are monologues with reference to written texts. From the point of view of functional stylistics they are referred to different styles: reading over the radio is qualified as a text belonging to the functional sphere of publicistics, while a lecture is referred to scientific functional style. So we may see that the kinds of oral texts traditionally referred to different functional styles are characterized by common phonetic features.

There could be brought about examples of the opposite kind. Texts that are traditionally referred to different functional styles turn out to have identical phonetic organization. For example, the phonetic experiments carried out recently show that texts belonging to different functional styles (an extract from prose — an extract from a guide for tourists) read with identical pragmatic aim do not reveal any difference in phonostylistic aspect.

Among the well-known classifications of phonetic styles we would like to mention the following two. One of them belongs to S.M.Gaiduchic. He distinguishes five phonetic styles: solemn (торжественный), scientific business (научно-деловой), official business (официально-деловой), everyday (бытовой), and familiar (непринужденный). As we may see the above-mentioned phonetic styles on the whole correlate with functional styles of the language. They are differentiated on the basis of spheres of discourse. The other way of classifying phonetic styles is suggested by J.A.Dubovsky who discriminates the following five styles: informal ordinary, formal neutral, formal official, informal familiar, and declamatory. The division is based on different degrees of formality or rather familiarity between the speaker and the listener. Within each style subdivisions are observed. But as the author himself writes it is rather the principle of presenting the texts for description and analysis because "no theory has yet created a completely symmetrical classification of speech acts" (14, p. 6).

Our approach is slightly different. When we consider the problem of classifying phonetic styles according to the criteria described above we should distinguish so far between segmental and suprasegmental level of analysis because some of them (the

aim of the utterance, for example) result in variations of mainly suprasegmental level, while others (the formality of situation, for example) reveal segmental varieties. So for the sake of describing and explaining phonostylistic varieties it seems preferable to consider each level separately until a more adequate system of correlation is found.

The style-differentiating characteristics mentioned above give good grounds for establishing intonational styles suitable not only for sociolinguistic research but also for the purpose of learning and teaching a foreign language.

It might be generally assumed that there are five intonational styles singled out mainly according to the purpose of communication and to which we could refer all the main varieties of the texts generated in everyday communication of a modern man. They are as follows:

1. Informational style.
2. Academic style (Scientific).
3. Publicistic style (Oratorial).
4. Declamatory style (Artistic).
5. Conversational style (Familiar).

But differentiation of intonation according to the purpose of communication only is definitely not enough. As was mentioned above, there are other factors that affect intonation in various extralinguistic situations.

We could add that any style with very little exception is seldom realized in its pure form. Each generated text is likely to include phonetic characteristics of different styles. In such cases we talk about overlapping (fusion) of styles.

To summarize we could say that the distinction of phonetic styles is a purely formal one because any particular theory while in use should control and give meaning to the descriptive statement. So in this respect the suggested classification is near to adequate way of reflecting numerous speech realizations, on the one hand, and on the other, it is the way to understand and interpret the system. If we attempted to systematize all our observations and account for all the options the task would prove daunting. What we need to do in teaching is simply to call attention to the most marked features of the style ignoring the relatively stable features.

We might conclude by saying that we hope this will be a

useful piece of knowledge for a learner because both the foreign student and the would-be teacher of English need to develop the awareness of different phonetic styles of the language. He should be taught to analyse and describe the speaking habits of English people. He should learn to discover the patterns which differentiate style varieties to explain as far as possible why people speak in a certain way and to determine what form of phonetic expression they may choose because the style should be as natural as dress and fit the time, the place and the person. Besides he should be able to teach other people the same things because teaching a spoken foreign language means teaching the ability to communicate, the art of communication being part of the individual's culture. It is for this reason that this textbook includes this chapter. The chapters that follow will be based on the idea that stylistic differentiation of oral speech cannot be ignored in teaching both a foreign language and a mother tongue.

Chapter II

THE FUNCTIONAL ASPECT OF SPEECH SOUNDS

This chapter is concerned with the linguistic function of individual sounds that is "segments of speech".

We are going to discuss here the definitions of the phoneme, methods used in establishing the phonemic structure of a language, the system of English phonemes, modifications of sounds in connected speech and stylistic differentiation of vowels and consonants in English.

THE PHONEME

To know how sounds are produced by speech organs is not enough to describe and classify them as language units. When we talk about the sounds of a language, the term "sound" can be interpreted in two rather different ways. In the first place, we can say that [t] and [d] are two different sounds in English, [t] being fortis and [d] being lenis[1] and we can illustrate this by showing how they contrast with each other to make a difference of meaning in a large number of pairs, such as *tie — die, seat — seed,* etc. But on the other hand if we listen carefully to the [t] in *let us* and compare it with the [t] in *let them* we can hear that the two sounds are also not the same, the [t] of *let us* is alveolar, while the [t] of *let them* is dental. In both examples the sounds differ in one articulatory feature only; in the second case the difference between the sounds has functionally no significance. It is perfectly clear that the sense of "sound" in these two cases is different. To avoid this ambiguity, the linguist uses two separate terms: "**phoneme**" is used to mean "sound" in its contrastive sense, and "**allophone**" is used for sounds which are variants of a phoneme:

[1] The voiceless sounds require greater energy of articulation because they do not have the support of voicing to amplify the sound wave: so [f] for example, is a more energetic sound than [v], as it is implied by the terms "fortis" (= strong) and "lenis" (= weak) which are regularly correlated with voiceless and voiced sounds respectively.

they usually occur in different positions in the word (i.e. in different environments) and hence cannot contrast with each other, nor be used to make meaningful distinctions.

As you probably know from the course of general linguistics, the definitions of the phoneme vary greatly.

The truly materialistic view of the phoneme was originated by the Soviet linguist L.V.Shcherba[1]. According to L.V.Shcherba the phoneme may be viewed as a functional, material and abstract unit. These three aspects of the phoneme are concentrated in the definition of the phoneme suggested by V.A.Vassilyev, who looks upon the phoneme as "...a dialectical unity of these aspects because they determine one another and are thus interdependent" (79, p. 141).

V.A.Vassilyev defined the phoneme like this:

"The segmental phoneme is the smallest (i.e. further indivisible into smaller consecutive segments) language unit (sound type) that exists in the speech of all the members of a given language community as such speech sounds which are capable of distinguishing one word of the same language or one grammatical form of a word from another grammatical form of the same word" (79, p. 136).

The only drawback of this definition is that it is too long and complicated for practical use. The concise form of it could be:

The phoneme is a minimal abstract linguistic unit realized in speech in the form of speech sounds opposable to other phonemes of the same language to distinguish the meaning of morphemes and words.

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[1] «... в живой речи произносится значительно большее, чем мы обыкновенно думаем, количество разнообразных звуков, которые в каждом данном языке объединяются в сравнительно небольшое число звуковых типов, способных дифференцировать слова и их формы, т.е. служить целям человеческого общения. Эти звуковые типы и имеются в виду, когда говорят об отдельных звуках речи. Мы будем называть **их фонемами**. Реально произносимые различные звуки, являющиеся тем частным, в котором реализуется общее (фонема), будем называть оттенками фонем» (40, с. 19).

And further on:

«Чем же определяется это общее? Очевидно, именно общением, которое является основной целью языка, т.е. в конечном счете смыслом: единый смысл заставляет нас даже в более или менее разных звуках узнавать одно и то же. Но и дальше, только такое общее важно для нас в лингвистике, которое дифференцирует данную группу (скажем разные 'а') от другой группы, имеющей другой смысл (например, от союза и', произнесенного громко, шепотом и т.д.). Вот это общее и называется фонемой. Таким образом, каждая фонема определяется прежде всего тем, что отличает ее от других фонем того же языка. Благодаря этому все фонемы каждого данного языка образуют единую систему противоположностей, где каждый член определяется серией различных противоположений как отдельных фонем, так и их групп».

Let us consider the phoneme from the point of view of its three aspects. Firstly, the phoneme is a **functional unit**. As you know from the above in phonetics function is usually understood to mean discriminatory function, that is, the role of the various components of the phonetic system of the language in distinguishing one morpheme from another, one word from another or also one utterance from another.

The opposition of phonemes in the same phonetic environment differentiates the meaning of morphemes and words, e.g. *said — says, sleeper — sleepy, bath — path, light — like.*

Sometimes the opposition of phonemes serves to distinguish the meaning of the whole phrases, e.g. *He was heard badly — He was hurt badly.* Thus we may say that the phoneme can fulfil the **distinctive** function.

Secondly, the phoneme is **material, real** and **objective**. That means that it is realized in speech of all English-speaking people in the form of speech sounds, its allophones. The sets of speech sounds, that is the allophones belonging to the same phoneme are not identical in their articulatory[1] content though there remains some phonetic similarity between them.

As a first example, let us consider the English phoneme [d], at least those of its allophones which are known to everybody who studies English pronunciation. As you know from the practical course of English phonetics, [d] when not affected by the articulation of the preceding or following sounds is a plosive, forelingual apical, alveolar, lenis stop. This is how it sounds in isolation or in such words as *door, darn, down*, etc., when it retains its typical articulatory characteristics. In this case the consonant [d] is called the principal allophone. The allophones which do not undergo any distinguishable changes in the chain of speech are called **principal**. At the same time there are quite predictable changes in the articulation of allophones that occur under the influence of the neighbouring sounds in different phonetic situations. Such allophones are called **subsidiary**.

The examples below illustrate the articulatory modifications of the phoneme [d] in various phonetic contexts:

[d] is slightly palatalized before front vowels and the sonorant [j], e.g. *deal, day, did, did you.*

[1] In view of the lack of any convenient and generally accepted description of acoustic aspect of speech sounds we shall describe allophones in this chapter and elsewhere, in articulatory terms.

[d] is pronounced without any plosion before another stop, e.g. *bedtime, bad pain, good dog*; it is pronounced with the nasal plosion before the nasal sonorants [n] and [m], e.g. *sudden, admit, could not, could meet*; the plosion is lateral before the lateral sonorant [l], e.g. *middle, badly, bad light.*

The alveolar position is particularly sensitive to the influence of the place of articulation of a following consonant. Thus followed by [r] the consonant [d] becomes post-alveolar, e.g. *dry, dream*; followed by the interdental [θ], [ð] it becomes dental, e.g. *breadth, lead the way, good thing.*

When [d] is followed by the labial [w] it becomes labialized, e.g. *dweller.*

In the initial position [d] is partially devoiced, e.g. *dog, dean*; in the intervocalic position or when followed by a sonorant it is fully voiced, e.g. *order, leader, driver*; in the word-final position it is voiceless, e.g. *road, raised, old.*

These modifications of the phoneme [d] are quite sufficient to demonstrate the articulatory difference between its allophones, though the list of them could be easily extended. If you consider the production of the allophones of the phoneme above you will find that they possess three articulatory features in common, all of them are forelingual lenis stops.

Consequently, though allophones of the same phoneme possess similar articulatory features they may frequently show considerable phonetic differences.

It is perfectly obvious that in teaching English pronunciation the difference between the allophones of the same phoneme should be necessarily considered. The starting point is of course the articulation of the principal allophone, e.g. /d-d-d/: *door, double, daughter, dark*, etc. Special training of the subsidiary allophones should be provided too. Not all the subsidiary allophones are generally paid equal attention to. In teaching the pronunciation of [d], for instance, it is hardly necessary to concentrate on an allophone such as [d] before a front vowel as in Russian similar consonants in this position are also palatalized. Neither is it necessary to practise specially the labialized [d] after the labial [w] because in this position [d] cannot be pronounced in any other way.

Carefully made up exercises will exclude the danger of foreign accent.

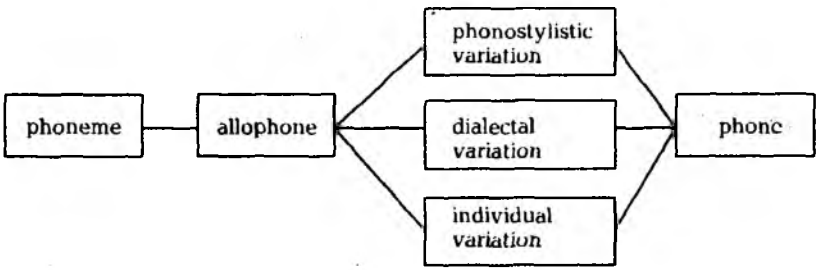
Allophones are arranged into functionally similar groups,

that is groups of sounds in which the members of each group are not opposed to one another, but are opposable to members of any other group to distinguish meanings in otherwise similar sequcences. Consequently allophones of the same phoneme never occur in similar phonetic contexts, they are entirely predictable, according to the phonetic environment, and thus carry no useful information, that is they cannot differentiate meanings.

But the phones which are realized in speech do not correspond exactly to the allophone predicted by this or that phonetic environmenit. They are modified by phonostylistic, dialectal and individual factors. In fact, no speech sounds are absolutely alike.

Phonemes are important for distinguishing meanings, for knowing whether, for instance, the message was *take it* or *tape it*. But there is more to speaker — listener exchange than just the "message" itself. The listener may pick up a variety of information about the speaker: about the locality he lives in, regional origin, his social status, age and even emotional state (angry, tired, excited), and much other information. Most of this other social information comes not from phonemic distinctions, but from phonetic ones. Thus, while phonemic evidence is important for lexical and grammatical meaning, most other aspects of a communication are conveyed by more subtle differences of speech sounds, requiring more detailed description at the phonetic level. There is more to a speech act than just the meaning of the words.

The relationships between the phoneme and the phone (speech sound) may be illustrated by the following scheme:



Thirdly, allophones of the same phoneme, no matter how different their articulation may be, function as the same linguistic unit. The question arises why phonetically naïve native speakers seldom observe differences in the actual articulatory qualities between the allophones of the same phonemes.

The native speaker is quite readily aware of the phonemes of his language but much less aware of the allophones: it is possible, in fact, that he will not hear the difference between two allophones like the alveolar and dental consonants [d] in the words *bread* and *breadth* even when a distinction is pointed out; a certain amount of ear-training may be needed. The reason is that the phonemes have an important function in the language: they differentiate words like *tie* and *die* from each other, and to be able to hear and produce phonemic differences is part of what it means to be a competent speaker of the language. Allophones, on the other hand, have no such function: they usually occur in different positions in the word (i.e. in different environments) and hence cannot be opposed to each other to make meaningful distinctions.

For example the dark [ɫ] occurs following a vowel as in *pill, cold,* but it is not found before a vowel, whereas the clear [l] only occurs before a vowel, as in *lip, like*. These two vowels cannot therefore contrast with each other in the way that [l] contrasts with [r] in *lip — rip* or *lake — rake*, there are no pairs of words which differ only in that one has [ɫ] and the other — [l].

So the answer appears to be in the functioning of such sounds in the language concerned. Sounds which have similar functions in the language tend to be considered the "same" by the community using that language while those which have different functions tend to be classed as "different". In linguistics, as it has been mentioned above, function is generally understood as the role of the various elements of the language in distinguishing the meaning. The function of phonemes is to distinguish the meaning of morphemes and words. The native speaker does not notice the difference between the allophones of the same phoneme because this difference does not distinguish meanings.

In other words, native speakers abstract themselves from the difference between the allophones of the same phoneme because it has no functional value. The actual difference between the allophones of the phoneme [d], for instance, does not affect the meaning. That's why members of the English speech community do not realize that in the word *dog* [d] is alveolar, in *dry* it is post-alveolar, in *breadth* it is dental. Another example. In the Russian word *нога́м* the stressed vowel [а] is more front than it is in the word *нога́ка*. It is even more front in the word *ся-гем*. But Russian-speaking people do not observe this difference

because the three vowel sounds belong to the same phoneme and thus the changes in their qualily do not distinguish the meaning. Sø we have good grounds to slate that the phoneme is an abstract linguistic unit, it is an abstraction from aclual speech sounds, that is allophonic modifications.

As has been said before, native speakers do not observe the difference between the allophones of the same phoneme. At the same time they realize, quite subconsciously of course, that allophones of each phoneme possess a bundle of distinctive features, that makes this phoneme functionally different from all other phonemes of the language concerned. This functionally relevant bundle of articulatory features is called the **invariant** of the phoneme. Neilher of the articulatory features that form the invariant of the phoneme can be changed without affecting the meaning. All the allophones of the phoneme [d], for instance, are occlusive, forelingual, lenis. If occlusive articulation is changed for constrictive one [d] will be replaced by [z], cf. *breed — breeze, deal — zeal*; [d] will be replaced by [g] if the forelingual articulation is replaced by the backlingual one, cf. *dear — gear, day — gay*. The lenis articulation of [d] cannot be substituted by the fortis one because it will also bring about changes in meaning, cf. *dry — try, ladder — latter, bid — bit*. That is why it is possible to state that occlusive, forelingual and lenis characteristics of the phoneme [d] are generalized in the mind of the speaker into what is called the invariant of this phoneme.

On the one hand, the phoneme is objective real, because it is realized in speech in the material form of speech sounds, its allophones. On the other hand, it is an abstract language unit. That is why we can look upon the phoneme as a dialectical unity of the material and abstract aspects. Thus we may state that it exists in the material form of speech sounds, its allophones. Speech sounds are necessarily allophones of one of the phonemes of the language concerned. All the allophones of the same phoneme have some articulatory features in common, that is all of them possess the same invariant. Simultaneously each allophone possesses quite particular phonetic features which may not be traced in the articulation of other allophones of the same phoneme. That is why while teaching pronunciation we cannot ask our pupils to pronounce this or that phoneme. We can only teach them to pronounce one of its allophones.

The articulatory features which form the invariant of the phoneme are called **distinctive** or **relevant**. To extract relevant feature of the phoneme we have to oppose it to some other phoneme in the same phonetic context. If the opposed sounds differ in one articulatory feature and this difference brings about changes in the meaning of the words the contrasting features are called relevant. For example, the words *port* and *court* differ in one consonant only, that is the word *port* has the initial consonant [p], and the word *court* begins with [k]. Both sounds are occlusive and fortis, the only difference being that [p] is labial and [k] is backlingual. Therefore it is possible to say that labial and backlingual articulations are relevant in the system of English consonants.

The articulatory features which do not serve to distinguish meaning are called **non-distinctive, irrelevant** or **redundant**; for instance, it is impossible in English to oppose an aspirated [p] to a non-aspirated one in the same phonetic context to distinguish meanings. That is why aspiration is a non-distinctive feature of English consonants.

As it has been mentioned above any change in the invariant of the phoneme affects the meaning. Naturally, anyone who studies a foreign language makes mistakes in the articulation of particular sounds. L.V.Shcherba classifies the pronunciation errors as **phonological** and **phonetic**.

If an allophone of some phoneme is replaced by an allophone of a different phoneme the mistake is called phonological, because the meaning of the word is inevitably affected. It happens when one or more relevant features of the phoneme are not realized, e.g.:

When the vowel [i:] in the word *beat* becomes slightly more open, more advanced or is no longer diphthongized the word *beat* may be perceived as quite a different word *bit*. It is perfectly clear that this type of mistakes is not admitted in teaching pronunciation to any type of language learner.

If an allophone of the phoneme is replaced by another allophone of the same phoneme the mistake is called phonetic. It happens when the invariant of the pboneme is not modified and consequently the meaning of the word is not affected, e.g.:

When the vowel [i:] is fully long in such a word as *sheep*, for instance, the quality of it remaining the same, the meaning of the word does not change. Nevertheless language learners are

advised not to let phonetic mistakes into their pronunciation. If they do make them the degree of their foreign accent will certainly be an obstacle to the listener's perception.

NOTATION

It is interesting at this stage to consider the system of phonetic notations which is generally termed as "**transcription**". Transcription is a set of symbols representing speech sounds. The symbolization of sounds naturally differs according to whether the aim is to indicate the phoneme, i.e. a functional unit as a whole, or to reflect the modifications of its allophones as well.

The International Phonetic Association (IPA) has given accepted values to an inventory of symbols, mainly alphabetic but with additions. "Agreed values" means, for example that the symbol [g] represents a lenis backlingual stop as in *gate* and not the orthographic "g" of *gin*, which is notated as [ʤ].

The first type of notation, the **broad** or **phonemic** transcription, provides special symbols for all the phonemes of a language. The second type, the **narrow** or **allophonic** transcription, suggests special symbols including some information about articulatory aclivity of particular allophonic features. The broad transcription is mainly used for practical expedience, the narrow type serves the purposes of research work.

The striking difference among present-day broad transcriptions of British English is mainly due to the varying significance which is attached to vowel quality and quantity. Now we shall discuss two kinds of broad transcription which are used for practical purposes in our country. The first type was introduced by D.Jones. He realized the difference in quality as well as in quantity between the vowel sounds in the words *sit* and *seat*, *pot* and *port*, *pull* and *pool*, the neutral vowel and the vowel in the word *earn*. However, he aimed at reducing the number of symbols to a minimum and strongly insisted that certain conventions should be stated once for all. One of these conventions is, for instance, that the above-mentioned long and short vowels differ in quality as well as in quantity. D.Jones supposed that this convention would relieve us from the necessity of introducing special symbols to differentiate the quality of these vowels. That is why he used the same symbols for them. According to D.Jones' notation

English vowels are denoted like this: [ɪ] — [iː], [e] — [æ], [ʌ] — [ɑː], [ɔ] — [ɔː], [u] — [uː], [ə] — [əː]. This way of notation disguises the qualitative difference between the vowels [ɪ] and [iː], [ɒ] and [ɔː], [ʊ] and [uː], [ə] and [ɜː] though nowadays most phoneticians agree that vowel length is not a distinctive feature of the vowel, but is rather dependent upon the phonetic context, that is it is definitely redundant. For example, in such word pairs as *hit — heat, cock — cork, pull — pool* the opposed vowels are approximately of the same length, the only difference between them lies in their quality which is therefore relevant.

More than that. Phonetic transcription is a good basis for teaching the pronunciation of a foreign language, being a powerful visual aid. To achieve good results it is necessary that the learners of English should associate each relevant difference between the phonemes with special symbols, that is each phoneme should have a special symbol. If not, the difference between the pairs of sounds above may be wrongly associated with vowel length which is non-distinctive (redundant) in modern English.

The other type of broad transcription, first used by V.A.Vassilyev, causes no phonological misunderstanding providing special symbols for all vowel phonemes: [ɪ], [iː], [e], [æ], [ɑː], [ʌ], [ɒ], [ɔː], [ʊ], [uː], [ɜː], [ə]. Being a good visual aid this way of notation can be strongly recommended for teaching the pronunciation of English to any audience.

But phonemic representation is rather imprecise as it gives too little information about the actual speech sounds. It incorporates only as much phonetic information as it is necessary to distinguish the functioning of sounds in a language. The narrow or phonetic transcription incorporates as much more phonetic information as the phonetician desires, or as he can distinguish. It provides special symbols to denote not only the phoneme as a language unit but also its allophonic modifications. The symbol [h] for instance indicates aspirated articulation, cf. [kʰeɪt] — [skeɪt]. This type of transcription is mainly used in research work, Sometimes, however, it may be helpful, at least in the early stages, to include symbols representing allophones in order to emphasize a particular feature of an allophonic modification, e.g. in the pronunciation of the consonant [l] it is often necessary to insist upon the soft and hard varieties of it by using not only [l] but also [ɫ] (the indication of the hard variant).

MAIN TRENDS IN PHONEME THEORY

Now that we know what the phoneme is let us view the main trends of the phoneme theory. Most linguists have looked upon the phoneme as one of the basic language units. But not all of them have described it in the same way. The majority of them agree that the phoneme serves to distinguish morphemes and words thus being a functional unit. However, some of them define it in purely "psychological" terms, others prefer physically grounded definitions. Some scholars take into consideration only the abstract aspect of the phoneme, others stick only to its materiality. This has divided the various "schools" of phonology some of which will be discussed below. Views of the phoneme seem to fall into four main classes.

The "**mentalistic**" or "**psychological**" view regards the phoneme as an ideal "mental image" or a target at which the speaker aims. He deviates from this ideal sound partly because an identical repetition of a sound is next to impossible and partly because of the influence exerted by neighbouring sounds. According to this conception allophones of the phoneme are varying materializations of it. This view was originated by the founder of the phoneme theory, the Russian linguist I.A.Baudauin de Courtenay (6) and something like it appears to have been adopted by E.D.Sapir. The same point of view was shared by other linguists, Alf. Sommerfelt (76) for one, who described phonemes as "models which speakers seek to reproduce."

The "psychological", or "mentalistic" view of the phoneme was brought back into favour by generative phonology, and the idea of the phoneme as a "target" has recently been revived, albeit under different terminology by M.Tatham (77).

It is definitely not possible to establish such ideal sounds which do not exist in reality. For this reason the American linguist L.Bloomfield (46) and his followers rejected the view and the English phonetician D.Jones (64), while basically favourable to the view preferred in practice to take a "physical" view. This approach to the phoneme as a clearly idealistic one cannot be taken up by Soviet linguists.

The so-called "**functional**" view regards the phoneme as the minimal sound unit by which meanings may be differentiated without much regard to actually pronounced speech sounds. Meaning differentiation is taken to be a defining characteristic of

phonemes. Thus the absence of palatalization in [ɪ] and palatalization of [l] in English do not differentiate meanings, and therefore [ɪ] and [l] cannot be assigned to different phonemes but both form allophones of the phoneme [l]. The same articulatory features of the Russian [ʌ] and [ʌ'] do differentiate meanings, and hence [ʌ] and [ʌ'] must be assigned to different phonemes in Russian, cf. *мол — моль, лог — лёг*. According to this conception the phoneme is not a family of sounds, since in every sound only a certain number of the articulatory features, that is those which form the invariant of the phoneme, are involved in the differentiation of meanings. It is the so-called distinctive features of the sound which make up the phoneme corresponding to it. For example, every sound of the English word *ladder* includes the phonetic feature of lenisness but this feature is distinctive only in the third sound [d], its absence here would give rise to a different word *latter*, whereas if any other sound becomes fortis the result is merely a peculiar version of *ladder*. The distinctiveness of such a feature thus depends on the contrast between it and other possible features belonging to the same set, that is the state of the vocal cords. Thus when the above-mentioned features are distinctive, lenisness contrasts with fortisness. Some approaches have taken these oppositions as the basic elements of phonological structure rather than the phonemes in the way the phoneme was defined above. The functional approach extracts non-distinctive features from the phonemes thus divorcing the phoneme from actually pronounced speech sounds. This view is shared by many foreign linguists: see in particular the works of N.Trubetskoy (34), L.Bloomfield (46), R.Jakobson (62), M.Halle (62).

The functional view of the phoneme gave rise to a branch of linguistics called "phonology" or "phonemics" which is concerned with relationships between contrasting sounds in a language. Its special interest lies in establishing the system of distinctive features of the language concerned. Phonetics is limited in this case with the precise description of acoustic and physiological aspects of physical sounds without any concern to their linguistic function. The supporters of this conception even recommend to extract phonetics from linguistic disciplines which certainly cannot be accepted by Soviet phoneticians.

A stronger form of the "functional" approach is advocated in the so-called "**abstract**" view of the phoneme, which regards phonemes as essentially independent of the acoustic and physio-

logical properties associated with them, that is of speech sounds. This view of the phoneme was pioneered by L.Hjelmslev and his associates in the Copenhagen Linguistic Circle, H.J.Uldall and K.Togby.

The views of the phoneme discussed above can be qualified as idealistic since all of them regard the phoneme as an abstract conception existing in the mind but not in the reality, that is in human speech, speech sounds being only phonetic manifestations of these conceptions.

The "**physical**" view regards the phoneme as a "family" of related sounds satisfying certain conditions, notably:

1. The various members of the "family" must show phonetic similarity to one another, in other words be related in character.

2. No member of the "family" may occur in the same phonetic context as any other.

The extreme form of the "physical" conception as propounded by D.Jones (64) and shared by B.Bloch and G.Trager (45) excludes all reference to non-articulatory criteria in the grouping of sounds into phonemes. And yet it is not easy to see how sounds could be assigned to the same phoneme on any other grounds than that substitution of one sound for the other does not give rise to different words and different meaning. This approach may seem to be vulgarly materialistic since it views the phoneme as a group of articulatorily similar sounds without any regard to its functional and abstract aspects.

Summarizing we may state that the materialistic conception of the phoneme first put forward by L.V.Shcherba may be regarded as the most suitable for the purpose of teaching.

METHODS OF PHONOLOGICAL ANALYSIS

Now that you have a good idea of what a phoneme is we will try to show what the aim of phonological analysis of speech sounds is; what methods can be applied to this sort of analysis and what characteristics of the quality of sounds are of primary importance in grouping them into functionally similar classes, that is phonemes.

As was stated in the introduction to the course, any phonetician should look upon his science primarily as a study of the spoken form of the language. To study the sounds of a language

from the functional or phonological point of view means to study the way they function, that is, to find out which sounds a language uses as part of its pronunciation system, how sounds are grouped into functionally similar units, termed phonemes. The final aim of the phonological analysis of language is the identification of the phonemes and finding out the patterns of relationship into which they fall as the sound system of that language.

Here we should note that there are two ways of analyzing speech sounds. For example, if we define [s] from the phonological point of view it would be constrictive, forelingual, *fortis*. This would be quite enough to remind us of the general class of realization of this segment. For articulatory description we would need much more information, that is: what sort of narrowing is formed by the tip of the tongue and the alveolar ridge, what is the shape of the tongue when the obstruction is made (a groove in the centre of the tongue while the sides form a closure with the alveolar ridge) and so on. So if the speech sounds are studied from the articulatory point of view it is the differences and similarities of their production that are in the focus of attention, whereas phonological approach suggests studying the sound system which is actually a set of relationships and oppositions which have functional value.

It is common knowledge that different languages have a different number of phonemes and different allophones representing them. So each language has its own system of phonemes. Each member of the system is determinated by all the other members and does not exist without them. The social value of articulatory and acoustic qualities of sounds for the language as a means of communication is different in different languages. In one language community two physically different units are identified as "the same" sound, because they have similar functions in the language system. In another language community they may be classified as different because they perform different linguistic functions. This statement can be illustrated by the following example. Despite their articulatory difference the two English [l] and [t] sounds (clear and dark) are identified by English people as one phoneme because the articulatory difference between them does not affect the meaning. We shall most probably find that the native speakers are not normally aware of the difference between these two sounds. This would come as a surprise to na-

tive speakers that they have difference in English. English speakers do not hear the difference because it is of no importance in the communication process.

In the Russian language a similar, though not identical difference between [л'] and [л] affects the meaning. If [л] in лук is replaced by [л'] the result will be a different word люк. So the Russian [л] and [л'] sounds different on the articulatory level are identified by speakers of Russian as two different phonemes. Analogically, the speakers of Syrian notice a difference between the [t^h] of English *ten* and the [t] of *letter*, a difference which is phonemic in Syrian but only allophonic in English.

There are many other differences which are unimportant on the phonological level of analysis. For example, the realization of the [p] phoneme in the words *pie, spy, lamp-post*. They are all different because of the phonetic context in which they occur: in the word *spy* the sound [p] loses its aspiration, in the word *lamp-post* the first sound [p] is replaced by a glottal stop. But phonologically these sounds are the same. Thus a very important conclusion follows: where languages are concerned everything is relative and statements concerning phonological categories and allophonic variants can usually be made of one variety of a particular language.

So the aim of the phonological analysis is, firstly, to determine which differences of sounds are phonemic and which are non-phonemic and, secondly, to find the inventory of the phonemes of this or that language.

It should be noted that a number of principles have been established for ascertaining the phonemic structure of a language. For an unknown language the procedure of identifying the phonemes of a language as the smallest language units has several stages. The first step is to determine the minimum recurrent segments (segmentation of speech continuum) and to record them graphically by means of allophonic transcription. To do this an analyst gathers a number of sound sequences with different meanings and compares them. For example, the comparison of [stɪk] and [stæk] reveals the segments (sounds) [ɪ] and [æ], comparison of [stɪk] and [spɪk] reveals the segments [st] and [sp] and the further comparison of these two with [tɪk] and [tæk], [sɪk] and [sæk] splits these segments into smaller segments [s], [t], [p]. If we try to divide them further there is no comparison that allows us to divide [s] or [t] or [p] into two, and we have therefore

arrived at the minimal segments. From what we have shown it follows that it is possible to single out the minimal segments opposing them to one another in the same phonetic context or, in other words, in sequences which differ in one element only.

The next step in the procedure is the arranging of sounds into functionally similar groups. We do not know yet what sounds are contrastive in this language and what sounds are merely allophones of one and the same phoneme. There are two most widely used methods of finding it out. They are the distributional method and the semantic method. **The distributional method** is mainly used by phoneticians of "structuralist" persuasions[1]: the fact is that the structuralist model of languages which flourished from the 1930s to the 1950s emphasized "the facts about the language" approach. In fact, these phoneticians underestimated the distinctive function of the phoneme. They consider it possible to discover the phonemes of a language by the rigid application of distributional method, that is to group all the sounds pronounced by native speakers into phonemes according to the two laws of phonemic and allophonic distribution. These laws were discovered long ago and are as follows.

1. Allophones of different phonemes occur in the same phonetic context.

2. Allophones of the same phoneme never occur in the same phonetic context.

The fact is that the sounds of a language combine according to a certain pattern characteristic of this language. Phonemic opposability depends on the way the phonemes are distributed in their occurrence. That means that in any language certain sounds do not occur in certain positions. For example, [h] in English never occurs word finally, while [ŋ] never occurs word initially, or [t^h] never occurs word finally or never follows [s] while [t] (unaspirated) never occurs word initially before stressed vowels. Such characteristics permit identification of phonemes on the grounds of their distribution. For example, if a sound occurs in a certain phonetic context and another one occurs only in a different context no two words of a language can be distinguished solely by means of the opposition between these two. The two sets of phonetic contexts are complementing one another and the two sounds are classed as allophones of the same pho-

[1] The most outstanding among them is Z.Harris.

neme. They are said to be in **complementary distribution**. For example, if we fully palatalize [l] in the word *let* it may sound peculiar to native speakers but the word is still recognized as *let* but not *pet* or *bet*. The allophones lack distinctive power because they never occur in the same phonetic context and the difference in their articulation depends on different phonetic environment, that is why the two phonetically different sounds are perceived as identical ones. To be able to distinguish the meaning the same sounds must be capable of occurring in exactly the same environment as [p] and [b] in *pit* and *bit* or [l] and [d] in *lay* and *day*. Thus two conclusions follow:

1. If more or less different sounds occur in the same phonetic context they should be allophones of different phonemes. In this case their distribution is **contrastive**.

2. If more or less similar speech sounds occur in different positions and never occur in the same phonetic context they are allophones of one and the same phoneme. In this case their distribution is **complementary**.

We would point out here that the identification of phonemes on the ground of complementary distribution is not without its problems. There are cases when two sounds are in complementary distribution but are not referred to the same phoneme. This is the case with the English [h] and [ŋ]. [h] occurs only initially or before a vowel while [ŋ] occurs only medially or finally after a vowel and never occurs initially. In such case the method of distribution is modified by addition of the criterion of phonetic similarity/dissimilarity. The decisions are not made purely on distributional grounds. Articulatory features are taken into account as well.

As we know allophones are supposed to share distinctive features. But the problem is that there is no obvious criterion for deciding whether the two sounds are sufficiently similar or not; how similar they must be in order to qualify them as a single phoneme. Alternatively, how different must they be before we say the sound X and the sound Y cannot be possibly allophones of the same phoneme. Let us consider sounds which are similar on the articulatory level in the words.

[$k^h æp^h$] — aspirated [p] — [$k^h æp^h$]
[$k^h æp^o$] — unreleased voiceless (loss of plosion) — [$k^h æ ʔ$]
[$k^h æb^o$] — unreleased voiced (loss of plosion) — [$k^h æ ʔ$]

Here the articulatory difference between [p^h] and [p] is greater than between [p] and [b]. Yet the native speaker associates the former pair as allophones of [p] but distinguishes the latter pair as two phonemes [p] and [b] (*cap — cab*). To understand what is happening here we must briefly examine speech as a communicative process and we shall see that phonetic similarity can be viewed from two perspectives: one concerning the speaker, the other the listener. For example, [p^h] and [p] are treated by the native speaker as allophones of the same phoneme though both on the auditory and the articulatory levels they are different.

Phonetic similarity can be determined either on the auditory or on articulatory basis. Looking again at the case of [h] and [ŋ] in English we can see now that these sounds are dissimilar both in articulation and in perception, and therefore have no basis at all for being treated as phonetically similar. That makes it very unlikely that they could be members of the same phoneme, though they never occur in the same phonetic context.

So far we have considered cases when the distribution of sounds was either contrastive or complementary. There is, however, a third possibility, namely, that the sounds both occur in a language but the speakers are inconsistent in the way they use them, as for example in the case of the Russian *шкаф — шкап*, *калоши — галоши*. In such cases we must take them as **free variants** of a single phoneme. But since the situation seems somewhat unusual we would take some trouble to find the reason for the variation in the realization of the same phoneme. We could explain it on the basis of "dialect" or on the basis of sociolinguistics. It could be that one variant is a "prestige" form which the speaker uses when he is constantly "monitoring" what he says while the other variant of pronunciation is found in casual or less formal speech. If all explanations fail then we have truly free variants, but this statement is in a sense of admission that the critical factors at work have not yet been explained.

It would be unfair to imply that phoneticians of "structuralist" persuasions take no account of native speakers' opinion. When purely distributional approach failed they considered native speakers' opinion to know if the analyzed words differed in meaning (the so-called differential meaning). So in practice they usually admitted consulting a native speaker. But in their anxiety to emphasize the need for proper (scientific) method and procedures some of them come to regard the procedures as ends in themselves, rather than a means towards understanding language.

There is another method of phonological analysis widely used in Soviet linguistics. It is called **the semantic method**. It is applied for phonological analysis of both unknown languages and languages already described. In case of the latter it is used to determine the phonemic status of sounds which are not easily identified from phonological point of view. The method is based on a phonemic rule that phonemes can distinguish words and morphemes when opposed to one another. The semantic method of identifying the phonemes of a language attaches great significance to meaning. It consists in systematic substitution of the sound for another in order to ascertain in which cases where the phonetic context remains the same such substitution leads to a change of meaning. It is with the help of an informant that the change of meaning is stated. This procedure is called the **commutation test.** It consists in finding **minimal pairs**[1] of words and their grammatical forms. For example, an analyst arrives at the sequence [pɪn]. He substitutes the sound [p] for the sound [b]. The substitution leads to the change of meaning. This would be a strong evidence that [p] and [b] can be regarded as allophones of different phonemes. Minimal pairs are useful for establishing quickly and simply the phonemes of the language. If we continue to substitute [p] for [s], [d], [w] we get minimal pairs of words with different meaning *sin, din, win*. So, [s], [d], [w] are allophones of different phonemes. But suppose we substitute [p^h] for [p] the pronunciation of the word would be wrong from the point of view of English pronunciation norm, but the word would still be recognized as *pin* but not anything else. So we may conclude that the unaspirated [p] is an allophone of the same [p]-phoneme.

As was mentioned earlier, the phonemes of a language form a system of oppositions in which any phoneme is usually opposed to other phonemes in at least one position, in at least one minimal pair. So to establish the phonemic structure of a language it is necessary to establish the whole **system of oppositions**. All the sounds should be opposed in word-initial, word-medial and word-final positions. There are three kinds of oppositions. If members of the opposition differ in one feature the opposition is said to be single, e.g. *pen — ben*. Common features: occlusive — occlusive, labial — labial. Differentiating feature: fortis — lenis.

[1] By a minimal pair we mean a pair of words or morphemes which are differentiated by only one phoneme in the same position.

If two distinctive features are marked, the opposition is said to be double, e.g. *pen — den*. Common features: occlusive — occlusive. Differentiating features: labial — lingual, fortis voiceless — lenis voiced.

If three distinctive features are marked the opposition is said to be triple, e.g. *pen — then*. Differentiating features: occlusive — constrictive, labial — dental, fortis voiceless — lenis voiced.

We should remind you here that the features of a phoneme that are capable of differentiating the meaning are termed as relevant or distinctive. The features that do not take part in differentiating the meaning are termed as irrelevant or non-distinctive. The latter may be of two kinds: a) **incidental** or **redundant** features, for example, aspiration of voiceless plosives, presence of voice in voiced consonants, length of vowels: b) **indispensable** or **concomitant** features, for example, tenseness of English long monophthongs, the checked character of stressed short vowels, lip rounding of back vowels. It is well to remember that a single opposition remains single if its members differ from each other not only in a distinctive feature alone, but also in distinctively irrelevant both incidental and concomitant features.

It would be a mistake to assume that the use of commutation test is without its problems. The difficulty is that the theory is based on the assumption that sounds in any sequence are discrete replaceable units. But a phonemic analysis needs to take account of the overall pattern of sounds and their structural relationship in the language concerned: phonemes are not isolated, unrelated phenomena in the same environments. In reality speech sounds are modified under the influence of context in which they are used. For example, in such sequences as [ækt] and [æpt] the realization of the allophones of [k] and [p] are alike: acoustically on the perception level it is silence of the same duration. Although the two phonemes are in mutual opposition they are not capable of distinguishing the meaning of these two words in a straightforward way. It is the character of transition from [æ] to [k] in the first case, and from [æ] to [p] in the second, that differentiates the meaning. The two opposed phonemes fulfil their distinctive function in an indirect way, that is the differentiation of meaning is provided not by the phonemes themselves but by the adjacent sound. Another example: [bed] — [bet]. In this pair of words it is mainly the length of the proceeding vowel [e] that provides the differentiating characteristic of the word because normally distinc-

tive opposition between voiced and voiceless consonants is neutralized.

Semantic method of phonological analysis is now widely used in Soviet linguistics as well as by overwhelming majority of foreign analysts.

We have indicated so far that the phonological analysis of the sounds of a language is based on such notions as contrastive distribution, complementary distribution, minimal pairs, free variation, phonetic similarity. To these we must add one more concept, that is of native speaker's knowledge. The fact is that all the rules referred to above should account for the intuitions of the native speaker and that is the real reason why we adopt them, for the aim of linguistic analysis is to explain and to take account of native speaker's feelings about his language as far as this is possible. For example, that [ŋ] and [h] are in contrastive distribution is a fact about the language but it would be of little interest in itself and that is not the real reason why we treat these two sounds as separate phonemes. The real reason is that the native speaker feels they are different phonemes.

In the final summing up we might say that the phonemic system of a language is patterned. It is the aim of phonological analysis to attempt to systematize the sounds of a language, that is to group them into functionally similar classes. It is of primary importance for learning and teaching a foreiqn language because the more consistent, logical and concise the description of the phonetic system of a language is the more effective its acquisition will be.

THE SYSTEM OF ENGLISH PHONEMES

The previous section has been concerned with the aims and methods of phonological analysis. In this section we are going to give a brief and readable description of the problems which scholars face trying to describe the English sounds from the functional point of view. We shall try to explain what is understood by **quality** of a sound, what articulatory characteristics may be considered constituents of quality and to determine which of them are important enough to arrest our attention as phonologically relevant.

By way of introduction we would like to remind you that

there are two major classes of sounds traditionally distinguished by phoneticians in any language. They are termed **consonants** and **vowels**. It would be fair to mention that the distinction is based mainly on auditory effect. Consonants are known to have voice and noise combined, while vowels are sounds consisting of voice only. From the articulatory point of view the difference is due to the work of speech organs. In case of vowels no obstruction is made. In case of consonants various obstructions are made. So consonants are characterized by so-called close articulation, that is by a complete, partial or intermittent blockage of the air-passage by an organ or organs. The closure is formed in such a way that the air-stream is blocked or hindered or otherwise gives rise to audible friction. As a result consonants are sounds which have noise as their indispensable and most defining characteristic.

What we have said makes it logic enough to consider each class of sounds independently. So we shall start with consonants.

1. Consonants

On the articulatory level each consonant may be identified by stating two general facts about it:

1) what sort of articulatory posture it is formed by;
2) whereabout in the mouth (or pharynx) it is produced.

Besides these major characteristics the particular quality of a consonant may depend on a lot of other factors, that is by what articulatory organ (or organs) an obstruction is made, how vocal cords work at the moment of production, what cavity is used as a resonator, what is the force of articulatory effect and many others. So in our view the particular quality of a consonant would be best thought of as a complex bundle of features. Each sound is known to have three aspects: acoustic, articulatory and auditory and therefore can be studied on these three levels. For the sake of analysis each aspect can be considered and described independently though we should take it reasonably obvious that there is no sharp dividing line between them. Trying to work out a classification of such complex units as speech sounds an analyst should specify those properties of sounds which are relevant to the subject under discussion, so the attempts to classify sounds should have a theoretical foundation. Besides, each classification should

not only aim at linguistic description but it should be justified from "teaching of a language" point of view. Therefore it should try to include, if possible, both the principal relevant features and the ones that are redundant from phonological point of view but are considerably important for the articulation of the sound. Here we should note that phonological description of sounds will be made in terms of articulatory level.

As to the classification of English consonants there are few ways of seeing the situation.

According to V.A.Vassilyev (79) primary importance should be given to the type of obstruction and the manner of production of noise. On this ground he distinguishes two large classes of consonants:

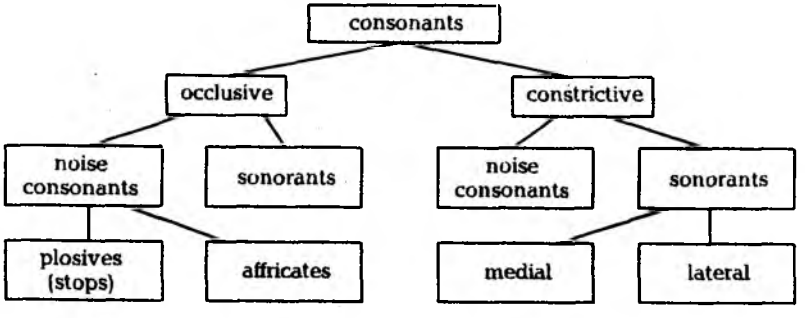
a) occlusive, in the production of which a complete obstruction is formed;

b) constrictive, in the production of which an incomplete obstruction is formed.

The phonological relevance of this feature could be exemplified in the following oppositions:

[ti:]	—	[si:]	tea	—	sea	(occlusive	— constrictive)
[si:d]	—	[si:z]	seed	—	seas	(occlusive	— constrictive)
[pʊl]	—	[fʊl]	pull	—	full	(occlusive	— constrictive)
[bɜʊt]	—	[vɜʊt]	boat	—	vote	(occlusive	— constrictive)

Each of the two classes is subdivided into noise consonants and sonorants. The division is based on the factor of prevailing either noise or tone component in the auditory characteristic of a sound. In their turn noise consonants are divided into plosive consonants (or stops) and affricates. The following scheme might be helpful to understand the system built in accordancc with the above-mentioned order of articulatory characteristics:



Another point of view is shared by a group of Soviet phoneticians (authors of the book among them). They suggest that the first and basic principle of classification should be the degree of noise. Such consideration leads to dividing English consonants into two general kinds:

A — noise consonants

B — sonorants

It is easy to see that the term "degree of noise" belongs to auditory level of analysis. But it is hardly necessary to point out that there is an intrinsic connection between articulatory and auditory aspect of describing speech sounds, such that sometimes it is impossible to account for the former except in terms of the latter. In the above-mentioned case it is the term of auditory level that defines the characteristic more adequately.

Talking about sonorants it is necessary to mention that they are consonants that phoneticians have traditionally a lot of argument about. The point is that sonorants are sounds that differ greatly from all other consonants of the language. This is largely due to the fact that in their production the air passage between the two organs of speech is fairly wide, that is much wider than in the production of noise consonants. As a result, the auditory effect is tone, not noise. This peculiarity of articulation makes sonorants sound more like vowels than consonants. On this ground some of the British phoneticians refer some of these consonants to the class of semivowels, [r], [j], [w], for example. Acoustically sonorants are opposed to all other consonants because they are characterized by sharply defined formant structure and the total energy of most of them is very high. However, on functional grounds, according to their position in the syllable, [r], [j], [w] are included in the consonantal category, but from the point of view of their phonetic description they are more perfectly treated as vowel glides.

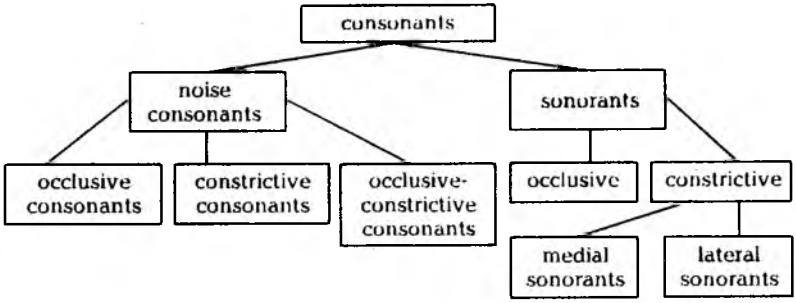
According to the Soviet phoneticians sonorants are considered to be consonants from articulatory, acoustic and phonological point of view and can be classified according to all the principles of classification of consonants.

Looking back on the problem of providing an accurate criterion for estimating classificatory value of various properties displayed by sounds we may say that the great articulatory and acoustic difference of noise consonants and sonorants could be very well relied upon in this respect. The phonological relevance

of this factor (the degree of noise) could be proved by the following oppositions:

[beɪk — meɪk] bake — make (noise consonant — sonorant)
[vi:l — wi:l] veal — wheel (noise consonant — sonorant)

The following scheme may illustrate the point of view shared by the authors of this book:

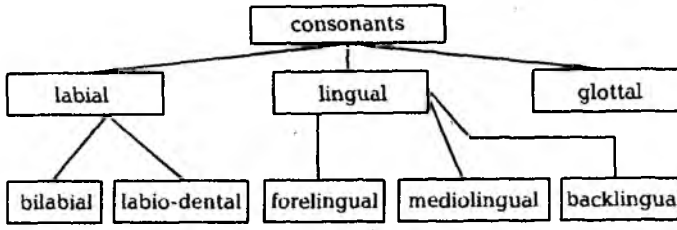


Summarizing briefly we may emphasize the fact that the two above-mentioned characteristics, that is the degree of noise and the manner of articulation are considered essential enough from the classificatory point of view, no matter which of them comes first in the description of the system. We could add that any particular point of view will be judged by its effectiveness. Both above-mentioned classifications are valid, consistent and complete though we could assume that the latter is more preferable for teaching purpose because it is more concise and symmetrical.

The place of articulation is another characteristic of English consonants which should be considered from the phonological point of view. The place of articulation is determined by the active organ of speech against the point of articulation. According to this principle the English consonants are classed into:

1) labial,
2) lingual,
3) glottal.

The class of labial consonants is subdivided into: a) bilabial; b) labio-dental; and among the class of lingual consonants three subclasses are distinguished; they are: a) forelingual, b) mediolingual and c) backlingual. The classification of consonants according to this principle is illustrated in the following scheme:



The importance of this characteristic as phonologically relevant could be proved by means of a simple example. In the system of English consonants there could be found oppositions based on the active organ of speech and the place of obstruction.

[pæn]	— [tæn]	pan	— tan	(bilabial	—	forelingual)
[waɪ]	— [laɪ]	why	— lie	(bilabial	—	forelingual)
[weɪl]	— [jeɪl]	weil	— yale	(bilabial	—	mediolingual)
[pɪk]	— [kɪk]	pick	— kick	(bilabial	—	backlingual)
[les]	— [jes]	less	— yes	(forelingual	—	mediolingual)
[deɪ]	— [geɪ]	day	— gay	(forelingual	—	backlingual)
[saɪ]	— [haɪ]	sigh	— high	(forelingual	—	glottal)
[fi:t]	— [si:t]	feet	— seat	(labio-dental	—	forelingual)

Our next point should be made in connection with another sound property, that is voiced — voiceless characteristic which depends on the work of the vocal cords. We should note that it has long been believed that from the articulatory point of view the distinction between such pairs of consonants as [p, b], [t, d], [k, g], [s, z], [f, v], [ʃ, ʒ], [ʧ, ʤ] is based on the absence or presence of vibrations of the vocal cords, or on the absence or presence of voice or tone component. However, a considerable body of experimental work on physiological and acoustic aspects of these sounds showed that this is not the only difference between them. It is obvious now that there is also energy difference. All voiced consonants are weak (lenis) and all voiceless consonants are strong (fortis). It is worth noticing that now there is a considerable controversy about what phonetic feature is involved in the above-mentioned oppositions. In the intervocalic position, for example, *latter — ladder*, the voicing difference is important, since it is the distinctive feature of the consonants. In word-initial and final positions the pronunciation of consonants traditionally considered to be voiced may well be voiceless. In these positions

it is the energy difference that serves as a differentiating feature. For example, "ca*p*" — "ca*b*", "no*t*" — "no*d*", "pi*ck*" — "pi*g*". In initial position aspiration would be a more important feature for stops, for example "*t*ick" — "*D*ick", "*c*ap" — "*g*ap", "*p*it" — "*b*it". In a word-final position it is the length of the proceeding vowel that would constitute the chief difference (the vowel of "be*a*d" is longer than that of "be*e*t").

In view of what has just been said it is perfectly obvious that the presence or absence of voice in the above-mentioned oppositions is not a constant distinctive feature. Thus it may be said that the oppositions [p — b], [t — d], [k — g], [f — v], [s — z], [ʃ — ʒ], [ʧ — ʤ] are primarily based on energy difference, that is on fortis — lenis articulation, which are their phonologically relevant features. It is for this reason that such characteristics as voiceless — voiced have given place to "fortis" — "lenis" terms.

There is one more articulatory characteristic which is usually included into the set of principles on the basis of which the English consonants are classified, that is **the position of the soft palate**. According to this principle consonants can be **oral** and **nasal**. There are relatively few consonantal types in English which require the lowered position of the soft palate. They are the nasal occlusive sonorants [m], [n] and [ŋ]. They differ from oral plosives in that the soft palate is lowered allowing the escape of air into the nasal cavity.

It is a well-known fact that no differences of meaning in English can be attributed to the presence or absence of nasalization (there are no two consonants in English which differ in the position of the soft palate). It is for this reason that it cannot be a phonologically relevant feature of English consonants, so it is an indispensable concomitant feature of English nasal consonants.

So far we have attempted to show the way the basic articulatory characteristics can be interpreted from the phonological point of view and what classificatory value these characteristics may possess as items of a system.

There are, however, other problems of a phonological character. In the English consonantal system it is the problem of affricates, that is their phonological status and their number. It would be true to say that though it is a long-standing problem it is obvious to anyone who is acquainted with the state of current general theory that its importance is not lessened, nor is the analysts' concern for it diminished.

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The question is: what kind of facts a phonological theory has to explain?

1) Are the English [ʧ, ʤ] sounds monophonemic entities or biphonemic combinations (sequences, clusters)?

2) If they are monophonemic, how many phonemes of the same kind exist in the system of English consonants, or, in other words, can such clusters as [tr, dr], [ts, dz] and [tθ, dð] be considered affricates?

To define it is not an easy or obvious matter. If we tried to analyse all the theories concerning the problem, the task would prove daunting. So we shall try to direct our attention to essentials.

One thing is clear, that is the above-mentioned sounds are complexes because articulatorily and acoustically we can distinguish two elements. The articulatory difference between [ʧ, ʤ] on the one hand, and [t, d] on the other is based on the speed of releasing the obstruction. When [ʧ, ʤ] are pronounced the released stage is performed slower than in case of [t, d]. But this is not the only difference between an affricate and a plosive. Special instrumental analysis shows that there is no synchrony in releasing the obstruction by the central part of the tongue and its sides. It is the centre of the front part of the tongue that comes first in release stage while the sides of the tongue still form a closure. At the next stage the obstruction is released by the sides of the tongue while the central part of the tip forms a narrowing against the alveolar ridge through which the air escapes. The articulatory movement of the parts of the tongue is smooth and continuous. It is difficult to say where the bordering line between the first and the second stage could pass.

Considering phonemic duality of affricates it is necessary to analyze the relation of affricates to other consonant phonemes to be able to define their status in the system of consonants. As you know from the course of practical phonetics, traditionally it is the type of obstruction that serves a basis of comparison. The two main types of obstruction are complete and incomplete. In accordance with such classification affricates cannot be referred to either of the groups, since they are known to consist of both: the closure and the narrowing. That is why it seems justified to single out a group of affricates, or occlusive-constrictive consonants.

Theoretically in each language there might be as many

affricates as there are fricatives but in reality the number of them is limited and there are languages where there are none.

As was mentioned above, the problem of affricates is a point of considerable controversy among phoneticians. According to Soviet specialists in English phonetics, there are two affricates in English, they are: [ʧ, ʤ]. D.Jones points out there are six of them: [ʧ, ʤ], [ts, dz] and [tr, dr] (64). A.C.Gimson increases their number adding two more affricates: [tθ, dð] (57).

We could ask, what might account for such a difference in their opinions?

The fact is that Soviet phoneticians look at English affricates through the eyes of a phoneme theory, according to which a phoneme has three aspects: articulatory, acoustic and functional, the latter being the most significant one. As to British phoneticians, their primary concern is the articulatory-acoustic unity of these complexes, because their aim is limited by practical reasons of teaching English.

Before looking at these complexes from a functional point of view it is necessary to define their articulatory indivisibility. This procedure is generally carried out according to the rules worked out by N.S.Trubetskoy (34). According to his point of view a sound complex may be considered nonphonemic if:

a) its elements belong to the same syllable;

b) it is produced by one articulatory effort;

c) its duration should not exceed normal duration of either of its elements.

Now let us try to apply these criteria to the above-mentioned sound complexes.

Rule I. Syllabic indivisibility. If we compare **the following words**:

butcher	['bʊʧ-ə]	— lightship	['laɪt-ʃɪp]
mattress	['mætr-ɪs]	— footrest	['fʊt-rest]
curtsey	['kɜ:-tsɪ]	— out-set	['aʊt-set]
eighth	[eɪtθ]	— whitethorn	['waɪt-θɔ:n]

we could see that in the words given in the left column the sounds [ʧ], [tr], [ts], [tθ] belong to one syllable and cannot be divided into two elements by a syllable-dividing line. We could compare these complexes to the Russian [ц] phoneme which also cannot belong to different syllables. Cf. [най-'цо], но [съ-'вет-ский]. We could assume that the articulation of the voiced counterparts does not differ from the voiceless ones.

Rule II. Articulatory indivisibility. We might say that special instrumental analysis shows that all the sound complexes in question are homogeneous and have the maximum of articulatory features in common; that is at the beginning of the articulation the organs of speech are in the position of the second fricative element [ʃ], [r], [s], [θ] or [ʒ], [z], but there is a complete obstruction (a closure) formed by the tip and the sides of the tongue against the alveolar ridge and the side teeth. Then the closure is released and the air escapes from the mouth cavity, producing audible friction. In other words the above-mentioned complexes are produced by one articulatory effort.

Rule III. Duration. We should note here that the available data of that kind is not reliable enough. Moreover [ʧ,ʤ] complexes which are considered phonemes by all phoneticians, are not defined properly as to their length or quantity. With G.P.Torsuev (32), we could state that length of sounds depends on the position in the phonetic context, therefore it cannot serve a reliable basis in phonological analysis. He writes that the length of English [ʧ] in the words [ʧɛə] *chair* and [mæʧ] *match* is different. [ʧ] in *match* is considerably longer than [t] in *mat* and may be even longer than [ʃ] in *mash*. This does not prove, however, that [ʧ] is biphonemic.

N.S.Trubetskoy himself admits that this condition is less important than the two previous ones (34).

From what we have said it follows that this rule has no decisive value. That is why we could be certain that the analysed sounds are articulatively indivisible. So potentially they can be considered monophonemic. But in fact they could be considered monophonemic on condition they could enter the "phonological model of the language" (58).

The rules suggested by N.S.Trubetskoy (34) are based on articulatory and phonological indicators. They may well be called the grounds of phonology, because in great many instances they permit us to define the phonemic status of sound complexes. However, doing credit to articulatory and phonological criteria applied in the interpretation of such entities, scholars seem to attach decisive importance to morphonological criterion. According to this criterion a sound complex is considered to be monophonemic if a morpheme boundary cannot pass within it, because it is generally assumed that a phoneme is morphologically indivisible. If we consider [ʧ], [ʤ] from this point of view we

could be secure to grant them a monophonemic status, since they are indispensable. As to [ts], [dz] and [tθ], [dθ] complexes their last elements are separate morphemes [s], [z], [θ], so these elements are easily singled out by the native speaker in any kind of phonetic context. So these complexes do not correspond to the phonological models of the English language and cannot exist in the system of phonemes. The case with [tr], [dr] complexes is still more difficult. According to morphonological criterion they have more grounds than the above-mentioned [ts], [dz], [tθ] and [dθ] to be considered monophonemic because they very often belong to the same morpheme. In such situations analysts apply the native speaker's knowledge, which might serve an additional criterion, for any linguistic analysis can be largely based on intuition about the rules to be recognized, combinations to be noted and results to be obtained. So talking about [ʧ], [ʤ], if we assume that in the word *chair* [t] is dispensable leaving *share* [ʃɛə] and [ʃ] is dispensable leaving *tear* [tɛə] and therefore it is a sequence of [t] + [ʃ], the native speaker's feeling cannot accept it as anything but a unit. Perhaps the reason is partly to do with [ʤ] which cannot be treated so easily as [ʧ]. If we dispense [d] in [ʤeɪ], for example, we could get [ʒeɪ], but [ʒ] is not a permitted initial phoneme in English because it occurs only in a few borrowed words. So it is not satisfactory, because it would be odd to treat one of the correlated pairs as a sequence, and the other as a unit. Another reason: if we treat [ʧ], [ʤ] as sequences what other sequences of this type would we find in the system of English consonants? Parallel to the [dr] complex there are [kr], [pr], [θr]. But there is nothing parallel to [ʧ] and similarly to [ʤ]. So it may be said that the native speaker does not regard [ʧ], [ʤ] as composite sounds, that is composed of distinctive elements. On the other hand, [tr], [dr] are not normally regarded as anything but sequences. A.C.Gimson himself admits that he grants them monophonemic status on the basis of the articulatory criterion (57).

By way of conclusion we could say that the two approaches that have been adopted towards this phenomenon are as follows: the finding that there are eight affricates in English [ʧ], [ʤ], [tr], [dr], [ts], [dz], [tθ], [dθ] is consistent with an articulatory and acoustic view, because in this respect the entities are indivisible. This is the way the British phoneticians see the situation. This point of view underestimates the phonological aspect and is in a way an extremity.

On the other hand, Soviet phoneticians are consistent in looking at the phenomenon from the morphological and the phonological point of view which allows them to categorize [ʧ], [ʤ] as monophonemic units and [tr], [dr], [ts], [dz], [tθ], [dθ] as biphonemic complexes. However, this point of view reveals the possibility of ignoring the articulatory and acoustic indivisibility of the complexes. In this case the pronunciation peculiarities of these complexes are not analysed properly. It must be distinctly understood that that is a genuine articulatory difference between phonemes [t], [d] pronounced in combination with other sounds and the [t], [d] as parts of clusters [tr], [dr]. It requires special attention and training. On this account textbooks in practical phonetics should include effective instructions on teaching the pronunciation of these sound complexes.

So far we have attempted to show how a fairly general problem of interpreting the system of English consonants is solved, what essential complication exists and what kind of criteria can be used in solving these problems.

Summarizing what have been described we could state that with the majority of Soviet specialists in English phonetics we consider relevant the following articulatory features:

1) type of obstruction,
2) place of obstruction and the active organ of speech,
3) force of articulation.

As was mentioned in the previous section, the phonetic system of a language is patterned. So we have tried to show what articulatory features could serve as a criterion for grouping consonants into functionally similar classes. The above-mentioned articulatory characteristics are undoubtedly the prime ones as they specify the essential quality of a consonant which is enough to describe it as an item of a system. On this level of analysis it is the point where the distinction between consonants becomes phonemic that matters. However, if we approach the matter from "teaching pronunciation" point of view it is natural we should want to gain some additional information about the articulation of a consonant, about such delicate distinctions that make the description complete from the articulatory point of view, for example, if the consonant is apical or dorsal; if it is dental, alveolar, post-alveolar, or palato-alveolar; if it is oral or nasal; if the narrowing is flat or round and a lot of others. These characteristics are of no importance from phonological point of

view but they provide necessary and instructive information for comparison between the English consonants and those of the mother tongue and so are considerably important for teaching purposes. It is for this reason that these characteristics are normally included into the classification.

2. Modifications of Consonants in Connected Speech

Hitherto, we have looked at sounds individually. But language in everyday use is not conducted in terms of isolated, separate units; it is performed in **connected sequences** of larger units, in words, phrases and longer utterances. Now we shall be concerned with what happens to sounds not only within words, but also when the words are connected into larger units. There are actually some remarkable differences between the pronunciation of a word in isolation and of the same word in a block of connected speech. These changes are mostly quite regular and predictable. Still the problem of defining the phonemic status of sounds in connected speech is by far too complicated because of the numerous modifications of sounds in speech. These modifications are observed both within words and at word boundaries. As you may know from the practical course of phonetics, speech sounds influence each other in the flow of speech. As a result of the intercourse between consonants and vowels and within each class there appear such processes of connected speech as assimilation, accommodation, vowel reduction and elision which is sometimes termed **deletion.**

The adaptive modification of a consonant by a neighbouring consonant in the speech chain is known as **assimilation**, e.g the alveolar [t] followed by the interdental [θ] becomes dental: *eighth, at three.*

The term **accommodation** is often used by linguists to denote the interchanges of "vowel + consonant type" or "consonant + vowel type", for instance, some slight degree of nasalization of vowels preceded or followed by nasal sonorants: *never, men*; or labialization of consonants preceding the vowels [o] and [y] in Russian: *больно, конь, думать, лучше.*

One of the wide-spread sound changes is certainly **vowel reduction**. Reduction is actually qualitative or quantitative weakening of vowels in unstressed positions, e.g. *board — blackboard, man — postman.*

Elision or complete loss of sounds, both vowels and consonants, is often observed in English. Elision is likely to be minimal in slow careful speech and maximal in rapid relaxed colloquial forms of speech.

The processes involved cannot be neglected in defining the phonemic status of speech sounds. These phenomena manifest the economy of pronouncing efforts on the part of the speaker. The speaker and the listener are two participants of communication. The addresser's aim is to inform the addressee of something. The latter's wish is to comprehend the idea. The simplifications themselves go quite unnoticed by the listener, as they do not affect the meaning. The listener is mainly interested in the meaning the speaker aims to convey and not in the precise phonetic organization of a block of connected speech. So long as the meaning is recognizable, the listener is satisfied. We have to regard the omissions and reductions then as a kind of economy on the part of the speaker, who aims not to give more information than necessary. The speaker assumes usually correctly that the listener will not notice the omissions. A question then arises whether such kind of simplification leads to excessive ambiguity. On the face of it, one would expect a great deal of ambiguity to arise, particularly in cases where a whole word is reduced (weakened) to a single sound, for example, [z] for the whole word *has*. The load carried by a single sound can become enormous. [z], for example, can represent the reduced forms of *has*, *is* and even *does*, the plural and possessive for nouns, the third person singular for verbs. The sound [ə] can represent the reduced forms of *are*, *or*, *her* and sometimes *of* (as in *six o'clock*), as well as the indefinite article *a*, the comparative degree of adjectives (*shorter*), the suffix of a noun (*teach-er*), etc. But in spite of the meaning load carried by the same sounds, ambiguity rarely arises because the syntactic functions are quite different and the context makes the intention clear. On hearing a sequence like [z'ɲɪk 'kʌmɪŋ] the listener unmistakably reconstructs: *Is Nick coming?*; in [ðə 'bɔɪz 'skeɪt] the sound [z] must be the plural form, while in [ðə 'bɔɪz 'dʌn ɪt] it must be derived from *has*.

Now let us see which qualitative features of consonant sounds may be changed in the process of their interrelation in a speech chain.

Consonants are modified according to the place of articulation. Assimilation takes place when a sound changes its charac-

ter in order to become more like a neighbouring sound. The characteristic which can vary in this way is nearly always the place of articulation, and the sounds concerned are commonly those which involve a complete closure at some point in the mouth that is plosives and nasals which may be illustrated as follows:

1. The dental [t], [d], followed by the interdental [θ], [ð] sounds (partial regressive assimilation when the influence goes backwards from a "later" sound to an "earlier" one), e.g. "eig*hth*", "a*t th*e", "brea*dth*", "sai*d th*at".

2. The post-alveolar [t], [d] under the influence of the post-alveolar [r] (partial regressive assimilation), e.g. "*tr*ee", "*tr*ue", "tha*t r*ight word", "*dr*y", "*dr*eam", "the third room".

3. The post-alveolar [s], [z] before [ʃ] (complete regressive assimilation), e.g. *horse-shoe* ['hɔːʃʃuː], *this shop* [ðɪʃ 'ʃɒp], *does she* ['dʌʃʃɪː).

4. The affricative [t + j], [d + j] combinations (incomplete regressive assimilation), e.g. *graduate* ['grædʒueɪt], congratulate [kən'grætʃʊleɪt], *did you* ['dɪdʒuː], *could you* ['kʊdʒuː], *what do you say* ['wɒtʒuː'seɪ].

It is easy to see from the examples above that the sounds commonly changing their place of articulation are alveolar stops. Nasal consonants are not less susceptible to assimilation. The place of articulation of nasals also varies according to the consonant that follows, e.g.

In camp [m] remains bilabial before another bilabial as well as in *man* before a vowel.

Similarly in *cent* [n] is alveolar before another alveolar as well as in *net*.

But in "sy*mph*ony" [m] is actually labio-dental followed by the labio-dental [f].

In "seve*nth*" [n] becomes dental, before the interdental [θ].

In "pi*nch*" [n] is palato-alveolar corresponding to the following affricate [ʧ].

In "tha*nk*" [n] assimilates to the velar consonant becoming velar [ŋ].

We should like to note here that by analogy with alveolar consonants nasal assimilation operates not only within the morpheme as in "tha*nk*" but also across syllable boundaries as in "sy*mph*ony", across morpheme boundaries, for example, in prefixes *in*-, *un*- as in "incomplete", "ungrateful"; "impractical",

where [n] assimilates to [p] and becomes bilabial [m], in the stressed prefix *con-* as in "co*n*quer". Assimilation of nasals seems to be also optional across word boundaries, e.g. *in case, in fact.*

The manner of articulation is also changed as a result of assimilation, which may be illustrated as follows:

1. Loss of plosion. In the sequence of two plosive consonants the former loses its plosion: *glad to see you, great trouble,* and *old clock* (partial regressive assimilations).

2. Nasal plosion. In the sequence of a plosive followed by a nasal sonorant the manner of articulation of the plosive sound and the work of the soft palate are involved, which results in the nasal character of plosion release: "su*dden*", "no*t n*ow", "a*t n*ight", "le*t m*e see" (partial regressive assimilations).

3. Lateral plosion. In the sequence of a plosive followed by the lateral sonorant [l] the noise production of the plosive stop is changed into that of the lateral stop: "se*ttle*", "ta*ble*", "a*t l*ast" (partial regressive assimilations). It is obvious that in each of the occasions one characteristic feature of the phoneme is lost.

The voicing value of a consonant may also change through assimilation. This type of assimilation affects the work of the vocal cords and the force of articulation. In particular voiced lenis sounds become voiceless fortis when followed by another voiceless sound, e.g.:

1. Fortis voiceless/lenis voiced type of assimilation is best manifested by the regressive assimilation in such words as *newspaper* (*news* [z] + *paper*); *goosebeny* (*goose* [s] + *berry*). In casual informal speech voicing assimilation is often met, e.g. *have to do it* ['hæf tə 'du:], *five past two* ['faɪf pa:st 'tu:]. The sounds which assimilate their voicing are usually, as the examples show, voiced lenis fricatives assimilated to the initial voiceless fortis consonant of the following word. Grammatical items, in particular, are most affected: [z] of *has, is, does* changes to [s], and [v] of *of, have* becomes [f], e.g.

She's *f*ive. *Of* course.
She has *f*ine eyes. You've *s*poiled it.
Does *P*ete like it?

2. The weak forms of the verbs *is* and *has* are also assimilated to the final voiceless fortis consonants of the preceding word thus the assimilation is functioning in the progressive direction, e.g.

Your aunt*'s* coming.
What*'s* your name?
(partial progressive assimilation)

3. English sonorants [m, n, r, l, j, w] preceded by the fortis voiceless consonants [p, t, k, s] are partially devoiced, e.g. "*sm*art", "*sn*ake", "*tr*ay", "*qu*ick", "*tw*ins", "*pl*ay", "*pr*ide" (partial progressive assimilation).

The voiced/voiceless type of assimilation is well developed in the Russian language, e.g. *сдавать, сбросить, французский, абсолютный*. The positional devoicing of final consonants is especially constant, e.g. *клуб, снег, мороз*.

It should be noted that the interference of the Russian voiced/voiceless regressive type of assimilation results in a typical mistake in English: "blac*k d*og", "thi*s d*ay", "get*s d*ark", "mu*ch b*etter", "let*'s g*o". In English assimilation usually results in changing voiced lenis consonants into voiceless fortis, e.g. *of course* [əf'kɔ:s]. The change of voiceless fortis consonants into voiced lenis as a result of assimilation is not typical. Thus teachers of English should be aware of it and be ready with special exercises to prevent the errors.

Lip position may be affected by the accommodation, the interchange of consonant + vowel type. Labialisation of consonants is traced under the influence of the neighbouring back vowels (accommodation), e.g. *pool, moon, rude, soon, who, cool*, etc. It is possible to speak about the spread lip position of consonants followed or preceded by front vowels [i:], [ɪ], e.g. *tea — beat; meet — team; feat — leaf, keep — leak; sit — miss* (accommodation).

The position of the soft palate is also involved in the accommodation. Slight nasalization as the result of prolonged lowering of the soft palate is sometimes traced in vowels under the influence of the neighbouring sonants [m] and [n], e.g. *and, morning, men, come in* (accommodation).

To summarize so far, assimilation affecting the place of articulation is considered to be most typical of the English sound system and assimilation affecting the work of the vocal cords (voiced/voiceless type) is most typical of the Russian speech.

It is to be noted that the described allophonic realizations of phonemes are marked in Received Pronunciation as obligatory and stable for all the members of the speech community in every

phonetic style. It is perfectly natural that all sorts of sound adaptation are more frequent in informal colloquial flow of speech than in formal speech. This tendency is a matter of style, not correctness. In informal casual discourse assimilation involves the alveolar stops [t], [d] before another stop at border junctions, e.g.

that place [ðæp 'pleɪs]	Or:	hard problem ['hɑ:b 'prɒbləm]
that book ['ðæp 'bʊk]		hard blow ['hɑ:b 'blǝʊ]
that kind ['ðæk 'kaɪnd]		hard case ['hɑ:g 'keɪs]
that golfer ['ðæk 'gɒlfə]		hard ground ['hɑ:g 'graʊnd]

In these examples [t] retains its voicelessness, [d] accordingly retains its voiced character, but both of them shift their articulation in symphony with the articulation of the following stop. It should be noted that the velar stops [k], [g] are not subjected to the assimilation of this kind.

The alveolars [s], [z] and [t], [d] assimilate in informal casual speech more often than in slow careful speech to palato-alveolars when followed by the palatal [j], e.g.

face your friend ['feɪʃ jə 'frend]
as you like [əʒ ju 'laɪk]
can't you do it ['kɑ:ntʃə 'du: ɪt]
on duty [ɒn 'ʤu:tɪ]

The examples above illustrate the changes affecting the place of articulation.

In informal casual speech complete type of assimilation is often observed, e.g.

ten minutes ['ten 'mɪnɪts]
nice shoes ['naɪʃ 'ʃu:z]
one more ['wʌm 'mɔ:]
good-bye ['gʊb 'baɪ]
let me ['lem mi·]

We would like to point out right here that elision or complete loss of sounds, both vowels and consonants, is observed in the structure of English words. It is typical of rapid colloquial speech and marks the following sounds:

1. Loss of [h] in personal and possessive pronouns *he, his, her, him* and the forms of the auxiliary verb *have, has, had* is widespread, e.g. *What has he done?* ['wɒt əz i· ˌdʌn].

2. [l] tends to be lost when preceded by [ɔ:], e.g. *always* ['ɔ:wɪz], *already* [ɔ:'redɪ], *all right* [ɔ: 'raɪt].

3. Alveolar plosives are often elided in case the cluster is followed by another consonant, e.g. *next day* ['neks 'deɪ], *just one* ['ʤʌs 'wʌn], *mashed potatoes* ['mæʃ pə'teɪtəʊz]. If a vowel follows, the consonant remains, e.g. *first of all, passed in time*. Whole syllables may be elided in rapid speech: *library* ['laɪbrɪ], *literary* ['lɪtrɪ].

Examples of historical elision are also known. They are initial consonants in *write, know, knight,* the medial consonant [t] in *fasten, listen, whistle, castle.*

In sum, we may say that in the process of speech the degree of sound modifications may be different, varying from partial assimilation, when one sound feature is modified, like in "ten*th*" (alveolar [n] becomes dental) to actual loss of a sound. For example: *listen* ['lɪsn], *next day* ['neks 'deɪ], complete sound adaptation being the intermediate state: *ten minutes* ['tem 'mɪnɪts], *nice shoe* ['naɪʃ'ʃu:].

Describing the interrelation of sounds in cannected speech we would like to mention one more remarkable phenomenon.

While the elision is a very common process in connected speech, we also occasionally find sounds being inserted. When a word which ends in a vowel is followed by another word beginning with a vowel, the so-called intrusive "r" is sometimes pronounced between the vowels, e.g.

Asia and Africa ['eɪʃər ənd 'æfrɪkə]
the idea of it [ðɪ:aɪ'dɪər əv ɪt]
ma and pa ['mɑ:r ənd 'pɑ:]

The so-called linking "r," is a common example of insertion, e.g. *clearer, a teacher of English.*

Thus it is clear that the linking and intrusive [r] are both part of the same phonetic process of [r] insertion.

When the word-final vowel is a diphthong which glides to [ɪ] such as [aɪ], [eɪ] the palatal sonorant [j] tends to be inserted, e.g *saying* ['seɪjɪŋ]; *trying* ['trajɪŋ].

In case of the [ʊ]-gliding diphthongs [əʊ], [aʊ] the bilabial sonorant [w] is sometimes inserted, e.g. *going* ['gəuwɪŋ], *allowing* [ə'laʊwɪŋ].

The process of inserting the sonorants [r], [j] or [w] may seem to contradict the tendency towards the economy of articulatory efforts. The explanation for it lies in the fact that it is apparently easier from the articulatory point of view to insert those sounds than to leave them out.

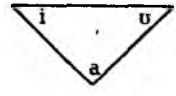
The insertion of a consonant-like sound, namely a sonorant, interrupts the sequence of two vowels (VV) to make it a more optional syllable type: consonant + vowel (CV). Thus, insertion occurs in connected speech in order to facilitate the process of articulation for the speaker, and not as a way of providing extra information for the listener.

Now by way of conclusion we should like to say that we understand the sound quality as a set of characteristics which are in constant interrelation and compensation. In case one of the features of a phoneme is lost there remains a sufficient number of characteristics of a phoneme and its status and function are not lost. Thus modifications of sounds in a speech chain are of allophonic character, that is they are realizations of allophones of phonemes.

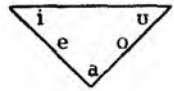
3. Vowels

Talking about vowels requires first to specify their articulatory and acoustic characteristics. As was mentioned earlier, vowels unlike consonants are produced with no obstruction to the stream of air, so on the perception level their integral characteristic is naturally tone, not noise.

It would be interesting to know that a minimum vowel system of a language is likely to take the form of



The most important characteristic of the quality of these vowels is that they are acoustically stable. They are known to be entirely different from one another both articulatorily and acoustically. Consequently they may well be said to form boundaries of "phonetic field of vowels" in a modern man's life. Thus they display the highest degree of unlikeness and so maximum of abilities of people as regards to vowels. We could add that the commonest vowel system adds two other vowels to this minimum triangle to give a five vowels system of the type:



In the matter of the English language it would be fair to mention that due to various reasons it has developed a vocalic system of a much larger number of phonemes.

The quality of a vowel is known to be determined by the size, volume, and shape of the mouth resonator, which are modified by the movement of active speech organs, that is the tongue and the lips. Besides, the particular quality of a vowel can depend on a lot of other articulatory characteristics, such as the relative stability of the tongue, the position of the lips, physical duration of the segment, the force of articulation, the degree of tenseness of speech organs. So vowel quality could be thought of as a bundle of definite articulatory characteristics which are sometimes intricately interconnected and interdependent. For example, the back position of the tongue causes the lip rounding, the front position of the tongue makes it rise higher in the mouth cavity, the lengthening of a vowel makes the organs of speech tenser at the moment of production and so on. From what we have said it follows that isolation and distinctions of the above-mentioned articulatory features are done only for the sake of analysis with the purpose of describing the vocalic system of the English language.

The analysis of the articulatory constituents of the quality of vowels allowed phoneticians to suggest the criteria which are conceived to be of great importance in classificatory description. First to be concerned here are the following criteria termed:

a) stability of articulation;
b) tongue position;
c) lip position;
d) character of the vowel end;
e) length;
f) tenseness.

In the part that follows, each of the above-mentioned principles will be considered from phonological point of view.

Stability of articulation specifies the actual position of the articulating organ in the process of the articulation of a vowel. There are two possible varieties: a) the tongue position is stable; b) it changes, that is the tongue moves from one position to an-

other. In the first case the articulated vowel is relatively pure, in the second case a vowel consists of two clearly perceptible elements. There exists in addition a third variety, an intermediate case, when the change in the tongue position is fairly weak. So according to this principle the English vowels are subdivided into:

a) monophthongs,
b) diphthongs,
c) diphthongoids.

Though the interpretation we have just given is an obvious matter for Soviet phoneticians it does not mean that this way of seeing the situation is shared by British phoneticians. A.C.Gimson, for example, distinguishes twenty vocalic phonemes which are made of vowels and vowel glides (57). Seven of them are treated as short phonemes: [ɪ], [e], [æ], [ɒ], [ʊ], [ʌ], [ə] and thirteen as long ones: [ɑ:], [ɔ:], [ɜ:] [i:], [u:], [eɪ], [ɜʊ], [aɪ], [aʊ], [ɒʊ], [ɪə], [ɛə], [ʊə] five of which are considered relatively pure: [ɑ:], [ɔ:] [ɜ:], [i:], [u:]; the rest are referred to long phonemes with different glides: [eɪ], [aɪ], [ɒɪ] with a glide to [ɪ]; [ɜʊ], [aʊ] with a glide to [ʊ]; and [ɪə], [ɛə], [ʊə] with a glide to [ə]. It is easy to see that this way of presenting the system does not reveal the actual difference between long monophthongs and long diphthongoids and consequently we could say that it fails to account adequately for more delicate distinctions. Here we have to admit that though it is not a decisive difference this is the case when explicit information about distinguishing between different degrees of instability is practically useful for teaching purpose. For the learner of English it is important to know that the vowels [i:] and [u:] are diphthongized in modern English and the tendency for diphthongization is becoming gradually stronger.

At this point we are ready to consider the question of the phonemic status of English diphthongs. Diphthongs are complex entities just like affricates described in the previous section, so essentially similar complications are known to exist with them. The question is whether they are monophonemic or biphonemic units. It is not the lack of evidence that does not enable to answer it. We might say that now there is much available data obtained with the help of the computer equipment. Though the problem has been given a lot of attention up to now it has been neither completely discounted nor salisfactorily explained. The reason that accounts for the present situation could be formu-

lated in the following way: it is impossible to find a simple and logic criterion which might serve as a basis for a decision.

Soviet scholars grant the English diphthongs monophonemic status on the basis of arliculatory, morphonological and syllabic indivisibility as well as the criteria of duration and commutability.

As to articulatory indivisibility of the diphthongs it could be proved by the fact that neither morpheme nor syllable boundary that separate the nucleus and the glide can pass within it, for example: ['seɪ-ɪŋ] *saying*, ['kraɪ-ɪŋ] *crying*, [ɪn-'ʤɔɪ-ɪŋ] *enjoying*, ['slɜʊ-ə] *slower*, ['plɜʊ-ɪŋ] *ploughing*, ['klɪə-rə] *clearer*, ['ɛə-rɪŋ] *airing*, ['pʊə-rə] *poorer*. The present study of the duration of diphthongs shows that the length of diphthongs is the same as that that characterizes the English long monophthongs in the same phonetic context, cf. [saɪt — siːt], [kɜʊt — kɔːt]. Finally the application of commutation test proves the monophonemic status of diphthongs because any diphthong could be commutated with practically any vowel. It could be exemplified in the following oppositions:

[baɪt — bɪt] bite — bit
[baɪt — bʌt] bite — but
[baɪt —[ʧ] bɔːt] bite — bought

and so on.

Monophonemic character of English diphthongs is proved by native speakers' intuition, who perceive these sound complexes as a single segment.

The above-mentioned considerations make Soviet linguists V.A.Vassilyev (79), L.R.Zinder (16) treat English diphthongs as monophonemic entities.

The suggestion that English diphthongs are monophonemic is necessary not only for linguistic purpose; accepting that finding is also of practical importance in teaching English as a foreign language, since in Russian there are no diphthongs or diphthongoids as phonemic entities. Such combinations of sounds as [йа, йо, йу], [ой, ай], [ау, уа] (*яд, йог, юг, рой, край, мяукать, вуаль*), and others are biphonemic clusters, consisting either of a vowel and the Russian sonorant [й] or two vowels. Both elements in the clusters are equally energetic and distinct. So special attention should be given to the pronunciation of English diphthongs which consist of two elements, the first of which, the nucleus, being strong and distinct and the second, the glide, being very weak and indistinct.

Another principle we should consider from phonological point of view is **the position of the tongue**. For the sake of convenience the position of the tongue in the mouth cavity is characterized from two aspects, that is the horizontal and vertical movement.

According to the horizontal movement Soviet phoneticians distinguish five classes of English vowels. They are:

1) front: [iː], [e], [eɪ], [æ], [ɛ(ə)];
2) front-retracted: [ɪ], [ɪ(ə)];
3) central: [ʌ] [ɜː] [ə], [ɜ(ʊ)], [ɛ(ʊ)];
4) back [ɒ], [ɔː], [uː], [ɑː];
5) back-advanced: [ʊ], [ʊ(ə)].

A slightly different approach seems to have been taken by British phoneticians. They do not single out the classes of front-retracted and back-advanced vowels. So both [iː] and [ɪ] vowels are classed as front, and both [uː] and [ʊ] vowels are classed as back. The latter point of view does not seem to be consistent enough. The point is that the vowels in these two pairs differ in quality which is partially due to the raised part of the tongue. So in this case a more detailed classification seems to be a more precise one since it adequately reflects the articulatory distinction actually present in the language.

The other articulatory characteristic of vowels as to the tongue position is its vertical movement. The way British and Soviet phoneticians approach this aspect is also slightly different. British scholars distinguish three classes of vowels: high (or close), mid (or half-open), and low (or open) vowels. Soviet phoneticians made the classification more detailed distinguishing two subclasses in each class, i.e. broad and narrow variations of the three vertical positions of the tongue. Thus the following six groups of vowels are distinguished:

1) close	a) narrow: [iː] [uː]; b) broad: [ɪ], [ʊ], [ɪ(ə)], [ʊ(ə)];
2) mid	a) narrow: [e], [ɜː], [ə], [e(ɪ)], [ɜ(ʊ)]; b) broad: [ə], [ʌ];
3) open	a) narrow: [ɛ(ə)], [ɔː], [ɔ(ɪ)]; b) broad: [æ], [a(ɪ, ʊ)], [ɒ], [ɑː]

The phonological relevance of the criterion under discussion can be easily discovered in the following oppositions:

[pen — pæn]	pen — pan	[kæp — kɑ:p]	cap — carp
[pen — pɪn]	pen — pin	[kæp — kʌp]	cap — cup
[bɪn — bi:n]	bin — been	[bʌn — bɑ:n]	bun — barn

Another feature of English vowels which is sometimes included into the principles of classification is **lip rounding**. Traditionally three lip positions are distinguished, that is spread, neutral and rounded. For the purpose of classification it is sufficient to distinguish between two lip positions: rounded and unrounded, or neutral. In English lip rounding is not relevant phonologically since no two words can be differentiated on its basis. Lip rounding takes place rather due to physiological reasons than to any other. The fact is that any back vowel in English is produced with rounded lips, the degree of rounding is different and depends on the height of the raised part of the tongue; the higher it is raised the more rounded the lips are. So lip rounding is a phoneme constitutive indispensable feature, because no back vowel can exist without it.

Our next point should be made about another property of English vowel sounds that is traditionally termed **checkness**. This quality depends on the character of the articulatory transition from a vowel to a consonant. This kind of transition (VC) is very close in English unlike Russian. As a result all English short vowels are checked when stressed. The degree of checkness may vary and depends on the following consonant. Before fortis voiceless consonant it is more perceptible than before a lenis voiced consonant or sonorant. All long vowels are free.

It may be well to mention that though this characteristic has no phonological value it is of primary importance for Russian learners of English. It should be remembered that since all Russian vowels are free special attention should be drawn to making English short vowels checked. It is not the length of vowels that should be the point of attention but the character of the transition of a vowel into a consonant. Such words as *body, seven, better, matter* should be divided into syllables in such a way that the vowels should remain checked unlike Russian *Боря, Сева, бита, мята.*

At this point we are ready to consider another articulatory characteristic of English vowels, that is their length or quantity.

The Enplish monophthongs are traditionally divided into two varieties according to their length:

a) short vowels: [ɪ], [e], [æ], [ɒ], [ʊ], [ʌ], [ə];
b) long vowels: [iː], [ɑː], [ɔː], [ɜː], [uː].

We should point out that **vowel length** or **quantity** has for a long time been the point of disagreement among phoneticians.

It is common knowledge that a vowel like any sound has physical duration — time which is required for its production (articulation). When sounds are used in connected speech they cannot help being influenced by one another. Duration is one of the characteristics of a vowel which is modified by and depends on the following factors:

1) its own length,
2) the accent of the syllable in which it occurs,
3) phonetic context,
4) the position of the sound in a syllable,
5) the position in a rhythmic structure,
6) the position in a tone group,
7) the position in a phrase,
8) the position in an utterance,
9) the tempo of the whole utterance,
10) the type of pronunciation,
11) the style of pronunciation.

The problem the analysts are concerned with is whether variations in quantity or length are meaningful (relevant), that is whether vowel length can be treated as a relevant feature of English vowel system.

Different scholars attach varying significance to vowel quantity.

The approach of D.Jones, an outstanding British phonetician, extends the principle, underlying phonological relevance of vowel quantity (64). That means that words in such pairs as [bɪd] — [biːd], [sɪt] — [siːt], [fʊl] — [fuːl], ['fɔːwɜːd] (*foreword*) — ['fɔːwəd] (*forward*) are distinguished from one another by the oppositon of different length, which D.Jones calls chronemes. The difference in quantity is considered to be decisive and the difference in quality (the position of the active organ of speech) is considered to be subordinate to the difference in quantity. According to the point of view of the outstanding Soviet phonetician V.A.Vassilyev, English is not a language in which chronemes as separate prosodic phonological units can exist (79, p. 204).

If a phonetician wants to approach this aspect from phonological point of view he should base his theoretical conclusion on the two laws characterizing any system:

1. A relevant feature must characterize a number of units. Let us take a sample of palatalization in Russian. Compare: *ел — ель, ряд — ряд/нов — новь* and so on. These oppositions form a correlation system. Any correlation should have a number of oppositions. A sign of correlation (palatalization in the above-mentioned example) is a distinctive feature of a number of phonemes. The analysis of English vowels shows that they can hardly form quantitative correlation. For the sake of economy the following correlation is often brought about.

Let us analyze each of these pairs.

In actual speech the sounds [i:] and [u:] are normally realized in RP as diphthongized vowels. So [ɪ] and [ʊ] are opposed to diphthongoids but not to long monophthongs. .

The opposition [ɜ:] — [ə] is a fairly specific one because the [ə] phoneme never occurs in a stressed syllable and forms the core of unstressed vocalism in English. The phoneme [ɜ:] seldom occurs in an unstressed syllable.

The opposition [ɑ:] — [ʌ] is arbitrary. As a result there is only one pair of opposed phonemes remaining, e.g. [ɔ:] — [ɒ]. That means that quantitative correlation exists only in one opposition, so on this ground it cannot be treated as a phonologically relevant feature.

2. A feature can be systemic if it does not depend on the context. As to the absolute length of English historically long and historically short vowels it varies and depends on a lot of factors, the first being phonetic context. A.C.Gimson, for example, points out that [i:] in *beat* is only half about as long as the [i:] of *bee* and may approximately have the same duration as the [ɪ] vowel of *bid* because it is generally known that a voiced consonant following a vowel increases its length (57). But still the words *bid* and *bead* are perceived as different words because the vowels are different in quality, [ɪ] being front retracted, a pure monophthong, and [i:] being front close (narrow) and a diphthongized vowel. The conclusion that follows is that vowel quantity cannot be considered a minimal distinctive feature since it varies under the influence of different phonetic context. So it is an incidental feature that characterizes sounds of a certain quality. It is worth noting here that an element accompanying another element cannot be a sign itself and therefore cannot be classed as part of a system. This is one of the basic laws of any system. Summarizing we may say that this is the approach to quantity

of English vowels from phonological point of view. It is shared by all Soviet specialists in English phonetics as well as by most modern British phoneticians.

It may be well to mention that the [æ] vowel being classed as historically short tends to be lengthened in Modern English, especially before lenis consonants [b], [d], [g], [ʤ], [m], [n], [z]. In this position [æ] has the same quantity as long vowels [i:], [ɑ:], [ɔ:], [u:], [ɜ:]. This extra length, as A.C.Gimson points out, serves an additional distinctive feature and the qualitative — quantitative relation of [æ] — [e] tends to become of the same type as [i:] — [ɪ] (57). From this point of view [æ] can possibly belong to the subclass of long vowels, and consequently the twelve English long vowel phonemes may be divided into six phonemic pairs which members differ both in quality and in quantity, and of the two factors it is likely that the quality carries the greater contrastive weight.

There is one more articulatory characteristic that needs our attention. That is **tenseness**. It characterizes the state of the organs of speech at the moment of production of a vowel. Special instrumental analysis shows that historically long vowels are tense while historically short vowels are lax. This characteristic is of extraphonological type so tenseness may be considered as indispensable concomitant feature of English long vowels. On this ground it may be included into classificatory description of vowels because it might be helpful in teaching the students of English since there are no tense vowels in Russian.

Summarizing we could say that phonological analysis of articulatory features of English vowels allows to consider functionally relevant the following two characteristics:

a) stability of articulation,

b) tongue position.

The rest of the features mentioned above, that is lip position, character of vowel end, length, and tenseness are indispensable constituents of vowel quality. Though they have no phonological value they are considerably important in teaching English phonetics.

So far we have given a lot of attention to the problems of classifying English vowels. Vowels as items of vocalic system were analyzed as if pronounced in a stressed position in a word. At this point we should discuss various properties displayed by **vowels in unstressed positions** and **consider** them from articula-

tory and phonological point of view. It is well-known that a vowel in an unstressed syllable is perceived as very short, weak and indistinct. The unstressed syllables are usually associated with vowels of central or centralized quality [ə], [ɪ], sometimes [ʊ] and the diphthongs [ɜʊ], [aɪ] (or a syllabic consonant), e.g. *among* [ə'mʌŋ], *before* [bɪ'fɔ:], *useful* ['ju:sfʊl], *tomato* [tə'mɑ:tɜʊ], *exercise* ['eksəsaɪz], *sudden* ['sʌdn].

Also vowels of full quality sometimes occur in unstressed positions, often in borrowed words of Latin and Greek origin, e.g. *architect* ['ɑ:kɪtekt], *paragraph* ['pærəgrɑ:f], *canteen* [kæn'ti:n].

These nonreduced vowels in unstressed syllables are typical of all styles of pronunciation.

It is important to mention here that in the Russian language a vowel never preserves its full quality in unstressed position, it is usually reduced. So the English vowels of full quality in unstressed syllables require the teachers' special attention. Cf.: *transport* ['trænspɔ:t] — *транспорт* ['транспърт].

Then again partially reduced sounds are found in unstressed positions. They appear in more formal and careful style of pronunciation instead of the neutral sound used in informal casual speech. Cf.: *phonetics* [fɜʊ'netɪks — fɜ'netɪks — fə'netɪks].

Our next point should be made in connection with the **phonemic status of the neutral sound** [ə]. The phonological analysis marks the opposition of the neutral sound to other unstressed vowels, the most common among them being [ɪ]. In the minimal pairs: *officers* ['ɒfɪsəz] — *offices* ['ɒfɪsɪz]; *accept* [ək'sept] — *except* [ɪk'sept], *armour* ['ɑ:mə] — *army* ['ɑ:mɪ] the neutral sound is phonologically opposed to the phoneme [ɪ] with its own distinctive features capable of differentiating the meaning of lexical units. So the neutral sound [ə] in *officers, accept, armour* is an independent phoneme opposed to the [ɪ] phoneme of the minimal pairs given above.

On the other hand, the problem of the phonemic status of the neutral sound has a morphological aspect. In English as well as in Russian there are numerous alternations of vowels in stressed and unstressed syllables between the derivatives of the same root or different grammatical forms of the same word. Cf.:

[æ] — [ə] man — sportsman
[ʌ] — [ə] some — wholesome
[ɪ] — [ə] combine *n* — combine *v*
[eɪ] — [ə] operation — operative
[əʊ] — [ə] post — postpone

The alternated sounds are allophones of one and the same phoneme as they are derivatives of the same lexical units, the same morphemes. Thus the neutral sounds in the examples above are the neutralized allophones of the nonreduced vowels of full formation; so [ə] in *sportsman* is an allophone of the [æ] phoneme as in *man*; [ə] in *photography* is an allophone of the [ɜʊ] phoneme as in *photograph*.

We might conclude by saying that we have tried to look at the consonantal and vocalic systems of the English language from phonological point of view. Applying this sort of analysis enables us to define what properties displayed by English sounds are significant in making them items of a system. It is worth saying that phonologically relevant articulatory features should attract direct attention of a would-be teacher of English because they form the basis of the pronunciation system of the language. Non-relevant but indispensable features should also be acquired being both phonetically correct and necessary for teaching purposes. If we want to speak a foreign language in an objectively correct way it is natural we should pay attention to the quality of our sounds which is constituted by articulatory features of both kinds.

4. Modifications of Vowels in Connected Speech

In discussing vowels we should now turn to vowel reduction as it is one of the factors that condition the defining of the phonemic status of vowel sounds in a stretch of speech. The modifications of vowels in a speech chain are traced in the following directions: they are either quantitative or qualitative or both. These changes of vowels in a speech continuum are determined by a number of factors such as the position of the vowel in the word, accentual structure, tempo of speech, rhythm, etc.

The decrease of the vowel quantity or in other words the shortening of the vowel length is known as a quantitative modification of vowels, which may be illustrated as follows:

1. The shortening of the vowel length occurs in unstressed positions, e.g *blackboard* [ɔ:], *sorrow* [ɜʊ] (reduction). In these cases reduction affects both the length of the unstressed vowels and their quality.

Form words often demonstrate quantitative reduction in unstressed positions, e.g.

Is →he or ˌshe to blame? — [hiː]

But:

At last he has ˌcome. — [hi]

2. The length of a vowel depends on its position in a word. It varies in different phonetic environments. English vowels are said to have positional length, as you probably remember from your practical course of phonetics, e.g. *knee — need — neat* (accommodation). The vowel [iː] is the longest in the final position, it is obviously shorter before the lenis voiced consonant [d], and it is the shortest before the fortis voiceless consonant [t].

Qualitative modification of most vowels occurs in unstressed positions. Unstressed vowels lose their "colour", their quality, which is illustrated by the examples below:

1. In unstressed syllables vowels of full value are usually subjected to qualitative changes, e.g. *man* [mæn] — *sportsman* ['spɔːtsmən], *conduct* ['kɒndəkt] — *conduct* [kən'dʌkt]. In such cases the quality of the vowel is reduced to the neutral sound [ə].

These examples illustrate the neutralized (reduced) allophones of the same phonemes as the same morphemes are opposed.

The neutral sound [ə] is the most frcquent sound of English. In continuous text it represents about eleven per cent of all sounds. And if we add the occurrence of [ɪ] which is closely related to [ə] in unstressed positions we get a figure close to twenty per cent — nearly one sound in five is either [ə] or the unstressed [ɪ]. This high frequency of [ə] is the result of the rhythmic pattern: if unstressed syllables are given only a short duration, the vowel in them which might be otherwise full is reduced. It is common knowledge that English rhythm prefers a pattern in which stressed syllables alternate with unstressed ones. The effect of this can be seen even in single words, where a shift of stress is often accompanied hy a change of vowel quality; a full vowel becomes [ə], and [ə] becomes a full vowel. Compare: *analyse* ['ænəlaɪz] — *analysis* [ə'nælɪsɪs]; in both words full vowels appear in the stressed positions, alternating with [ə] in unstressed position. It would be impossible to have [ə] in a stressed syllable, and almost as impossible to have a full vowel in every unstressed syllable.

We should point out that in Russian there is a well-developed system of unstressed vowels. All the Russian vowels are regularly subjected to reduction, the vowels [о] and [и] more

often than others. The degree of sound weakening depends on the place of the unstressed vowel in relation to the stressed one. The farther the unstressed syllable is from the stressed one the weaker the vowel in the unstressed syllable is, e.g. *молоко* [мълакó].

2. Slight degree of nasalization marks vowels preceded or followed by the nasal consonants [n], [m], e.g. "*n*ever", "*no*", "the*n*", "*m*en" (accommodation).

The realization of reduction as well as assimilation and accommodation is connected with the style of speech. In rapid colloquial speech reduction may result in vowel elision, the complete omission of the unstressed vowel, which is also known as zero reduction. Zero reduction is likely to occur in a sequence of unstressed syllables, e.g. *history, factory, literature, territory.* It often occurs in initial unstressed syllables preceding the stressed one, e,g. *correct, believe, suppose, perhaps.*

The example below illustrates a stage-by-stage reduction (including zero reduction) of a phrase.

Has he done it? [hæz hi· ˌdʌn ɪt]
[həz hɪ ˌdʌn ɪt]
[əz ɪ ˌdʌn ɪt]
[z ɪ ˌdʌn ɪt]

We would like to conclude that certain interrelation which we observe between the full form of a word and its reduced forms is conditioned by the tempo, rhythm and style of speech.

SOUND ALTERNATIONS

In the previous section we saw how the pronunciation of speech sounds can vary according to their position in the word, and that the variation is usually quite regular and can be stated in the form of "rules" which predict the variants or allophones, that will occur in each position. In this section we shall look at variation of a different kind, involving not only interchange between sounds, but also between related phonemes. We shall now touch upon the sound variations in words, their derivatives and grammatical forms of words. These variations are known as **sound alternations**. It is perfectly obvious that sound alternations are caused by assimilation, accommodation and reduction in speech. Alternations of consonants are mainly due to contextual assimilations: the dark [ɫ] in *spell* alternates with the clear [l] in *spelling*. Vowel alternations are the result of the reduction in unstressed

positions: *combine* ['kɒmbaɪn] (n) — *combine* [kəm'baɪn] (v) where [ɒ] in the stressed syllable of the noun alternates with the neutral sound in the unstressed syllable of the verb. In Russian alternation may be illustrated by the following pair of words: *роса* [рʌса] — *росы* [росы]. The [ʌ] sound in the unstressed syllable of the word *роса* alternates wilh the [о] sound in the stressed syllable of the plural form *росы*. To approach the matter from the phonological viewpoint it is important to differentiate phonemic and allophonic alternations. Some sound alternations are traced to the phonetic changes in earlier periods of the language development and are known as **historical.**

In this section we are concerned with typical, well-documented sound changes. A thousand years ago, the English spoke a language which was the direct ancestor of the English we speak today. Yet this language which we call Old English, or Anglo-Saxon, is not intelligible to present-day speakers in the written forms in which it has been handed down to us, nor would it be intelligible, if it were spoken: it has to be learned as if it were a foreign language. There are many reasons for this: there have been changes in the vocabulary, and changes in the grammar, but the primary reason for the differences between Old and Modern English is the sound changes which have taken place over the intervening period. Sound changes occur gradually; the time scale for significant changes is usually measured in hundreds of years, rather than decades. The English spoken in the 1930s sounds old-fashioned, but the changes are in details only. For two stages of "the same" language to resemble different languages require a much longer period. English speakers need assistance in reading Chaucer (fourteenth century), just as Greeks today study the Classical Greek of the fifth century BC as if it were a foreign language. Historical alternations distinguish grammatical forms of words and lexical units in the process of word-building, e.g. *provide — provision* (provide was at one time pronounced with [i:]). The [i:] was converted to [aɪ] by complex rules of diphthongization and vowel shift. These changes, it should he noted, reflect actual changes in the history of English. Here is another example: the OE [k] phoneme split into two separate phonemes, modern [k] and [ʧ]. Thus alongside *cat, cool*, from the OE *catt, cōl*, we have *choose, chin* from OE *cēosan, cinn*. Minirnal pairs such as *kin — chin; care — chair* establish that Modern English has the two sounds as separate phonemes.

The alternations exemplified above are quite regular. Historical alternations mark both vowels and consonants, though the alternating sounds are not affected by the phonetic position or context, neither are they subjected to stylistic modifications. To sum up, the sound changes which occurred in the process of historical development of the English language are reflected in present-day English as alternations of phonemes differentiating words, their derivatives and grammatical forms. We are going to introduce here phonetic realizations of the most common historical alternations and their functions in word building and word formation. The alternations are often supported by suffixation. The following list of examples presents the most common types of alternations.

1. Vowel Alternations

1. Distinction of irregular verbal forms:

[iː — e — e]:	mean — meant — meant
[ɪ — ʌ — ʌ]:	dig — dug — dug
[aɪ — ɜʊ — ɪ]:	write — wrote — written
[ɪ — æ — ʌ]:	sing — sang — sung
[ɛə — ɔː — ɔː]:	wear — wore — worn
[aɪ — ɪ — ɪ]:	hide — hid — hidden
[iː — ɜʊ — ɜʊ]:	speak — spoke — spoken
[ɜʊ — uː — ɜʊ]:	know — knew — known
[ɪ — eɪ — ɪ]:	give — gave — given
[e — ɒ — ɒ]:	get — got — got
[iː — ɔː — ɔː]:	teach — taught — taught
[æ — ʊ — ʊ]:	understand — understood — understood
[eɪ — ʊ — eɪ]:	take — took — taken
[eɪ — ɜʊ — ɜʊ];	wake — woke — woken
[uː — ɒ — ɒ]:	shoot — shot — shot
[e — ɜʊ — ɜʊ]:	tell — told — told
[ɪ — æ — æ]:	sit — sat — sat
[ɪ — ɔː — ɔː]:	think — thought — thought
[ʌ — eɪ — ʌ]:	become — became — become
[aɪ — ɜʊ — ɪ]:	rise — rose — risen
[ɜʊ — uː — ɜʊ]:	grow — grew — grown
[uː — ɜʊ — ɜʊ]:	choose — chose — chosen
[aɪ — uː — ɜʊ]:	fly — flew — flown
[aɪ — ɔː — ɔː]:	fight — fought — fought

[aɪ — aʊ — aʊ]: find — found — found
[iː — ɔː — iː]: see — saw — seen
[ɪə — ɜː — ɜː]: hear — heard — heard
and some other less common verbal alternations of this type.

2. Distinction of causal verbal forms:

[ɪ — e]: sit — set
[aɪ — eɪ]: rise — raise
[ɔː — e]: fall — fell

3. Distinction of singular and plural forms of nouns:

[æ — e]: man — men
[ʊ — iː]: foot — feet
[uː — iː]: tooth — teeth
[aʊ — aɪ]: mouse — mice
[ʊ — ɪ]: woman — women
[aɪ — ɪ]: child — children

4. Distinction of parts of speech in etymologically correlated words:

[iː — e]: feast — festive
[ɑː — æ]: class — classify
[ɒ — e]: long — length
[ɔː — e]: broad — breadth
[eɪ — æ]: nation — national
[aɪ — ɪ]: wise — wisdom
[ɒ — iː]: hot — heat

This type of alternation is often strengthened not only by suffixation but also by the shifting of stress like in: *part — par'ticular, 'climate — cli'matic.*

2. Consonant Alternations

1. Distinction of irregular verbal forms:

[d — t]: send — sent, lend — lent

2. Distinction of parts of speech in etymologically correlated words:

[s — z]: advice — advise, house — house, use — use
[s — d]: defence — defend
[t — d]: intent — intend
[k — tʃ]: speak — speech
[t — s]: important — importance

3. Vowel + Consonant Alternations (often supported by suffixation and the shifting of stress)

[ɪ — aɪ] + [v — f): live — life
[ɑ: — eɪ] + [θ — ð]: bath — bathe
[e — i:] + [θ — ð]: breath — breathe
[ʊ — u:] + [s — z]: loss — lose

In the Russian language there are numerous types of vowel and consonant alternations illustrated by the examples below:

сидеть — сядь резать — режу
плыть — сплав лететь — лечу
судить — сужу плакать — плачу

Sound alternations are also widely spread on the synchronical level in the present-day English and are known as **contextual**. In connection with contextual sound alternations there arises a **problem of phonemic identification of alternated sounds**. The functioning of sounds in different grammatical forms and derivatives of words seems very complicated and flexible. The study of the relationship between phonemes and morphemes is called **morphophonemics**. The interrelation of phonology and morphology in linguistics' investigations is also known as **morphophonology** or **morphonology** which is actually the phonology of morphemes. Morphonology studies the way in which sounds can alternate as different realisations of one and the same morpheme. A morpheme is a minimal unit of meaning. We would all agree that such words as *windy, dusty, sunny* consist of two morphemes. Similarly, *demonstration, alternation* have two component morphemes. The meanings of *wind, dust, sun* as well as of *demonstrate, situate* are obvious. But what function do the morphemes *-y* and *-ion* perform? On the basis of the examples, it appears that the function of *-y* is to convert a noun into an adjective. Similarly *-ion* converts a verb into a noun. These morphemes have a grammatical meaning, their main purpose is to convert one part of speech into another. Now then what is meant by the identification of alternated sounds? Each set of data below exemplifies a sound alternation in one and the same morpheme of two different parts of speech.

malice ['mælɪs] — malicious [mə'lɪʃəs]
active ['æktɪv] — activity [ək'tɪvɪtɪ]
abstract ['æbstrækt] — abstract [æb'strækt]
conduct ['kɒndəkt] — conduct [kən'dʌkt]
contrast ['kɒntræst] — contrast [kən'træst]

We are interested now in the sound in its weak position. Vowels are said to be in their strong position when they are in stressed syllables and in the weak position when they are in the unstressed ones. Consonants may well be said to be in their strong position before vowels and in the intervocalic position; they are in weak positions when they are word final or precede other consonants.

There may be different solutions to the problem of phoneme identification in weak positions of alternated words. The question arises whether the sound [ə] in the words *activity* and *con'trast* is a neutral phoneme or it is an allophone of the [æ] or [ɒ] phonemes (as in *active*, *'contrast*) which loses some of its distinctive features in the unstressed position. The difference is quite essential as in the first case the neutral sound is identified as an independent neutral phoneme, in the second — it is a neutralized allophone of the [æ] or [ɒ] phonemes of the corresponding alternated words.

It is fair to mention here that the problem is by far more significant for the Russian language because of the widely spread voiced/voiceless assimilation and vowel reduction in the language, e.g.

a)	мороз	[мʌрóс]	— морозы	[мʌрóзы]
	город	[гóрът]	— города	[гърʌдá]
	зуб	[зуп]	— зубы	[зýбы]
b)	коса	[кʌсá]	— косы	[кóсы]
	слон	[слóн]	— слоны	[слʌны́]
	сторона	[стърʌнá]	— стороны	[стóръны]

Scholars of different trends are not unanimous in solving the problem. Though the discussions of the problem are dying down at present the conceptions remain determining for this or that linguistic point of view. The so-called morphological school represented by Soviet philologists R.I.Avanesov, V.P.Sidorov, P.S.Kuznetsov, A.A.Reformatsky supported the theory of neutralization of phonemes.

The concept of neutralization, and the theory related to it derives originally from the Prague School of phonology which flourished in the thirties; it is particularly associated with N.S.Trubetskoy (34) and R.Jakobson (62). A neutralization is said to occur when two or more closely related sounds, which are in contrast with each other in most positions like *дом — том*, are

found to be non-contrastive in certain other positions, e.g. *суд* [сут] — *судить* [суд'ит']. That means that there are environments where the two sounds do not contrast with each other, even though they normally do. When this happens, the opposition between the two sounds is said to be neutralized. The loss of one or more distinctive features of a phoneme in the weak position is called **phonemic neutralization**. In English, the voicing opposition is neutralized after the initial [s]. We are well aware of the fact that the phonemes [t] and [d], for example, contrast in most environments: initially (*tick — Dick*), finally (*bid — bit*); after nasals (*bend — bent*), after [l] (*cold — colt*). But after [s], no contrast between [t], [d] is possible, nor, similarly, is there a contrast between [p], [b] and [k], [g] in this environment. The voicing contrast is neutralized after initial [s].

The sound which actually occurs in this environment does not correspond exactly to either the voiced or voiceless sounds, but shares the features of both of them: *speak, story, sky*. If we represent the [p] of *peak*, as [p^h], the sound [p] of *speak* as [p$^=$][1], and the [b] of *beak* as [b], the distribution of features is as follows:

[p^h] — *peak*	[p$^=$] — *speak*	[b] — *beak*
bilabial	bilabial	bilabial
plosive	plosive	plosive
voiceless fortis	voiceless fortis	voiced lenis
aspirated	unaspirated	unaspirated

This distribution of features shows that [p$^=$] is truly intermediate between [p^h] and [b]; it shares their common properties, bilabial and plosive, but then it shares one feature (voiceless), with [p^h] and the other (unaspirated) with [b]. Does it belong, then, with the phoneme [p] or with [b]? Usually phonologists have assigned it to [p] on the grounds that voicing is more important in English than aspiration, or for other similar reasons. There is a good case, however, for arguing that [p$^=$] belongs equally with [p] or [b], as shown by the distribution of features, and therefore that *speak* could be transcribed equally as [spi:k] or as [sbi:k]. The choice of [p] is usually preferred, because of the spelling, as English has a long-established tradition of spelling these words with *sp, st, sk*.

The Moscow philologists claim that interchange of sounds

[1] [x̄] — loss of aspiration.

manifests close connection between phonetics as the science of the sound system and morphology of the language which studies grammatical meanings. Alternations are observed in one and the same morphological unit, in a morpheme, and actualize the phonemic structure of the morpheme. Thus **the phonemic content of the morpheme is constant**. It should be noted here that alternations of morphemes cannot be mistaken for the oppositions of minimal pairs in different stems of words. For instance, [ш] — [ж] in *нож* [ш] — *ножик* [ж] is an alternation of sounds within the same phoneme in the same morpheme, where [ш] is an allophonic realization of the [ж] phoneme, while [ш] — [ж] in *шар — жар* is the opposition of two different phonemes which differentiates the actual meaning of the words. Let us compare the sentences: *У него плохой грипп. — У него плохой гриб.* The distinction of the sentences is lost as soon as they are pronounced. In the word *гриб* [п] the final consonant loses one of its distinctive features (voiced/voiceless) but it is associated with the word *грибы*, it is morphologically bound with them and manifests an allophone of the [б] phoneme. Thus the sound [п] may be an allophone of different phonemes: it is the principal allophone of the phoneme [п] in the word *грипп* [п] and the subsidiary allophone in the weak position of the phoneme [б] in the word *гриб* [п].

In the alternation *вода — воды* the sounds [ʌ] — [о] are allophones of one and the same phoneme [о]. So [ʌ] is the allophone of the phoneme [о] in the weak position of the word *вода*. It might be an allophone of some other phoneme, [а] for instance, in the word *трава*. In other words one and the same sound may belong to different phonemes.

In the English word *activity* the neutral sound [ə] is the allophonic realization of the phoneme [æ] in its weak unstressed position. It alternates with the principal allophone of the phoneme [æ] in the words of the same root-morpheme: *act, active*. And [p$^{=}$] in speak is actually an allophone of the [p] phoneme.

The supporters of the morphological trend define the phoneme as follows: «Это функциональная фонетическая единица, представленная рядом позиционно чередующихся звуков» (25, p. 107).

The notion of «фонетический ряд», suggested by R.I.Avanesov (1), demonstrates positionally determined realizations of the phoneme. Positionally alternating sounds are grouped into

one phoneme whether they are similar or have common features (that is common allophones) with other phonemes.

The Russian preposition *с* + noun may have the following realizations:

с Колей	— [с]	с Шурой	— [ш]
с Тимошей	— [с']	с Женей	— [ж]
с Галей	— [з]	с Чуком	— [ш']
с Димой	— [з']		

In the morphological conception the alternations of the phonemes are not analysed apart from the morpheme, as form and content make dialectical unity. The phonetic system is not isolated from the grammatical and lexical structure of the language, and the unity between the form and content cannot be destroyed. Yet as an answer to the problem it is not entirely satisfactory since ordinary speakers are in no doubt that the sound which occurs in a word like *гриб* is [б] not [п], and in the English word speak [p$^{=}$], mentioned above, is nothing but [p]. The perception of the listener makes us find the morphological conception too discrepant and conflicting.

The so-called Leningrad phonological school (L.V.Shcherba and his followers L.R.Zinder, M.I.Matusevitch) assert that the phoneme is independent of the morpheme. So [ʌ] in *вода* belongs to the [а] phoneme while [о] in *воды* to the [о] phoneme; [с] in the word *мороз* belongs to the [с] phoneme and [з] in *морозы* — to the [з] phoneme respectively. The supporters of this conception claim that the phoneme cannot lose any of its distinctive features.

In the line of words of the same root-morpheme *гриб — грибы — грибов* the sound [п] in *гриб* is an allophone of the [п] phoneme and the sound [б] in the derivatives manifests the phoneme [б].

Consequently, the consonants [б] and [п] do not lose any of their distinctive features and represent different phonemes: [п] in *гриб* and [б] in *грибы*. They are: a plosive bilabial voiceless fortis stop/a plosive bilabial voiced lenis stop. They are capable of creating phonological oppositions like *пыл — был*, *столб — столп*.

As far as the English language is concerned, the neutral sound [ə] in the word *activity* and the sound [æ] in the words *act*, *active* of the same morpheme belong to different phonemes. As a phoneme does not lose any of its distinctive features the sound [ə] in the

word *activity* is an allophone of the [ə] phoneme and the sound [æ] in the words *act, active* is the [æ] phoneme. It seems that according to this point of view the unity between the form and content is destroyed, thus phonology is isolated from morphology.

N.S.Trubetskoy (the Prague phonological school) (34) arrived at an original solution of the phonemic status of a sound in alternations. To overcome the difficulty he introduced a broader phonological unit than a phoneme and named it an **archiphoneme**. An archiphoneme combines the distinctive features of two different phonemes into one in variations where one of the phonemes is neutralized in the weak position. An archiphoneme is defined as a combination of distinctive features common to two phonemes. According to Trubetskoy it consists of the shared features of two or more closely related phonemes but excludes the feature which distinguishes them. The archiphoneme of [p], [b] consists of the features: bilabial, plosive, but excludes voicing which separates them. In our examples *вода — воды* [ʌ] and [o] manifest one archiphoneme as well as [п] and [б] in *гриб — грибы* — another archiphoneme. For transcription purposes the symbols of capital [O] is used to represent the archiphoneme [а — о] and capital [П] — of [п — б] respectively. One of the disadvantages in extending the notion of an archiphoneme is that the Prague school phonologists limited neutralization to closely related phonemes. A neutralization can be said to occur only if there is uncertainty about the identity of the sound in the position of neutralization. Before two phonemes can be neutralized, they must have common qualities which do not occur in other phonemes. Thus [p], [b] can neutralize because they are the only labial plosives in the language, they share these two features, but no other sounds share them. However, [n], [ŋ] cannot neutralize because their common property (nasality) is also shared by [m], so any neutralization of nasals must involve all the three of them [n], [ŋ], [m], and there cannot be a neutralization of [f], [h] before [l] since the features common to these, voiceless, fricative, are also shared by other phonemes, namely [ʃ], [s], [θ].

In English initial [s] can precede a plosive, but initial [ʃ] cannot. Since [s], [ʃ] contrast in most other environments in English, they share the features voiceless, fortis, constrictive, fricative, and are the only sounds to have these features, it may seem somehow that the contrast is neutralized, though no one will doubt the sound that occurs in the word *speak* is [s] and not [ʃ].

In conclusion we have to admit that the described conceptions are arbitrary, none is ideal. The morphological conception as well as the theory of the archiphoneme seems complicated, though the former appears to be most optimum for theory and practice.

Stylistic Modifications of Sounds

So far we analysed sound modifications typical of connected speech mostly within the norm of the English sound system but without any reference and special attention to their stylistic distinctions. It is generally known that variability in the sound realizations is caused by the environment, distribution of sounds in a speech chain, the accentual and the rhythmical structures of the utterance and other linguistic factors and extralinguistic factors. Phonetic distinction marks different forms of communication: monologue, dialogue and polylogue; reading and spontaneous speaking and also forms of speech activity.

Stylistic oppositions have long been observed in linguistic literature in the two marginal types of pronunciation: formal and informal. **Formal speech** suggests dispassionate information on the part of the speaker. It is characterized by careful articulation and relatively slow speed. A.C.Gimson defines it as careful colloquial style (57), G.Brown describes it as formal slow colloquial style of speech (48). V.A.Vassilyev labels it normal-speed colloquial style of speech (79). Other Soviet field researchers call it full style (9). **Informal speech** implies everyday conversation. The following definitions are also used: rapid colloquial speech, conversational style.

As was mentioned earlier, stylistic modifications of intonation do not coincide with those of sounds.

It is not always easy to draw a borderline between different stylistic realizations as within each style speech may differ in accordance with extralinguistic factors. For instance, it is generally known that spontaneous form of speech differs greatly from reading on the phonetic level. The character of the outcome of speech in reading and speaking results in different phonation. The difference seems to be basically in the prosodic parameters. Spontaneous speech is usually characterized by the variations of pitch, tempo, loudness and delimitation of phrase, numerous

hesitation devices. Segmental modifications are less recognizable. The same sound modifications often mark both speech activities, reading and speaking, though the use of the simplified sound form is often more typical for speaking than for reading; that means that in speaking it is more frequently used than in reading.

Now let us turn to different forms of communication. As has already been mentioned, a monologue often presupposes public speaking with a considerable distance of the addresser (the speaker) from the addressee (the listener) or a piece of calm narrative. Dialogues are more often private, personal and intimate. Monologuing is characterized by more phonetic precision. On the other hand speech may vary in numerous ways. The interaction of the extralinguistic factors may arrange the opposite situation: the speaker's highly excited narration of some critical situation will become full of slurring while a dialogic discussion of problems between colleagues will be phonetically most precise.

Stylistic sound variations seem to have the tendency towards the increase of the sound modifications in speech with the quickening of its tempo and the weakening of the carefulness, e.g. *government* ['gʌvənmənt → 'gʌvəm nt → 'gʌvmnt → 'gʌbmnt].

Phonetic means which are stylistically relevant depend on the extralinguistic situation of the discourse.

The first thing that counts in the stylistic modifications of sounds is the character of relationship between the speaker and the listener and the degree of formality in their discourse. Speech continuum reflects the amount of attention that the speakers give to their speech. It is assumed that in formal situations the participants will monitor their linguistic behaviour. If the speaker wants to be clearly understood (like while producing a lecture with an educational aim), he should sound explicit and his pronunciation may be characterized as supercorrect. In informal situations, where speakers are more relaxed, less attention will be given to speech and more natural and simplified it will sound. Consequently, the degree of simplification of speech (assimilation, reduction, elision) may be looked upon as a style forming means.

We should admit that the character of sound modifications in relation to situational factors of speech communication is only beginninq to be the object of thorough instrumental analysis today. The investigations are usually based on the contrastive

principle, and we shall follow the same principle in our description of sound modifications. We would like to illustrate sound simplifications in informal conversational speech, which are not registered in the listener's mind but actually occur in the speaker's discourse. The listener is not usually aware of the changes since they do not affect the meaning. If you look at the transcribed variant of the text you will observe the actual phonation in informal speech. Mind not all the stages of assimilation, reduction and especially accommodation can be reflected in the symbols of the transcription. Here is an extract from a conversation of two friends in a restaurant:

Brenda: Ah, right, here we are!
[ˌɑ: | ˌraɪt ǂ →hɪ(ə) wi: ˌɑ:]

Bob: This is the place I was telling you about.
[→ðɪs iz ðə ˌpleɪs ə wz telɪŋ jə əba(ʊ)t]

Br.: Yeah, could you ask the waiter if we can sit near the window?
[ˌjɑ: | ˈkʊdʒʊ ɑ·sk ðə ˈweɪtə ɪf wi kn ˌsɪ(t) nɪ(ə) ðə ˌwɪndɜ·]

Waiter: Good evening, sir.
[gʊd ˌi:vnɪŋ sə]

B.: We'd like to sit near the window if that's possible.
[wid →laɪ(k) t(ə) sɪ(t) nɪ(ə) ðə ˌwindɜ(ʊ) ǂ ɪf →ðæts ˌpɒsɪbl]

W.: Er... Ah! ... er... I'm afraid all the tables there are taken. Would you mind sitting near ... nearer the bar?
[> ɜ: ǂ ˌɑ: ǂ > ɜ: m →fre(ɪ)d əl ðə ˌteɪblz ðɛ·ə ˌteɪkn ‖ ˈwʊdʒʊ → maɪn sɪtɪn > nɪ(ə) ǂ nɪərə ðə ˌbɑ:]

B.: Oh, yes, all right. That suit you?
[ˌɜʊ ǂ jes ɔ:ˌraɪt ‖ ðət 's(j)u:ʧʊ]

Br.: Mm, fine.
[> m: ˌfaɪn]

B.: Good.
[ˌgʊd]

Now let us pass over to a brief observation of the possible sound modifications which occur in oral speech.

We shall try to illustrate the existing marginal varieties of the sound modifications which appear regularly in informal speech, the slow formal English being taken as the starting point in the

comparison. We would like to start the description with **vowel sounds**.

Typical character of sound simplifications in relation to the degree of formality is the great qualitative stability of vowels in slow formal speech and more frequent sound variability in informal spoken English. Both front and back vowels in less explicit articulation tend to be changing towards neutralized sounds, especially in grammatical words.

Spelling	*Formal*	*Informal*
it's not	ɪts 'nɒt	əts 'not
because	bɪ'kɒz	bɪkəz
according to	ə'kɔ:dɪŋ tə	əkədɪŋ tə
I think he was	aɪ'θɪŋk hi· wəz	ʌ 'θɪŋk ɪ wz

The historically long vowel [i:] tends to lose its diphthongization; as the next stage it undergoes quantitative reduction and finally changes its quality as well.

Spelling	*Formal*	*Informal*
I don't believe it	aɪ 'dəʊnt bɪ'li:v ɪt	ʌ dəʊn(t) bə'lɪv ɪt
it seems to be	ɪt 'si:mz tə bi·	ɪt 'sɪmz tə bɪ

The similar process of reduction is likewise observed in [u:] simplified to [ʊ].

Spelling	*Formal*	*Informal*
a few more words	ə 'fju: 'mɔ: 'wɜ:dz	ə fjʊ mɔ· 'wɜ:dz
a new aspect	ə 'nju: 'æspekt	ə 'n(j)ʊ 'æspekt

As to labialization of vowels the amount of rounding varies greatly between the individual speakers. The vowel [ɔ:] seems to retain lip rounding as a rule. The vowels [ɒ] and [ɔɪ] have very little, if any, rounding at all in informal speaking. The vowels [u:], [ʊ] seem to lose the rounding altogether.

Diphthongs are very often monophthongized in informal speech.

The diphthong [ɛə] tends to be simplified to [ɛ(:)], e.g.

Spelling	*Formal*	*Informal*
where	wɛə	wɛ
here and there	'hɪər ənd 'ðɛə	'hɪ(ə)r ən 'ðɛ

In an unstressed position it is further modified to [e], e.g. *there is an opinion* [ðer ɪz ən ə'pɪnjən].

The diphthong [ɪə] often gets a sort of central vowel realization [ɜ].

Spelling	*Formal*	*Informal*
really strange	'riəlɪ 'streɪndʒ	'rɜlɪ 'streɪndʒ
serious action	'sɪərɪəs 'ækʃn	'sɜrɪ(ə)s 'ækʃn
experienced worker	ɪks'pɪərɪənst 'wɜ:kə	ɪks'pɜrənst 'wɜ:kə

The [ʊ] ending diphthongs [aʊ] and [ɜʊ] are simplified into [a] and [ɜ] accordingly. The various stages of their realizations are found both in stressed and unstressed positions. The quality of the initial element is retained and the second element, the glide, is obscured or lost.

Spelling	*Formal*	*Informal*
now they	'naʊ ðeɪ	'na ðe(ɪ)
South of Italy	'saʊθ əv 'ɪtəlɪ	'saθ əv 'ɪtəlɪ
going ahead	'gɜʊɪŋ ə'hed	'gɜŋ ə'hed
yes or no	'jes ɔ·'nɜʊ	'jes ə'nɜ

Unstressed positions are sometimes marked by the next stage of qualitative reduction. The diphthong [aʊ] is realized as some kind of [ʌ].

Spelling	*Formal*	*Informal*
and now we've come to	ənd 'naʊ wi·v 'kʌm tə	ən nʌ wi·v 'kʌm tə
mark how different it is	'mɑ:k haʊ 'dɪfərənt ɪt ɪz	'mɑ:k hʌ 'dɪfrənt ɪt ɪz

The diphthong [ɜʊ] is sometimes completely neutralized in the unstressed position.

Spelling	*Formal*	*Informal*
so we've discussed	sɜʊ wi·v dɪs'kʌst	sə wɪv dɪs'kʌst
hope to settle it	hɜʊp tə 'setl ɪt	hə tə 'setl ɪt

Vowel elision is very frequent in informal conversational style. It often goes with other processes involving assimilation and elision of consonants. Elided neutral sound [ə] is very common in the unstressed syllables of polysyllabic words, like:

Spelling	*Formal*	*Informal*
collective	kə'lektɪv	'klektɪv
different	'dɪfərənt	'dɪfrənt
prisoner	'prɪzənə	'prɪznə
political	pə'lɪtɪkl	'plɪtɪkl
phonetically	fə'netɪkəlɪ	'fnetɪkəlɪ

In the last three examples the loss of [ə] in the initial unstressed syllable of a word causes the initial consonant form a cluster with the consonant of the stressed syllable. Vowel reduction mostly occurs in extended utterances in sequences of words. The loss of the neutral sound [ə] in the preposition *to* or the particle *to* preceded by a consonant is a very common pattern.

Spelling	*Formal*	*Informal*
next to Liverpool	'nekst tə 'lɪvəpu:l	'nekst 'tlɪvəpu:l
back to London	'bæk tə 'lʌndən	'bæk 'tlʌnd(ə)n
to see them	tə 'si: ðəm	'tsi: ðəm
future situation	'fju:tʃə ˌsɪtjʊ'eɪʃn	'fju:tʃə 'sɪtjʊeɪʃn
this afternoon	ðɪs ˌɑ:ftə'nu:n	ðɪs 'ɑ:ftnu:n
after all	'ɑ:ftər 'ɔ:l	'ɑ:ft'rɔ:l

In the majority of spoken utterances beginning with *its* the initial [ɪ] is elided when the phrase runs on without a marked pause after the previous saying.

Spelling	*Formal*	*Informal*
it's paid well	ɪts 'peɪd wel	ts 'peɪd wel
it's necessary	ɪts 'nesəsərɪ	ts 'nesəsərɪ
it's counted as	ɪts 'kaʊntɪd əz	ts 'kauntɪd əz

Likewise in polysyllabic words beginning with the unstressed *ex-* it is often simplified to [ks].

Spelling	*Formal*	*Informal*
extremely	ɪks'trɪ:mlɪ	'kstrɪ:mlɪ
extraordinary	ɪks'trɔ:dnrɪ	'kstrɔ:dnrɪ
excluded	ɪks'klu:dɪd	'ksklu:dɪd

As we have already mentioned vowel reduction often results in regular consonant clusters like [tr], [fr], [pl], [kl] typical for the English sound system. Cf. *tram, try, tree* and *int(e)resting, aft(e)r all; please, play* and *p(o)litical; clay, cloud, circle* and *c(o)llective; friend, from* and *diff(e)rence.*

Alongside with regular clusters in informal careless speech we find phonetic facts which seem impossible for the English pronunciations namely consonant sequences [tsn], [tsk], [tsp] and others.

Spelling	*Formal*	*Informal*
it's not exact	ɪts 'nɒt ɪg'zækt	ts 'nɒt ɪg'zækt
it's close to	ɪts 'klǝʊs tə	ts 'klǝʊs tə
it's perhaps you	ɪts pəhæps 'ju:	ts pəhæps 'ju:

These sequences never occur in speech where the words are uttered clearly and explicitly but in the stream of informal speech in the least prominent parts of the utterance. These facts represent the natural process of compression, or simplification which are known in other languages. In the Russian language, for example, the number of consonant clusters as a result of vowel reduction increases in informal spontaneous speech.

Spelling	*Formal*	*Informal*
пожалуйста	плжа́лустъ	плжа́лстъ
сейчас	с'и^{э}ч'ас	ш'ас
хорошо	хърлшо́	хрлшо́

In the normal course of conversation the reductions themselves go quite unnoticed by the listener as the distinctive features of phonemes are not lost. The listener is mainly interested in the meanings the speaker aims to convey and not in the precise phonetic detail with which he conveys them. So long as the meaning is recoverable, the listener is satisfied. We have to regard the omissions and reductions then as a kind of economy on the part of the speaker who aims not to give more information than is necessary. The speaker assumes usually correctly that the listener will not notice the omissions. Paradoxically, this makes the omissions difficult to observe, being so used to ignoring it.

We shall now turn to the most common tendencies in **the stylistic modifications of consonants**. The process of different sorts of assimilations typical for the English language is usually not so simple as the replacement of one member of phoneme by another. The mechanism of assimilation is a complex of alternations of segmental realizations within the cluster, which is difficult to exemplify in the symbols of the accepted form of transcription, especially when the described sound is only partially "there".

The assimilations of consonants according to voiced (lenis) — voiceless (fortis) principle are not so common in English as they are in Russian. Still the degree of voicing or devoicing of consonants increases passing gradually through several stages from slow careful reading before a large audience to informal careless conversation and ends with the elision of the sound, e.g. *must be* [mʌst biː → mʌst bᵖiː → mʌst piː → mʌs piː]; *don't get* [dɜʊnt get → dɜʊnt ᵏget → dɜʊnt ket].

In the intermediate stages the cluster is represented by a series of sound alternations which reflect the adaptation to the neighbouring sound. The elision of "t" is often met in the position between two consonants.

The consonants are also markedly different in informal conversational style according to their place of articulation. Word final consonants [t], [d], [n], sometimes [m], [s], [z] immediately followed by a velar or labial consonant undergo a sort of adaptation.

Spelling	*Formal*	*Informal*
great burden	'greɪt 'bɜːdn	'greɪp 'bɜːdn
that man	'ðæt 'mæn	'ðæp 'mæn
American government	a'merɪkən 'gʌvnmənt	ə'merɪkəŋ 'gʌv(ə)mənt
hundred places	'hʌndrɪd 'pleɪsɪz	'hʌndrəb 'pleɪsɪz
taken gladly	'teɪkn 'glædlɪ	'teɪkŋ 'glædlɪ

Instead of the closure for the [t] a marked glottal stop [ʔ] is also observed before the modified plosive consonant.

Spelling	*Formal*	*Informal*
Great Britain	'greɪt 'brɪtn	'greɪʔ 'pᵇrɪbn
didn't go	'dɪdnt 'gɜʊ	'dɪdŋʔ 'kᵍɜʊ
couldn't come	'kʊdnt 'kʌm	'kʊdŋʔ 'kʌm

The illustrated modifications could be summarized in the following way.

[t]	[p] before [p], [m]	that place ['ðæp 'pleɪs]
		that might ['ðæp 'maɪt]
	[k] before [k]	don't question ['dɜʊŋk 'kwestʃ(ə)n]

[d]	[b] before [p], [b], [m]	good morning ['gʊb 'mɔ:nɪŋ] would be ['wʊb bi:]
	[g] before [k], [g]	Good God ['gʊg 'gɒd] good cook ['gʊg 'kʊk]
[n]	[m] before [p], [b], [m]	on me [ɒm 'mi:] in business [ɪm 'bɪznɪs]
	[k] before [k], [g]	in quite [ɪŋ 'kwaɪt] can get [kəŋ 'get]

We should strongly emphasize the idea that the students are not recommended to imitate these extreme forms of the existing ways of adaptation in very rapid careless speech.

A definite and very frequent process of assimilation is observed when [s], [z] sounds are followed by the palatal [j] in the unstressed part of the phrase. The alveolars tend to become palato-alveolar in informal conversational style.

Spelling	*Formal*	*Informal*
this year	'ðɪs 'jɪə	'ðɪʃ 'jɪə
as you	əz ju:	əʒ ju:
as yet	əz jet	əʒ jet

The palatal [j] is strong enough to affect the manner of articulation of the preceding [t], [d] sounds. In accordance with the tempo and style of speech, individual fluency, number of recipients and other situational factors the assimilated segment preceding [j] may consist of several sections with gradually changing features. The process most often leads to an affricate:

would you [wʊdju: → wʊdʲju → wʊʤʊ]
could you [kʊdju: → kʊdʲju < kʊʤʊ]
mind you [maɪndju: → maɪndʲju → maɪnʤʊ]
can't you [kɑ:ntju: → kɑ:ntʲju → kɑ:nʧʊ]
about you [əbaʊtju: → abaʊtʲju → əbaʊʧʊ]

The elision of consonants is no less frequent process in informal speech than a vowel elision. The most common consonants to find involved in elision are [t] and [d]. Elision usually occurs in a syllable final sequence when the sound stands between two consonants. It is said to be more common for [t] and [d] to be elided between the other two consonants than it is for them to be pronounced.

Spelling	*Formal*	*Informal*
second group	'sekənd 'gru:p	'sekəŋ 'gru:p
first five	'fɜ:st 'faɪv	'fɜ:s 'faɪv
next point	'nekst 'pɔɪnt	'neks 'pɔɪnt
best judge	'best 'dʒʌdʒ	'bes 'dʒʌdʒ
the fact that	ðə 'fækt ðət	ðə 'fæk ðət
second term	'sekənd 'tɜ:m	'sekən 'tɜ:m

[d] elides even more readily than [t]. We find the loss of [d] in a syllable final sequence preceding another consonant but immediately following a vowel.

Spelling	*Formal*	*Informal*
that it would be	ðət ɪt wʊd 'bi:	ðət ɪt wʊ 'bɪ
he said some words about	hi· 'sed sʌm 'wɜ:dz əbaʊt	(h)ɪ 'se səm 'wɜ:dz abaʊt

Other consonants tend to be elided in some definite environments. For instance, the consonant [v] is often elided when it is final in an unstressed form word *have* or *of* and immediately precedes another consonant.

Spelling	*Formal*	*Informal*
lists of the students	'lɪsts əv ðə 'stju:dənts	'lɪsts ə ðə 'st(j)u:d(ə)nts
we've been studying	wi·v bi·n 'stʌdɪɪŋ	wɪ bɪn 'stʌdɪɪŋ
of course	əv'kɔ:s, əf'kɔ:s	ə'kɒs

The definite article [ðə] is often realized as the neutral sound alone. It occurs in cases when the definiteness of the noun is clearly established and [ə] can only be interpreted as the realization of the definite article [ðə].

Spelling	*Formal*	*Informal*
and the way he did it	ənd ðə 'weɪ hi· 'dɪd ɪt	ən(d) ə 'weɪ (h)ɪ 'dɪd ɪt
and the reason for it	ənd ðə 'ri:zn fər ɪt	ən(d) ə 'ri:zn frt
and the Scotchman	ənd ðə 'skɒʧmən	ən(d) ə 'skɒʧmən

The elision of [l] is restricted to the position after the vowel [ɔ:]. This process was established in the earlier periods of the English language which is reflected in the pronunciation of the words *talk, walk*; sometimes in the word *certainly*.

Spelling	*Formal*	*Informal*
all right	ɔ:l 'raɪt	ɔ:'raɪt
already	ɔ:l'redɪ	ɔ:'redɪ
always	'ɔ:lwɪz	'ɔ:wɪz
also	'ɔ:lsəʊ	'ɔ:səʊ

The elision of [l] in words beginning with *all* is typical even for slow full speech style.

We have tried to exemplify the extreme variants of sound modifications in the informal conversational style to help Russian learners comprehend spoken English. It is hardly a teachable model. The junior trainees should not be required to produce the extreme forms given in this section but to recognize them and understand sequences of words in which they occur. Refinements of pronunciation of this kind should be left for advanced students to adopt by themselves. We should like to make it quite clear that the beginners are not supposed to be taught the extreme forms of careless speech like [mʌs pi·] for *must be* but that they should properly use the established forms of sound modifications (reductions, assimilations) of connected speech and articulate *must be* with the loss of plosion.

The described stylistic variability conditioned by the extralinguistic factors has a certain theoretical aspect. It concerns the problem of a subtle structural relationship of phonetic units: a phoneme, an allophone, a phone. The phoneme is viewed as the smallest indivisible phonetic unit, it is the smallest contrastive unit, a unity of co-existing distinctive features, e.g. [ted] — [ded]. As you know, an allophone preserves all the distinctive features of a phoneme but acquires additional non-distinctive contextual features, which are predictable as they are received in various positions of sounds in connected speech in different phonetic context, e.g [ded] — [dred], [ten] — ['i:tn], [keɪk] — [skeɪt]. They are universal since they are obligatory for all people of English-speaking community in any form of presentation and style. An allophone differs from a phoneme in the degree of abstraction.

Still allophonic variations do not cover all segmental modifications observed in a speech discourse. There exist sound modifications due to extralinguistic factors of communication. For instance, in spontaneous speech of relatives or intimate friends the meaning of the phrase "I think so" is absolutely clear to the listener. He perceives it as [aɪ 'θɪŋk səʊ] though the speaker actual-

ly pronounces [ʌ 'θɪŋk sɜ]. The [ʌ] realizition here is a stylistic variant of the phoneme [aɪ].

The analysis of stylistic modifications of sounds allows us to speak of an intermediate stage between an allophone and a phone (a sound realization) that is a variant which implies allophonic and stylistic variations of sounds. The term "variant" suggests the realization of stylistic features which are universal for every speaker in any type of discourse.

We cannot deny that every actual sound realization is a unique and individual ideophone. Apart from the distinctive, contextual and stylistic features it differs in the timbre and **personal voice qualities** of every speaker which make his speech recognizable though we may not see the speaker but only hear him over the radio or in a telephone talk. Thus the sound realizations of phonemes are marked by personal features in addition to distinctive, contextual and stylistic. In the most general way the relationship between these phonetic units may be illustrated in this scheme.

Phoneme →	Allophone →	Variant →	Phone
Distinctive features	Distinctive features	Distinctive features	Distinctive features
	Contextual features	Contextual features	Contextual features
		Stylistic features	Stylistic features
			Personal features

So, a phoneme, an allophone, a variant and a phone form a kind of hierarchy of phonetic units in discourse.

As was mentioned at the start of this section, the degree of formality or in other words the character of relationship between participants of the discourse proves to be most significant in the stylistic modifications of sounds. The role of extralinguistic factors as style forming ones seems to be different on segmental and suprasegmental levels and wants further investigation.

Chapter III

SYLLABIC STRUCTURE OF ENGLISH WORDS

This chapter will be concerned with the syllable as a phonetic and phonological unit. We will attempt to show what is included into the notion of the syllable and what are the approaches to the problem of the syllable. Finally we will try to describe the essential characteristics of the English syllabic system with the aim of providing a useful piece of information on the subject for the would-be teachers of English.

It is generally known that speech is a continuum. However, it can be broken into minimal pronounceable units into which sounds show a tendency to cluster or group themselves. These smallest phonetic groups are generally given the name of **syllables**. Being the smallest pronounceable units, the syllables form language units of greater magnitude, that is morphemes, words and phrases. Each of these units is characterized by a certain syllabic structure. Consequently we might say that a meaningful language unit has two aspects: syllable formation and syllable division which form a dialectical unity.

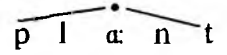
Before we look at the English syllable in detail let us consider a fairly general problem of the syllable. Here we should note that the study of the syllable has for a long time occupied an important place in linguistics as a field of theoretical investigation. Besides, a considerable body of experimental work has been done. But though phonetics has progressed far enough the problem of the syllable is still an open question in phonetics.

It is necessary to mention that the syllable is a fairly complicated phenomenon and like the phoneme it can be studied on four levels: acoustic, articulatory, auditory and functional, which means that the syllable can be approached from different points of view. The severe complexity of the phenomenon gave rise to many theories. Let us consider some of the most current ones.

Talking about the analysis of articulatory or motor aspect of the syllable we could start with the so-called **expiratory**, or chest

pulse or pressure theory which was experimentally based by R.H.Stetson (74). This theory is based on the assumption that expiration in speech is a pulsating process and each syllable should correspond to a single expiration so that the number of the syllables in an utterance is determined by the number of expirations made in the production of the utterance. This theory was strongly criticized by Soviet and foreign linguists. G.P.Torsuev, for example, writes that in a phrase a number of words and consequently syllables can be pronounced with a single expiration (31). This fact makes the validity of the pulse theory doubtful.

Another theory most often referred to is the theory of syllable put forward by O.Jespersen. It is generally called the **sonority** theory and is based on the concept of sonority. According to O.Jespersen each sound is characterized by a certain degree of sonority which is understood as acoustic property of a sound that determines its perceptibility. According to this sound property a ranking of speech sounds could be established. This starts with the open vowels as the most sonorous, continues through the close vowels, the sonorants, the voiced fricatives, the voiced plosives, the voiceless fricatives and ends with the voiceless plosives as the least sonorous. In any sequence the most sonorous sounds tend to form the center of the syllable and the least sonorous — the marginal segments. Thus in the word plant, for example, the sequence passes from the minimally sonorous [p], through [l] with a greater degree of sonority to the maximum sonorous [ɑ:]. It continues with decreasing sonority through [n] to a second minimum with [t]:



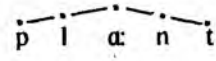
It is true that this principle seems to be very general but there are, on the other hand, syllables in many languages which contradict it. In terms of sonority variation a sequence such as an English [stɒps] *stops* should have three syllables instead of its actual one. According to V.A. Vassilyev, the most serious drawback of this theory is that it fails to explain the actual mechanism of syllable formation and syllable division (79). Besides, the concept of sonority with which the theory operates is not very clearly defined, which makes it still less consistent.

Further experimental work aimed at the description of the syllable as a phonetic phenomenon resulted in a lot of other the-

ories, such as F. de Saussure's theory, the theory of the Rumanian linguist A.Rosetti, and the theory of the Czech linguist B.Hala. The existence of such a variety of approaches to the problem of the syllable means that it is not an easy matter to describe it. That is why the theories referred to above are unable to explain more than a restricted aspect of the phenomenon, for example, the sonority theory accounts only for perceptibility of sounds, the pulse theory takes into consideration only the force of expiration, etc. Summarizing we could state that the question of articulatory (or physiological) mechanism of syllable formation is still an open question in phonetics. We might suppose that this mechanism is similar in all languages and could be regarded as phonetic and physiological universal.

In Soviet linguistics there has been adopted the theory of the syllable sketched in a very general way by L.V.Shcherba (40). It is called the theory of **muscular tension**. The point is that in most languages there is a syllabic phoneme in the centre of the syllable which is usually a vowel phoneme or, in some languages, a sonorant. The phonemes preceding or following the syllable peak are called marginal. The energy, that is the tension of articulation, increases within the range of prevocalic consonants and then decreases within the range of postvocalic consonants. Therefore the syllable can be defined as an **arc of articulatory (or muscular) tension**.

It is worth noticing that the theory has been modified by V.A.Vassilyev (79). The point is that the syllable like any other pronounceable unit can be characterized by three physical parameters: pitch, intensity and length. Within the range of the syllable these parameters vary from minimum on the prevocalic consonants to maximum on the centre of the syllable, then there is another decrease within the postvocalic consonants. So the conclusion follows: if we take into consideration the tension of articulation and the above-mentioned acoustic data on the speech production level the syllable can be treated as an arc of articulatory effort, for example:



Up till now we have spoken about theories which try to define the syllable on either of the two levels of production or perception. The Soviet linguist and psychologist N.I.Zhinkin has sug-

gested the so-called **loudness** theory which seems to combine both levels (15). The experiments carried out by N.I.Zhinkin showed that the arc of loudness on perception level is formed due to variations of the volume of pharyngeal passage which is modified by contraction of its walls. The narrowing of the passage and the increase in muscular tension which results from it reinforce the actual loudness of a vowel thus forming the peak of the syllable. So according to this theory the syllable could be thought of as the arc of loudness which correlates with the arc of articulatory effort on the speech production level since variations in loudness are due to the work of all the speech mechanisms.

It is perfectly obvious that the syllable is by no means a simple concept. No phonetician has succeeded so far in giving an exhaustive and adequate explanation of what the syllable is. The difficulties seem to arise from the various possibilities of approach to the unit. We could say there exist two points of view:

1. Some linguists consider the syllable to be a purely articulatory unit which lacks any functional value. This point of view is defended on the grounds that the boundaries of the syllable do not always coincide with those of the morphemes.

2. However the majority of linguists treat the syllable as the smallest pronounceable unit which can reveal some linguistic function.

We should note here that while trying to detine the syllable from articulatory point of view we may talk about universals, that is categories applicable for all languages. When we mean the functional aspect of the syllable it should be defined with reference to the structure of one particular language rather than in general terms with universal application because, as A.C.Gimson points out, it may be found appropriate to divide a similar sound sequence differently in different languages (57).

The definition of the syllable from the functional point of view existing in modern linguistics tends to single out the following features of the syllable:

a) a syllable is a chain of phonemes of varying length;

b) a syllable is constructed on the basis of contrast of its constituents (which is usually of vowel-consonant type);

c) the nucleus of a syllable is a vowel, the presence of consonants is optional; there are no languages in which vowels are not used as syllable nuclei, however, there are languages in which this function is performed by consonants;

d) the distribution of phonemes in the syllabic structure follows the rules which are specific enough for a particular language.

Syllable formation in English is based on the phonological opposition vowel — consonant. Vowels are usually syllabic while consonants are not, with the exception of [l], [m], [n], which become syllabic if they occur in an unstressed final position preceded by a noise consonant, for example ['lɪtl] *little*, ['blɒsəm] *blossom*, ['gɑ:dn] *garden*.

The structure of the syllable is known to vary because of the number and the arrangement of consonants. In English there are distinguished four types of syllables.

1) open	[nɜʊ]	*no*	CV
2) closed	[ɒd]	*odd*	VC
3) covered	[nɜʊt]	*note*	CV(C)
4) uncovered	[ɜʊ], [ɜʊk]	*oh, oak*	V(C)

It should be pointed out here that due to its structure the English language has developed the closed type of syllable as the fundamental one while in Russian it is the open type that forms the basis of syllable formation. The number of syllable varieties from the point of view of their structure is 23. The structure of the English syllable reveals variations in the number of pre-vocalic consonants from 1 to 3 and post-vocalic consonants from 1 to 5.

As to the number of syllables in the English word it can vary from one to eight, for example [kʌm] *come*, ['sɪtɪ] *city*, ['fæmɪlɪ] *family*; [sɪm'plɪsɪtɪ] *simplicity*, ['ʌn'nætʃərəlɪ] *unnaturally*, ['ɪnkɒmˌpætɪ'bɪlɪtɪ] *incompatibility*, ['ʌnɪnˌtelɪʤɪ'bɪlɪtɪ] *unintelligibility*.

So far we have described some of the aspects of syllabic structure of English. As was mentioned earlier, the other aspect of the dialectical unity which characterizes the speech continuum is **syllable division**. The linguistic importance of syllable division in different languages is in finding typology of syllables and syllabic structure of meaningful units of a language, that is morphemes and words. It is the syllable division that determines the syllabic structure of the language, its syllabic typology.

It is easy to understand that syllabic structure of a language like its phonemic structure is patterned, which means that the sounds of language can be grouped into syllables according to

certain rules. The part of phonetics that deals with this aspect of a language is called phonotactics. Phonotactic possibilities of a language determine the rules of syllable division.

As the phoneticians point out, in the English language the problem of syllable division exists only in case of intervocalic consonants and their clusters like in the words ['sɪtɪ] *city*, [ə'gri:] *agree*, ['ekstrə] *extra* and others. In such cases the point of syllable division is not easily found. Let us consider the first case. Theoretically two variants are possible:

a) the point of syllable division is after the intervocalic consonant;

b) the point of syllable division is inside the consonant.

In both cases the first syllable remains closed according to phonotactic rules of the English language, because the short vowel should remain checked. The results of instrumental analysis show that the point of syllable division in words like ['pɪtɪ] *pity*, ['tɒpɪk] *topic*, ['meʒə] *measure*, ['bɒbɪ] *Bobby* is inside the intervocalic consonant (19). This conclusion is of great importance for Russian learners of English. They should keep in mind that in the Russian language the stressed syllable in the structure (C)VCV(C) is always open, for example, *у-хо*, *мя-та*, *о-бувь*, while in English this kind of syllable is always closed if the syllabic vowel is short and checked. So to be able to pronounce the English words of this type correctly it is necessary to make transition from a vowel to a consonant very close.

Now let us examine another type of intervocalic consonant clusters. It is the VCCV(C) type, for example [ə'gri:] *agree*, [ə'brʌpt] *abrupt* and so on. To be able to determine the syllabic boundary in words of this type it is necessary to apply phonological criteria, the first of which might be the distribution of segmental phonemes. In the abovementioned examples the words should be divided into syllables in the following way: [ə-'gri:], [ə-'brʌpt] because such combinations of consonants as [gr], [br] are permissible initial clusters for the English language. On the other hand, there are clusters that can never be found in the word initial position and consequently should be broken by syllabic boundary, for example: [əd-'maɪə] *admire*, [əb-'hɔ:] *abhor*.

It should be pointed out that there are cases when the distributional criteria may fail. In this case when the number of intervocalic consonants is three as in the word ['ekstrə] *extra* we have to state the possible points of syllable division:

a) ['ek-strə] — back street
b) ['eks-trə] — six try
c) ['ekst-rə] — mixed ray

In such cases it is the native speaker's intuition that could be relied on. The subconscious feeling of a new pronunciation effort makes him divide the words of such types into ['ek-strə]. This natural way of division is fixed in the pronunciation dictionary.

In compound words like ['tɜustræk] *toast-rack* it is the morphological criterion that counts because the boundaries of the syllable should correspond to morpheme boundaries and so such cases present no difficulty from this point of view.

Now we shall consider two very important functions of the syllable.

The first function we should mention is known to be the **constitutive** function of the syllable. It lies in its ability to be a part of a word or a word itself. The syllable forms language units of greater magnitude, that is words, morphemes and utterances. In this respect two things should be emphasized. First, the syllable is the unit within which the relations between the distinctive features of the phonemes and their acoustic correlates are revealed (15). Second, within a syllable (or a sequence of syllables) prosodic characteristics of speech are realized, which form the stress-pattern of a word and the rhythmic and intonation structures of an utterance. In sum, the syllable is a specific minimal structure of both segmental and suprasegmental features.

The other function of the syllable is its **distinctive** function. In this respect the syllable is characterized by its ability to differentiate words and word-forms. To illustrate this a set of minimal pairs should be found so that qualitative and/or quantitative peculiarities of certain allophones should indicate the beginning or the end of the syllable.

So far only one minimal pair has been found in English to illustrate the word distinctive function in the syllable, that is [naɪ-'treɪt] *nitrate* — [naɪt-'reɪt] *night-rate*.

The distinction here lies in:

a) the degree of aspiration of [t] sounds which is greater in the first member of the opposition than in the second;

b) allophonic difference of [r]: in the first member of the opposition it is slightly devoiced under the influence of the initial [t];

c) the length of the diphthong [aɪ]: in the second member of the opposition it is shorter because the syllable is closed by a voiceless plosive [t].

It can be easily seen from the example that syllable division changes the allophonic contents of the word because, as it is generally known, the realization of the phoneme in different positions in a syllable (initial, medial, final) results in different allophones.

The analogical distinction between word combinations can be illustrated by many more examples:

an aim — a name
mice kill — my skill
an ice house — a nice house
peace talks — pea stalks
plat rack — play track

Sometimes the difference in syllabic division might be the basic ground for differentiation sentences in such minimal pairs as:

I saw her eyes. — I saw her rise.
I saw the meat. — I saw them eat.

Here we should mention another phenomenon in English which sometimes illustrates the linguistic value of the syllable. The fact is the majority of phoneticians regard the length of the syllabic vowel to be a defining characteristic of the syllable. It has been proved experimentally that the duration of a vowel increases when a rising nuclear tone occurs within it. In such cases the vowel becomes free enough to indicate the syllabic boundary line, for example:

→ Isn't this day ˌhotter?
The →days are getting hotter.

The word *hotter* in the sentence pronounced with the falling tone has the syllabic boundary within the consonant [t] because of the checked character of the [ɒ] vowel. When pronounced with a rising tone the vowel is prolonged so that it becomes free enough to indicate the syllabic boundary between [ɒ] and [t]. In such cases we might say that the syllable division here is one of the factors that differentiate the communicative types of sentences. Yet the difference is not always regularly displayed because, as was mentioned above, duration of vowels in English depends on a lot of other factors. Therefore this aspect of the problem needs some further, more detailed investigation.

Summarizing we might say that at the functional level of description the syllable could be conceived of as a smallest pro-

nounceable unit with potential linguistic importance. That is why it reveals its functional value only occasionally.

By way of conclusion we could enumerate the following peculiarities of the syllabic structure of English which should arrest the learner's attention:

1) syllabic boundary is inside intervocalic consonant preceded by vowels, for example: *Betty, racket, money, hotter*;

2) syllabic boundary is before an intervocalic consonant if it is not preceded by the above-mentioned vowels, for example: *later, speaker*;

3) the sonorants [l], [m], [n] are syllabic if they are preceded by noise consonants, for example: *little, blossom, sudden*;

4) there cannot be more than one vowel (a diphthong or a monophthong) within one syllable;

5) the typical and most fundamental syllabic structure is of (C)VC type;

6) word final consonants are normally of weak-end type.

Russian learners of English as well as would-be teachers of English should be well aware of the regularities governing the structure of monosyllabic and polysyllabic words as well as the syllabic structure of the utterance. What matters here is that wrong syllable division on the articulatory level leads to inadequate perception of phrases and consequently to misunderstanding.

Chapter IV

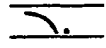
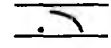
ACCENTUAL STRUCTURE OF ENGLISH WORDS

In this section we shall focus our attention on the accentual patterns of English words. The sequence of syllables in the word is not pronounced identically. The syllable or syllables which are uttered with more prominence than the other syllables of the word are said to be stressed or accented. The correlation of varying prominences of syllables in a word is understood as the accentual structure of the word or its stress pattern.

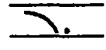
It would be perfectly natural to begin this section with the **nature of word stress**. According to A.C.Gimson, the effect of prominence is achieved by any or all of four factors: force, tone, length and vowel colour (57). The dynamic stress implies greater force with which the syllable is pronounced. In other words in the articulation of the stressed syllable greater muscular energy is produced by the speaker. European languages such as English, German, French, Russian are believed to possess predominantly dynamic word stress. In Scandinavian languages the word stress is considered to be both dynamic and musical. For instance, in Swedish, the word *komma* (comma) is distinguished from the word *komma* (come) by a difference in tones. The musical (or tonic) word stress is observed in Chinese, Japanese, Vietnamese. It is effected by the variations of voice pitch in relation to neighbouring syllables. In Chinese the sound sequence *chu* pronounced with the level tone means "pig", with the rising tone — "bamboo", with the falling tone — "to live".

The English linguists (D.Crystal (50), A.C.Gimson (57)) agree that in English word stress or accent is a complex phenomenon, marked by the variations in **force**, **pitch**, **quantity** and **quality**. The dynamic and the tonic features of English word stress prevail over the others. It should be noted that when the tonic or musical component of word stress is involved it is the change of pitch level that is significant in making the syllable prominent, but not the type of tone direction.

Let us turn to some examples. If the words *'import* (n) and *im'port* (v) are said on a level tone and each vowel with its own length, it is rather difficult to distinguish them. The tonic or musical component may be helpful in defining the place of stress in a word as it is observed within the syllable marked by the pitch change, which contributes to the syllable prominence.

'Import.  Im'port. 

The placement of the pitch change marks the seat of the stress. It should be noted here that the very type of pitch change, its direction, does not influence the word stress, e.g.

'Import.  'Import? 

The pitch direction is changed but the stress remains unchanged.

On the other hand, a whole idea may be conveyed by uttering a single word (one-word phrase). Then we shall deal with the sentence stress and the musical component of intonation. There is undoubtedly a close interrelation between word stress and sentence stress.

The nature of word stress, the interrelation of its components is still a problem which is awaiting its solution.

As to the quantitative and qualitative components of word stress they are also significant. Certain distinctions of the vowel length and colour are reduced or lacking in unstressed syllables. The fact strengthens the idea that the accentuation is influenced by the vowel length and quality. The vowel of the stressed syllable is perceived as never reduced or obscure and longer than the same vowel in the unstressed syllables. Thus, the word "stress" or "accent" is also defined as qualitative where the vowel colour or qualily is a means of stress and quantitative with relatively increased length of the stressed vowel. Compare the quality (colour) and quantity (length) of the same vowel in a word, e.g. *ab'stract*, *'car-park*; *ugú*, *úлu*, *умý*.

It is fair to mention that there is a terminological confusion in discussing the nature of stress. According to D.Crystal (50) the terms "heaviness, sound pressure, force, power, strength, intensity, amplitude, prominence, emphasis, accent, stress" tend to be

used synonymously by most writers. The discrepancy in terminology is largely due to the fact that there are two major views depending on whether the productive or receptive aspects of stress are discussed. The main drawback with any theory of stress based on production of speech is that it only gives a parlial explanation of the phenomenon but does not analyse it on the perceptive level. Instrumental investigations study the physical nature of word stress. On the acoustic level the counterpart of force is the intensity of the vibrations of the vocal cords of the speaker which is perceived by the listener as loudness. Thus the greater energy with which the speaker articulates the stressed syllable in the word is associated by the listener with greater loudness. The acoustic counterparts of voice pitch and length are frequency and duration respectively.

The nature of word stress in Russian seems to differ from that in English. The quantitative component plays a greater role in Russian accentual structure than in English word accent. In the Russian language we never pronounce vowels of full formation and full length in unstressed positions, they are always reduced. Therefore the vowels of full length are unmistakably perceived as stressed. In English the quantitative component of word stress is not of primary importance because of the nonreduced vowels in the unstressed syllables which sometimes occur in English words, e.g. *'architect, 'transport, 'partake.*

Russian phoneticians (L.V.Zlatoustova; 17, L.L.Bulanin, 9) insist on the quantitative character of the Russian word stress as its principal feature, though other components of word stress in Russian are not denied.

We would like to dwell on the term **prominence** here. It seems to cause some ambiguity when related to word stress. The stressed syllables are often said to be the most prominent syllables in the word. According to G.P.Torsuev the notions "stressed" and "prominent" should not be used synonymically (31). The effect of prominence is created by some phonetic features of sounds which have nothing to do with word or sentence stress. It is common knowledge that sounds of speech have different degrees of sonority. Vowels are more sonorous than consonants. Open vowels are more sonorous than close ones. Sonority is the inner quality of vowels which is not directly connected with the accentual structure of words but with other articulatory characteristics, it contributes to the effect of prominence.

Another characteristic of a vowel which also adds to the effect of prominence but is not connected with the word stress is historical (traditional) length of vowels. The presence of a traditionally long sound in the stressed syllable and a traditionally short vowel in the unstressed syllable adds to the effect of the prominence of the stressed syllable, e.g. [ɪn'kri:s], [bɪ'li:v], ['i:zɪ].

Naturally the historical length of vowels is the vowel inner quality which should not be mixed with the quantitative characteristics of word stress.

To sum it up prominence in speech is a broader term than stress. It is obtained by the components of word stress, such as the loudness, the length, the quality of the vowel plus the inherent sonority of the vowel and its historical length. In a discourse the effect of prominence may be strengthened by the melody which is the component of intonation.

Languages are also differentiated according to **the placement of word stress**. The traditional classification of languages concerning place of stress in a word is into those with a fixed stress and those with a free stress. In languages with a fixed stress the occurrence of the word stress is limited to a particular syllable in a multisyllabic word. For instance, in French the stress falls on the last syllable of the word (if pronounced in isolation), in Finnish and Czech it is fixed on the first syllable, in Polish on the one but last syllable. Some foreign words borrowed into Russian and proper names retain the original stresses and give an idea of the fixed word stress, e.g.

French: Париж, кашне, партер
Finnish: Хельсинки, сауна
Czech: Злата Прага, Карловы Вары
Polish: Варшава, Катовице, Познань.

In languages with a free stress its place is not confined to a specific position in the word. In one word it may fall on the first syllable, in another on the second syllable, in the third word — on the last syllable, etc.

The free placement of stress is exemplified in the English and Russian languages, e.g.

English: 'appetite — be'ginning — ba'lloon
Russian: о́зеро — пого́да — молоко́

The word siress in English as well as in Russian is not only free but it may also be shifting, performing the semantic function of differentiating lexical units, parts of speech, grammatical forms. It is worth noting that in English word stress is used as a means of word-building, in Russian it marks both word-building and word formation, e.g.

'contrast — con'trast
'habit — ha'bitual
'music — mu'sician

до́ма — дома́; чу́дная — чудна́я
во́ды — воды́; ко́зы — козы́

There are actually as many **degrees of stress** in a word as there are syllables. A.C.Gimson, for example, shows the distribution of the

3 2 4 1 5

degrees of stress in the word *examination*. The opinions of phoneticians differ as to how many degrees of stress are linguistically relevant in a word. The British linguists usually distinguish three degrees of stress in the word. The primary stress is the strongest, it is marked by number 1 in the, word *examination*, the secondary stress is the second strongest marked by 2. All the other degrees are termed weak stress. Unstressed syllables are supposed to have weak stress. The American scholars B.Bloch and G.Trager find four contrastive degrees of word stress, namely: loud, reduced loud, medial and weak stresses (45). Other American linguists also distinguish four degrees of word stress but term them: primary stress, secondary stress, tertiary stress and weak stress. The difference between the secondary and tertiary stresses is very subtle and seems subjective. The criteria of their difference are very vague. The second pretonic syllables of such words as *ˌlibe'ration*, *ˌrecog'nition* are marked by secondary stress in RP, in General American they are said to have a tertiary stress. In GA a tertiary stress also affects the suffixes *-ory*, *-ary*, *-ony* of nouns and the suffixes *-ate*, *-ize*, -y of verbs, which are considered unstressed in RP, e.g. *'terriˌtory*, *'cereˌmony*, *'dictioˌnary*; *'demonstˌrate*, *'orgaˌnize*, *'simpliˌfy*.

British linguists do not always deny the existence of tertiary stress as a tendency to use a tertiary stress on a post-tonic syllable in RP is also traced. However, the British conception of three degrees of word stress is accepted as the teaching norm.

We would like to point out right here that the accentual structure of English words is liable to instability due to the different origin of several layers in the Modern English wordstock. In Germanic languages the word stress originally fell on the initial syllable or the second syllable, the root syllable in the English words with prefixes. This tendency was called **recessive**. Most English words of Anglo-Saxon origin as well as the French borrowings (dated back to the 15th century) are subjected to this recessive tendency. Unrestricted recessive tendency is observed in the native English words having no prefix, e.g. *mother, daughter, brother, swallow*, in assimilated French borrowings, e.g. *reason, colour, restaurant*. Restricted recessive tendency marks English words with prefixes, e.g. *foresee, begin, withdraw, apart*. A great number of words of Anglo-Saxon origin are monosyllabic or disyllabic, both notional words and form words. They tend to alternate in the flow of speech, e.g. *I 'don't be'lieve he's 'right*.

The rhythm of alternating stressed and unstressed syllables gave birth to the **rhythmical** tendency in the present-day English which caused the appearance of the secondary stress in the multisyllabic French borrowings, e.g. *ˌrevo'lution, ˌorgani'sation, asˌsimi'lation*, etc. It also explains the placement of primary stress on the third syllable from the end in three- and four-syllable words, e.g. *'cinema, 'situate, ar'ticulate*. The interrelation of both the recessive and the rhythmical tendencies is traced in the process of accentual assimilation of the French-borrowed word *personal* on the diachronic level, e.g. *perso'nal — 'perso'nal — 'personal*.

The appearance of the stress on the first syllable is the result of the recessive tendency and at the same time adaptation to the rhythmical tendency. The recessive tendency being stronger, the trisyllabic words like *personal* gained the only stress on the third syllable from the end, e.g. *'family, 'library, 'faculty, 'possible*.

The accentual patterns of the words *'terriˌtory, 'dictioˌnary, 'necesˌsary* in GA with the primary stress on the first syllable and the tertiary stress on the third are other examples illustrating the correlation of the recessive and rhythmical tendencies. Nowadays we witness a great number of variations in the accentual structure of English multisyllabic words as a result of the interrelation of the tendencies. The stress on the initial syllable is caused by the diachronical recessive tendency or the stress on the second syllable under the influence of the strong rhythmical tendency of the present day, e.g. *'hospitable — ho'spitable*,

'distribute — dis'tribute, 'aristocrat — a'ristocrat, 'laryngoscope — la'ryngoscope.

A third tendency was traced in the instability of the accentual structure of English word stress, the **retentive** tendency: a derivative often retains the stress of the original or parent word, e.g. *'similar — as'similate, ˌrecom'mend — ˌrecommen'dation.*

The numerous variations of English word stress are systematized in the **typology of accentual structure** of English words worked out by G.P.Torsuev (31). He classifies them according to the number of stressed syllables, their degree or character (the main and the secondary stress). The distribution of stressed syllables within the word accentual types forms accentual structures of words, e.g. the accentual type of words with two equal stresses may be presented bv several accentual structures: *'well-'bred* [ˊˊ], *'absent-'minded* [ˊ–ˊ–], or *'good-'looking* [ˊˊ–]. Accentual types and accentual structures are closely connected with the morphological type of words, with the number of syllables, the semantic value of the root and the prefix of the word.

The accentual types are:

I. [ˊ–]. This accentual type marks both simple and compound words. The accentual structures of this type may include two and more syllables, e.g. *'father, 'possibly, 'mother-in-law, 'gas-pipe.*

II. [ˊˊ]. The accentual type is commonly realized in compound words, most of them are with separable prefixes, e.g. *'radio-'active, 're'write, 'diso'bey.*

III. [ˊˊˊ] and IV. [ˊˊˊˊ]. The accentual types are met in initial compound abbreviations like *'U'S'A, 'U'S'S'R.*

V [ˊˏ–]. The type is realized both in simple and compound words, very common among compound words, e.g. *'hair-ˌdresser, 'sub,structure.*

VI. [ˏˊ–]. The accentual type marks a great number of simple words and some compound words as well. In simple words the stresses fall onto:

1. the prefix and the root: *ˌmaga'zine;*
2. the root and the suffix: *ˌhospi'tality;*
3. the prefix and the suffix: *ˌdisorgani'zation.*

VII. [ˊˏˊ–]. The type includes rather a small number of simple words with the separable prefixes, e.g. *'misˌrepre'sent.*

VIII. [ˏ ˏ ˊ _]. The type is found in a very small number of words, usually simple words with the stresses on the prefix, the root and the suffix, e.g. *ˌindiˌviduali'zation*.

IX [ˊ ˊ ˏ _]. The type is met in rare instances of compound words with separable prefixes, e.g. *'un'sea,worthy*.

X. [ˊ _ ˏ ˏ]. The type is represented by rare instances of simple and compound words, e.g. *'soda-ˌwater ˌbottle*.

XI. [ˏ ˊ ˏ]. The type is found in rare instances of compound words consisting of the three components, e.g. *ˌginger'beer-ˌbottle*.

The data given above suggest an idea of the great variability in the accentual structure of English words. The most widely spread among the enumerated accentual types are supposed to be Type I [ˊ _], Type II [ˊ ˊ], Type V [ˊ ˏ] and Type VI [ˏ ˊ]. Each type includes varieties of definite accentual structures with different numbers of syllables and marks thousands of words. So the four of them cover the main bulk of most common English words and are therefore most typical for the English vocabulary. As we may see, the typical feature of English accentual structure is its instability. There is a great number of words having variants of their accentual patterns. They may differ in:

1) number of stresses: *USSR* [ˊ ˊ ˊ ˊ] or [ˊ _ _ _];

2) the place of stress: *hospitable* [ˊ _ _ _] or [_ ˊ _ _];

3) the degree of stress: *individualization* [ˏ _ ˏ _ ˊ _] or [ˊ _ ˏ _ ˊ _].

The variability of the word accentual structure is multiplied in connected speech. The accentual structure of words may be altered under the influence of rhythm, e.g.

An 'unpolished 'stone. But: The 'stone was un'polished.
'Find 'page four'teen. But: We 'counted 'fourteen 'birds.

The tempo of speech may influence the accentual pattern of words. With the quickening of the speed the carefulness of articulation is diminished, the vowels are reduced or elided, the secondary stress may be dropped, e.g.

The 'whole organi'zation of the 'meeting was 'faulty.

The variability of the English word accentual structure presents great difficulty for students of English. They should be well acquainted with the four most widely spread accentual types of words, mentioned above and be aware of the modifications of word accentual patterns influenced by rhythm and tempo in connected speech.

The given examples of the accentual structure of words in connected speech show that the word stress is closely interrelated with sentence stress. We shall now try to see their similarity and difference. The demarcation of word stress and sentence stress is very important both from the theoretical and the practical viewpoint. Sentence stress usually falls on the very syllable of the word which is marked by word stress. Thus the accentual structure of the word predetermines the arrangement of stresses in a phrase. At the same time the stress pattern of a phrase is always conditioned by the semantic and syntactical factors. The words which usually bccome stressed in a phrase are notional words. They convey the main idea of the phrase, though any word including form words may be marked by sentence stress, if it has certain semantic value in the sentence.

The common character of word stress and sentence stress is also observed in their rhythmical tendency to alternate stressed and unstressed syllables and pronounce them at approximately equal intervals.

Now we should like to distinguish the notions of word stress and sentence stress. They are first of all different in their sphere of application as they are applied to different language units: word stress is naturally applied to a word, as a linguistic unit, sentence stress is applied to a phrase.

Secondly, the distinction of the rhythmic structure of a word and a phrase is clearly observed in the cases when the word stress in notional words is omitted in a phrase, e.g.

I 'don't think he is 'right.

Or when the rhythmic structure of the isolated word does not coincide with that of a phrase, e.g.

'Fifteen. 'Room Fif'teen. 'Fifteen 'pages.

So in a speech chain the phonetic structure of a word obtains additional characteristics connected with rhythm, melody, and tempo. Though the sentence stress falls on the syllable marked

by the word stress it is not realized in the stressed syllable of an isolated word but in a word within speech continuum. Since the spheres of word stress and sentence stress fall apart their functions are actually different. Sentence stress organizes a sentence into a linguistic unit, helps to form its rhythmic and intonation pattern, performs its distinctive function on the level of a phrase.

In discussing accentual structure of English words we should turn now to the **functional aspect of word stress**. Word stress in a language performs three functions.

I. Word stress constitutes a word, it organizes the syllables of a word into a language unit having a definite accentual structure, that is a pattern of relationship among the syllables; a word does not exist without the word stress. Thus the word stress performs the constitutive function. Sound continuum becomes a phrase when it is divided into units organized by word stress into words.

II. Word stress enables a person to identify a succession of syllables as a definite accentual pattern of a word. This function of word stress is known as identificatory (or recognitive). Correct accentuation helps the listener to make the process of communication easier, whereas the distorted accentual pattern of words, misplaced word stresses prevent normal understanding.

III. Word stress alone is capable of differentiating the meaning of words or their forms, thus performing its distinctive function. The accentual patterns of words or the degrees of word stress and their positions form oppositions, e.g. *'import — im'port, 'billow — be'low.*

V.A.Vassilyev introduces the term "accenteme" for word stress as a suprasegmental phonological unit having different degrees and placement in a word (79). For instance the primary accenteme is opposed to the weak word accenteme (unstressed position), in *'import — im'port* differentiating the noun from the verb. A.C.Gimson establishes three groups of words with identical spelling representing different parts of speech which are opposed by means of shifting of the stress (57).

1. A small group of words where the noun is differentiated from a verb by the opposition of the accentual pattern of the word alone, e.g.

increase	['ɪnkri:s]	—	[ɪn'kri:s]
insult	['ɪnsʌlt]	—	[ɪn'sʌlt]
impress	['ɪmpres]	—	[ɪm'pres]
inlay	['ɪnleɪ]	—	[ɪn'leɪ]

2. The second group where the shifting of the stress which means the change of the accentual pattern of the word may be or may not be accompanied by the reduction of the vowel in the unstressed syllable of the verbs, e.g.

transport	['trænspɔ:t]	—	[træns'pɔ:t]	or	[trəns'pɔ:t]
torment	['tɔ:ment]	—	[tɔ:'ment]	or	[tə'ment]

3. The largest group of such pairs of words manifests the change of their accentual pattern together with the qualitative reduction of the unstressed vowel, e.g.

combine	['kɒmbaɪn]	—	[kəm'baɪn]
conduct	['kɒndʌkt]	—	[kən'dʌkt]
contrast	['kɒntrɑ:st]	—	[kən'trɑ:st]

and many others.

Oppositions of accentual types of words are also observed as a concomitant factor in word-formation in addition to suffixation.

1. [◢‒‒] — [◤‒◢] e.g. 'organize — ˌorgani'zation
   'substitute — ˌsubsti'tution
2. [◢◢‒‒] — [◢◤‒◢‒] e.g. 're'organize — 're,organi'zation
   'predis'pose — 'pre,dispo'sition
3. [◢‒‒] — [◢‒‒◢] e.g. 'palatalize — 'palatali'zation
   'solemn — 'solemni'zation
4. [◤‒◢] — [◢‒◤‒◢‒] e.g. ˌincon'siderable — 'incon,side'ration

and others.

There is also a group of accentuation oppositions where compound nouns are opposed to free word combinations, e.g.

a 'blackboard	классная доска
a 'black 'board	черная доска
a 'dancing-qirl	танцовщица
a 'dancing 'girl	танцующая девушка

As we have already mentioned, the same distinctive function of word stress is observed in the Russian language. It differentiates words and their grammatical forms, e.g.

The words *чу́дная — чудна́я, безобра́зная — безо́бразная* are different lexical units, they differ in meaning.

The words *зи́мы — зимы́, бе́ды — беды́* represent different grammatical forms of the same lexical unit. Both in word-building and in word-formation the shifting of stress is accompanied by the qualitative reduction of the unstressed syllable. Word-formation with the help of the shifting of stress is quite common in Russian as well as in English.

The accentual structure of words is actually very closely interrelated with their semantic value. By way of illustration we shall now analyse a fairly large class of words in English which are marked by two primary stresses (Accentual Type II). They are either compounds consisting of two semantically important stems or words with semantically relevant separable prefixes or the suffix *-teen*. The accentual pattern of this group of words is regulated by the meaningful weight of the elements of the compounds. Word stress establishes contrastive relationship of the elements and often creates opposition to comparable words.

Most of compound adjectives have two equal stresses as both elements in them are semantically important, e.g. *'absent-'minded, 'left-'handed, 'good-'looking.*

As soon as the significance of one of the elements of a compound adjective is weakened, its accentual pattern is changed. (Accentual Type I), e.g. *'spring-like, 'nymph-like, 'powder-like; 'oval-shaped, 'bow-shaped.*

The same tendency is observed in compound nouns: if their elements are semantically important both elements are equally stressed (Accentual Type II), e.g. *'north-'east, 'north-'west, 'south-'west.*

At the same time, as we very well know, most of compound nouns have one stress on the first element which is more significant than the second one. They are sometimes opposed to other compounds with the same second element, e.g. *'dining-room — 'bedroom — 'bathroom — 'living-room; 'shop-girl — 'ballet-girl.*

Compound verbs have two equal stresses as their postpositions change the actual meaning of the verb itself as it is illustrated in the following example:

What shall I do with it?
— 'Put it where it ˌwas.
— 'Put it ˌon.
— 'Put it ˌoff.

Oppositions are also found among compound verbs:

to 'switch 'on — to 'switch 'off
to 'turn 'on — to 'turn 'off

Words with meaningful prefixes are likewise semantically opposed to those without prefixes. Compare:

'educated — 'un'educated
'regular — 'ir'regular
'please — 'dis'please
'cyclone — 'anti'cyclon
ˌunder'stand — 'misunder'stand

Compound numerals have naturally two equal stresses, making both elements significant, e.g. *'twenty-'three, 'sixty-'five.*

Numerals with the *-teen* suffix are marked by two stresses to oppose them to the numerals with the unstressed suffix *-ty*. If the suffix *-teen* is not stressed the vowel [i:] in it is shortened and obscured, the sonant [n] is weakened, there is consequently a danger of misunderstanding, e.g.

— 'What ˌpage is it? ||
— 'Seven ˌteen. ||
— 'Seven ˌteen | or ˌseventy? |||

The above-given illustrations show how important it is in teaching practice to make the students realize that the accentual structure of words is conditioned by the semantic interrelation of their elements. The teacher should attract the students' attention to the correlation between the accentual and semantic structures of words which will save the students many mistakes.

The regulation of the accentuation in the Russian language is too complicated and is practically unpredictable. The stress may fall on the same morpheme in the derivatives where word-formation is performed by the grammatical means alone, e.g. *ко́жа — кожи — кожей — кожу; год — годы — годом.* In another group of words the stress may effect different morphemes of the word participating in the word-formation alongside with the grammatical means, e.g. *сад — сады — садами — садом; пар — пары — парами — паром;* but: *пара — пары — парами — парам.*

R.I.Avanesov considers the variability in the placement of the Russian word stress an individual sign of every particular word which presents a difficulty for foreign learners and sometimes for the natives (1).

It is interesting to note that Russian word stress may have stylistic distinction and poetic usage, cf. *молоде́ц — мо́лодец, девица́ — де́вица, ше́лковый — шелко́вый.*

The complicated system of the accentual structure of English words makes teacher trainees be very attentive to the subject. The typical mistakes of Russian learners in the sphere of word stress are the mispronunciation of: 1) words with the main and secondary stresses (*ˌconver'sational*); 2) words with two equal stresses in connected speech (*'up'stairs, 're'organize*); 3) words with the full vowel in the unstressed syllable (*'architect*).

The instability of English accentual structure of words presents much difficulty for Russian learners. Students' attention should be attracted to English multisyllabic words the accentual structure of which is regulated by the rhythmical tendency and the use of the secondary stress in those words, as it has no analogy in the Russian language, compare: *'transpor'tation — транспортиро́вка, deˌmocrati'zation — демократиза́ция.*

Anolher group of words presenting difficulty for Russian learners is large group of compounds which are marked either by two equal stresses (compound adjectives) or by one stress (compound nouns). The semantic factor in defining the accentual structure of compounds should be most decisive, as it has been illustrated above. One more group of words requires learners' attention, the group which forms accentual oppositions of different parts of speech by way of conversion accompanied by the shifting of stress, e.g. *'combine* (n) — *com'bine* (v), *'insult* (n) — *in'sult* (v).

In case of doubt it is advisable to consult a pronouncing dictionary.

The accentual structure of English words in speech continuum is inseparably connected with the rhythmic organization of speech chain which will be thoroughly discussed in Chapter V.

Chapter V
INTONATION

STRUCTURE AND FUNCTION

After considering the system of English segmental phonemes, the syllabic structure and the accentual structure of English words we are to focus on the topic of particular theoretical and practical interest, i.e. **intonation.**

In this chapter our general aims will be: first, to present a concise, simple, yet adequate definition of intonation; second, to describe the main structural components of the intonation pattern; third, to present methods for transcribing intonation, that is a suitable way of notation; and fourth, to explore the function of intonation in various textual units, looking particularly at examples in which intonation resolves grammatical and lexical ambiguity.

Intonation is a language universal. There are no languages which are spoken as a monotone, i.e. without any change of prosodic parameters. But intonation functions in various languages in a different way.

What is the role intonation plays in the language?

The further our interests move towards some notion of communicative competence and away from the lesser ability to produce and understand grammatical sentences, the greater is the pressure one feels to take proper account of how intonation contributes to the communicative value of the act of speech.

We are beginning to realize more and more that engagement with intonation is not merely a "cosmetic" or "decorative" exercise, comparatively unimportant, but that in fact it leads one to a consideration of some quite fundamental aspects of the communicative process. Unfortunately many teachers have preferred to concentrate their attention upon the study of sounds with the result that the study of intonation is tended to lag behind. One reason for this state of affairs is that a very special skill is required in the recognition of intonation variations. This skill is more difficult to acquire than the ability to recognize strange sounds for

two reasons. Intonation is used by native speakers even more unconsciously than are sounds, and — apart from an occasional random hint thrown out by a punctuation mark or by italics — no attempt is made in print to convey intonation, whereas even in a language so abominably spelt as English the orthography continually reminds the reader of the sounds he must produce. The second reason is that we have at our disposal a far more detailed analysis of the sounds of English than of its intonation.

It happened so because early phoneticians were preoccupied with segmental phonemes rather more than with intonation.

We would like to start with the description of intonation on the auditory and acoustic levels and then pass over to its linguistic function.

It is quite impossible to describe intonation in a word or two. Sometimes the ups and downs of pitch and loudness are compared to the waves of the ocean. "The surface of the ocean responds to the forces that act upon it in movements resembling the ups and downs of the human voice" (47, p. 19).

There is wide agreement among Soviet linguists that on perception level intonation is a complex, a whole, formed by significant variations of **pitch**, **loudness** and **tempo** (i.e. the rate of speech and pausation) closely related. Some Soviet linguists regard speech timbre as the fourth component of intonation. As a matter of fact, up to now timbre has not been sufficiently investigated yet. Neither its material form nor its linguistic function have been thoroughly described. Though speech timbre definitely conveys certain shades of attitudinal or emotional meaning there is no good reason to consider it alongside with the three prosodic components of intonation, i.e. pitch, loudness and tempo.

Nowadays there is another term "**prosody**" which embraces the three prosodic components and substitutes the term "intonation". It is widely used in linguistic literature, it causes no misunderstanding and, consequently, it is more adequate. We feel strongly that this term would be more suitable for our book too, but, unfortunately, it has not been accepted in the teaching process yet.

We would like to point out that many foreign scholars have been anxious to restrict the formal definition of intonation to pitch movement alone, though occasionally allowing in variations of loudness as well (57; 66). We are firmly convinced that when the question of intonational meaning is raised it is clearly

not possible to restrict the term "intonation" by the pitch parameters only because generally all the three prosodic parameters function as a whole though in many cases the priority of the pitch parameter is quite evident. Giving priority to pitch changes we are not going to adopt a narrow definition of intonation and simplify the formal description of it at the expense of the semantic one and will allow intonation a wider definition trying to do justice to the semantic value of all the three prosodic components.

It is necessary to point out here that on the **acoustic** level pitch correlates with the fundamental frequency of the vibration of the vocal cords; loudness correlates with the amplitude of vibrations; tempo is a correlate of time during which a speech unit lasts.

Further on we shall describe intonation in the terms of **auditory** level which are more suitable for the aims of teaching. The acoustic level of prosodic parameters presents special interest for those carrying out experimental research work in the field of theoretical phonetics. With the developing of cybernetics and the constructing of teaching machines the importance of the acoustic aspect of intonation study will definitely grow.

We are going now to concentrate on the three prosodic components of intonation, that is pitch, loudness and tempo and on the way they are realized in speech.

Each syllable of the speech chain has a special pitch colouring. Some of the syllables have significant moves of tone up and down. Each syllable bears a definite amount of loudness. Pitch movements are inseparably connected with loudness. Together with the tempo of speech they form an **intonation pattern** which is the basic unit of intonation.

An intonation pattern contains one nucleus and may contain other stressed or unstressed syllables normally preceding or following the nucleus. The boundaries of an intonation pattern may be marked by stops of phonation, that is temporal pauses.

Intonation patterns serve to actualize syntagms in oral speech. It may be well to remind you here that the syntagm is a group of words which is semantically and syntactically complete. In phonetics actualized syntagms are called **intonation groups**[1]. Each intonation group may consist of one or more potential syntagms, e.g. the sentence "I think he is coming soon"

[1] The other terms used in linguistics are "sense-groups", "tone-groups", etc.

has two potential syntagms: "I think" and "he is coming soon". In oral speech it is normally actualized as one intonation group.

The intonation group is a stretch of speech which may have the length of the whole phrase[1] But the phrase often contains more than one intonation group. The number of intonation groups depends on the length of the phrase and the degree of semantic importance or emphasis given to various parts of it, cf.:

This \bed was 'not 'slept ,in. — ,This bed { was \not 'slept ,in.

An additional terminal tone on "this bed" expresses an emphasis on "this bed" in contrast to other beds.

Another example:

→Last ,summer | we \went to 'stay with my 'sister in the Cri,mea. || — →Last ,summer | we \went to 'stay with my ,sister | in the Cri,mea. ||

The phrases above might be pronounced with either two or three intonation groups which obviously affects the meaning.

Now we shall dwell on each of the prosodic constituents of intonation and see how they actualize such language units as syntagms, sentences, syntactic wholes. Among the **pitch** parameters we shall concentrate on the three of them, i.e. the distinct **variations** in the **direction of pitch**, **pitch level** and **pitch range**. Though pitch changes are of primary linguistic significance they should be viewed together with the variations of **loudness**, the second component of intonation, since it is clearly not possible to separate pitch and loudness in creating the effect of accentuation. That is why our first task is to discuss the anatomy of **pitch-and-stress** structure of the intonation pattern.

Not all stressed syllables are of equal importance. One of the syllables has the greater prominence than the others and forms the **nucleus**, or **focal point** of an intonation pattern. Formally the nucleus may be described as a strongly stressed syllable which is generally the last strongly accented syllable of an intonation pattern and which marks a significant change of pitch direction, that is where the pitch goes distinctly up or down. The nuclear tone is the most important part of the intonation pattern without which the latter cannot exist at all. On the other hand an intonation pattern may consist of one syllable which is its nucleus.

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[1] By "phrase" here we mean a sentence actualized in oral speech.

According to R.Kingdon (66) the most important nuclear tones in English and the only ones we need to distinguish in teaching are:

Low Fall — ˌNo.
High Fall — ˈNo.
Low Rise — ˊNo.
High Rise — ˌNo.
Fall-Rise — ˬNo.

The meanings of the nuclear tones are difficult to specify in general terms. Roughly speaking the falling tone of any level and range expresses "certainty", "completeness", "independence". Thus a straight-forward statement normally ends with a falling tone since it asserts a fact of which the speaker is certain. It has an air of finality, e.g.

Where's John? — He →hasn't ˌcome yet.
What's the time? — It's ↘nearly 'five o'ˌclock.

A rising tone of any level and range on the contrary expresses "uncertainty", "incompleteness" or "dependence". A general question, for instance, has a rising tone, as the speaker is uncertain of the truth of what he is asking about, e.g.

I think I'll go now. — →Are you ˌready?
Michael is coming to London. — ↘Is he 'coming ˌsoon?

Parenthetical and subsidiary information in a statement is also often spoken with a rising tone, or a mid-level tone, because this information is incomplete, being dependent for its full understanding on the main assertion, e.g.

I'm not sure I can join you now. — If you > like ⸗ we can ↘go to the 'picnic ˌlater.

Encouraging or polite denials, commands, invitations, greetings, farewells, etc. are generally spoken with a rising tone.

What shall I do now? — →Do go ˌon.
Could you join us? — →Not ˌnow.

A falling-rising tone may combine the falling tone's meaning of "assertion", "certainty" with the rising tone's meaning of dependence, incompleteness. At the end of a phrase it often conveys

a feeling of reservation; that is, it asserts something and at the same time suggests that there is something else to be said, e.g.

Do you like pop-music? — ˌSome,times. (but not in general)

At the beginning or in the middle of a phrase it is a more forceful alternative to the rising tone, expressing the assertion of one point, together with the implication that another point is to follow:

ˋThose who 'work in the ˏoffices | ˋought to take 'plenty of ˌexercise.

The falling-rising tone, as its name suggests, consists of a fall in pitch followed by a rise. If the nucleus is the last syllable of the intonation group the fall and rise both take place on one syllable — the nuclear syllable. Otherwise the rise occurs in the remainder of the tone unit, cf.:

Do you agree with him? — ˏYes.
What can I do to mend matters? — You could apˌologize ˌto her.

Where the Rise of the Fall-Rise extends to a stressed syllable after the nucleus we signal the falling-rising tone by placing the fall on the nucleus and a rise on the later stressed syllable. This will make it easier for you and your pupils to follow the intonation contour in the text.

You may know that in English there is often clear evidence of an intonation-group boundary, but no audible nuclear tone movement preceding. In such a circumstance two courses are open: either one may classify the phenomenon as a further kind of head or one may consider it to be the **level nuclear tone**. The weight of evidence seems to force the second solution, for the following reasons:

1. The final level tone is always more prominent than the others, e.g.

I'm afraid I can't manage it. — In ˋview of 'all the >circumstances | ˋwhy not 'try aˌgain?

Also the syllable on which it occurs is lengthened substantially, and there is a clear rhythmic break between what precedes and what follows.

2. This tone nearly always occurs on the last lexical item (which is not obligatory in spontaneous speech) before a phonetic boundary and this is distributionally similar to a nuclear tone.

3. In subordinate structures this tone may be replaced by a rising-type tone.

4. In non-subordinate structures this tone has a particular range of meaning (boredom, sarcasm, etc.) which is very similar in force to other nuclear semantic functions.

Low-Level tone is very characteristic of reading poetry. Though occasionally heard in reading **Mid-Level tone** is particularly common in spontaneous speech functionally replacing the rising tone. That is why it should be by no means ignored in teaching.

There are two more nuclear tones in English: Rise-Fall and Rise-Fall-Rise. But adding refinement to speech they are not absolutely essential tones for the foreign learner to acquire; and as they complicate the learning of the tones it is advisable not to teach them at any rate until the student is well advanced in his mastery of intonation. Rise-Fall can always be replaced by High Fall and Rise-Fall-Rise by Fall-Rise without making nonsense of the utterance in the way in which a foreign or other unsuitable intonation does.

The tone of a nucleus determines the pitch of the rest of the intonation pattern following it which is called the **tail**, as you probably remember. Thus after a falling tone, the rest of the intonation pattern is at a low pitch. After a rising tone the rest of the intonation pattern moves in an upward pitch direction, cf.:

\,No, Mary. — ,Well, Mary.

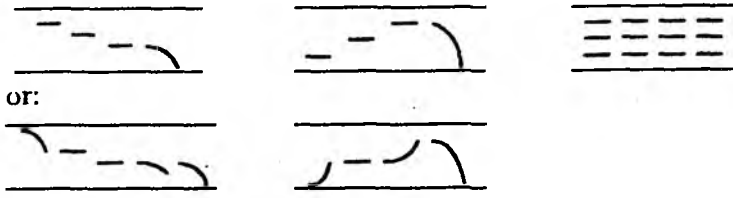
The nucleus and the tail form what is called **terminal tone**.

As you know, we hope, the two other sections of the intonation pattern are the **head** and the **pre-head** which form the pre-nuclear part of the intonation pattern and, like the tail, they may be looked upon as optional elements, e.g.

→Lake ,District | is one of the \loveliest 'parts of ,Britain.

The pre-nuclear part can take a variety of pitch patterns. Variation within the pre-nucleus does not usually affect the grammatical meaning of the utterance, though it often conveys meanings associated with attitude or phonetic styles. There are three common types of pre-nucleus: a descending type in which the pitch gradually descends (often in "steps") to the nucleus; an ascending type in which the syllables form an ascending sequence and a level type when all the syllables stay more or less on the same level:

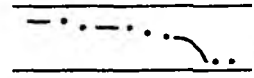
Descending type *Ascending type* *Level type*



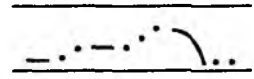
or:

For example:

↘Why are you 'making such a ˌmess of it?



ˏWhy are you 'making such a ˈmess of it?



→Why are you 'making such a ˌmess of it?

As the examples show, the different types of pre-nucleus do not affect the grammatical meaning of the sentence but they can convey something of the speaker's attitude.

Generalizing we may say that minimally an intonation pattern consists of one syllable, which is its nucleus, and in this syllable there is a melodical glide of a particular sound. Maximally it consists of three other segments: the head, the pre-head and the tail.

Two more pitch parameters which can considerably modify the pitch contour of the pitch-and-stress structure are **pitch ranges** and **pitch levels** of the whole intonation pattern or of each of its sections.

Variations in pitch range occur within the normal range of the human voice, i.e. within its upper and lower limits. For pedagogical expediency three pitch ranges are generally distinguished: normal, wide, narrow:

Normal Wide Narrow
(of low, medium and high levels)

The pitch range of a whole intonation unit is in fact the interval between the highest-pitched and the lowest-pitched syllables.

Pitch levels may be high, medium and low.

High _____

Medium _____

Low _____

The meaning of the intonation group is the combination of the "meaning" of the terminal tone and the pre-nuclear part combined with the "meaning" of pitch range and pitch level.

The parts of the intonation pattern can be combined in various ways manifesting changes in meaning, cf.: the High Head combined with the Low Fall, the High Fall, the Low Rise, the High Rise, the Fall-Rise in the phrase "Not at all!"

→Not at ˌall.
(reserved, calm)

→Not at ˈall.
(surprised, concerned)

→Not at ˌall.
(encouraging, friendly)

→Not at 'all.
(questioning)

→Not at ˬall.
(intensely encouraging, protesting)

It should be noted that the more the height of the pitch contrasts within the intonation pattern the more emphatic the intonation group sounds, cf.:

He's won. — Fanˌtastic.
—Fanˌtastic.

The number of possible combinations is more than a hundred but not all of them ate equally important. Some of them do not differ much in meaning, others are very rarely used. That is why in teaching it is necessary to deal only with a very limited number of intonation patterns, which are the result of a careful choice.

The **tempo** of speech is the third component of intonation. The term "tempo" implies **the rate of the utterance and pausation.**

The rate of speech can be **normal, slow** and **fast**. The parts of the utterance which are particularly important sound slower. Unimportant parts are commonly pronounced at a greater speed than normal, e.g.:

"My mother thinks him to be a common labouring boy," said Betty with a sad smile.

The word combination "...a common labouring boy" expresses the main idea of the phrase and is the slowest part of the utterance; "My mother thinks him to be" is pronounced at normal speed; the author's words "said Betty with a sad smile" are pronounced very quickly to underline their secondary importance for the utterance.

Any stretch of speech can be split into smaller portions, i.e. phonetic wholes[1], phrases, intonation groups by means of pauses. By "**pause**" here we mean a complete stop of phonation. For teaching expediency it is sufficient to distinguish the following three kinds of pauses:

1. Short pauses which may be used to separate intonation groups within a phrase.

2. Longer pauses which normally manifest the end of the phrase.

3. Very long pauses, which are approximately twice as long as the first type, are used to separate phonetic wholes.

Functionally, there may be distinguished **syntactic, emphatic** and **hesitation** pauses.

Syntactic pauses separate phonopassages, phrases, intonation groups.

Emphatic pauses serve to make especially prominent certain parts of the utterance, e.g.

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[1] By "phonetic whole" here we mean a chain of oral speech which is semantically and intonationally complete. A phonetic whole may be equal to a phrase or include several phrases.

She is the most ⌇ charming girl I've ever seen.

Hesitation pauses are mainly used in spontaneous speech to gain some time to think over what to say next. They may be silent or filled, e.g.

She is rather a ... good student.
— Where does she live? — Um, not very far from here.

It is well to point out here that our ear can also perceive a pause when there is no stop of phonation at all. It may happen because a stop of phonation is not the only factor indicating an intonation unit boundary. The first and the main factor is a perceivable pitch change, either stepping down or stepping up, depending on the direction of nuclear tone movement. The other criterion is the presence of junctural features at the end of each intonation group. This usually takes the form of a pause but there are frequently accompanying segmental phonetic modifications (variations in tempo, aspiration etc.) which reinforce this. So the intonation unit boundary is not necessarily indicated by a complete stop of phonation.

The changes of pitch, loudness and tempo are not haphazard variations. The rules of change are highly organized. No matter how variable the individual variations of these prosodic components are they tend to become formalized or standardized, so that all speakers of the language use them in similar ways under similar circumstances. These abstracted characteristics of intonation structures may be called intonation patterns which form the prosodic system of English.

Some intonation patterns may be completely colourless in meaning: they give to the listener no implication of the speaker's attitude or feeling. They serve a mechanical function — they provide a mold into which all sentences may be poured so that they achieve utterance. Such intonation patterns represent the intonational minimum of speech and are very helpful for beginners in language learning.

NOTATION

What is the best suitable way of representing intonation in the text?

There are a variety of methods for recording intonation patterns in writing and we can look at the advantages and disad-

vantages of some of the commoner ones. The first three methods reflect variations in pitch only:

1. The method introduced by Ch. Fries (56) involves drawing a line around the sentence to show relative pitch heights:

He's gone to the | of|fice.

2. According to the second method the syllables are written at different heights across the page. The method is particularly favoured by D.Bolinger (47), for example:

I ^{ab}solutely de^{ny} it.

Bolinger's book of reading has the cover title:

a
ton t
i
In o
n

This method is quite inconvenient as its application wants a special model of print.

3. According to the third, "levels" method, a number of discrete levels of pitch are recognized, and the utterance is marked accordingly. This method was favoured by some American linguists such as K.Pike (71) and others who recognized four levels of pitch, low, normal, high and extra-high, numbering them from 1—4. Since most linguists who have adopted this method have favoured low-to-high numbering, we shall use this in our example:

^{2}
He's gone to the ^{3}o^{1}ffice.

This notation corresponds to the pattern of the example illustrating the first method.

4. The fourth method is favoured by most of the British phoneticians such as D.Jones, R.Kingdon, J.D.O'Connor and G.F.Arnold, M.Halliday, D.Crystal and others, as well as by Soviet phoneticians who have successfully developed and improved it. This method has a number of advantages. Firstly, not only variations of pitch but also stressed syllables are marked. Secondly, distinct modifications of pitch in the nuclear syllable are indicated by special symbols, i.e. by a downward and an up-

ward arrow or a slantwise stress mark. More than that. Pitch movements in the pre-nuclear part can be indicated too. Thirdly, it is very convenient for marking intonation in texts.

One of the disadvantages of this method is that there has been no general agreement about the number of terminal tones and pre-nuclear parts English intonation system requires in order to provide an adequate description. So the simplest (D.Jones) recognizes only two tones, a fall and a rise — easy to distinguish, but not sufficient for the phonological analysis. We should definitely give preference to a more complex system, such as J.D.O'Connor and G.F.Arnold's, which has no fewer than ten different nuclear tones. It is quite sufficient for teaching pronunciation even to high-levelled learners. The most detailed indication of the pre-nuclear part of the intonation pattern is introduced in the textbook "Практическая фонетика английского языка" (28) in which J.D.O'Connor and G.F.Arnold's system has undergone further modification. All the relevant pitch changes in the pre-nuclear part are indicated by arrows placed before the first stressed syllable instead of an ordinary stress-mark, cf.:

That 'isn't as 'simple as it ˈsounds.

That →isn't as 'simple as it ˈsounds.
That ↘isn't as 'simple as it ˈsounds.
That ↗isn't as 'simple as it ˈsounds.

We believe it is clear from the above that this system deserves recognition not only because it reflects all relevant variations of the two prosodic components of intonation but also because it serves a powerful visual aid for teaching pronunciation.

Our further point will be the description of intonation in the **functional** level. The problem that has long ago been with us becomes more pressing — how to capture in a meaningful and useful summary, just what intonation contributes. How can teachers and learners get a working grasp of its significance? And, finally, what is a typical use of intonation in a language like English?

Intonation is a powerful means of human intercommunication. So we shall consider the communicative function the main function of intonation. One of the aims of communication is the exchange of information between people. The meaning of an

English utterance, i.e. the information it conveys to a listener, derives not only from the grammatical structure, the lexical composition and the sound pattern. It also derives from variations of intonation, i.e. of its prosodic parameters.

The communicative function of intonation is realized in various ways which can be grouped under five general headings. Intonation serves:

1. To structure the **information content** of a textual unit so as to show which information is new or cannot be taken for granted, as against information which the listener is assumed to possess or to be able to acquire from the context, that is given information.

2. To determine the **speech function** of a phrase, i.e. to indicate whether it is intended as a statement, question, command, etc.

3. To convey connotational meanings of "**attitude**" such as surprise, annoyance, enthusiasm, involvement, etc. This can include whether meaning are intended, over and above the meanings conveyed by the lexical items and the grammatical structure. For example, the sentence: "Thanks for helping me last night" can be given more than one meaning. The difference between a sincere intention and a sarcastic one would be conveyed by the intonation. Note that in the written form, we are given only the lexics and the grammar. The written medium has very limited resources for marking intonation, and the meanings conveyed by it have to be shown, if at all, in other ways.

4. **To structure a text.** As you know, we hope, intonation is an organizing mechanism. On the one hand, it **delimitates** texts into smaller units, i.e. phonetic passages, phrases and intonation groups, on the other hand, it integrates these smaller constituents forming a complete text.

5. **To differentiate** the meaning of **textual units** (i.e. intonation groups, phrases and sometimes phonetic passages) of the same grammatical structure and the same lexical composition, which is the distinctive or phonological function of intonation.

6. To characterize a particular style or variety of oral speech which may be called the **stylistic** function.

There is no general agreement about either the number or the headings of the functions of intonation which can be illustrated by the difference in the approach to the subject by some

prominent Soviet phoneticians. T.M.Nikolajeva names the three functions of intonation: delimitating, integrating and semantic functions (24). L.K.Tseplitis suggests the semantic, syntactic and stylistic functions the former being the primary and the two latter being the secondary functions (35); N.V.Cheremisina singles out the following main functions of intonation: communicative, distinctive (or phonological), delimitating, expressive, appellative, aesthetic, integrating (36). Other Soviet and foreign phoneticians also display some difference in heading the linguistic functions of intonation.

Summarizing we may say that intonation is a powerful means of communication process. It follows from this that it is definitely not possible to divorce any function of intonation from that of communication. No matter how many functions are named, all of them may be summed up under a more general heading, that is the **function of communication**. It should be pointed out here that the structuring functions of intonation mentioned above (delimitating and integrating functions) should be viewed alongside with other functions serving the purpose of communication.

The descriptions of intonation show that phonological facts of intonation system are much more open to question than in the field of segmental phonology. Descriptions differ according to the kind of meaning they regard intonation is carrying and also according to the significance they attach to different parts of the tone-unit. J.D.O'Connor and G.F.Arnold assert that a major function of intonation is to express the speaker's attitude to the situation he is placed in, and they attach these meanings not to prehead, head and nucleus separately, but to each of ten "tone-unit types" as they combine with each of four sentence types, statement, question, command and exclamation.

M.Halliday supposes that English intonation contrasts are grammatical. He argues first that there is a neutral or unmarked tone choice and then explains all other choices as meaningful by contrast (59). Thus if one takes the statement "I don't know" the suggested intonational meanings are:

Low Fall — neutral
Low Rise — non-committal
High Rise — contradictory
Fall-Rise — with reservation
Rise-Fall — with commitment

Unlike J.D.O'Connor and G.F.Arnold, M.Halliday attributes separate significance to the pre-nuclear choices, again taking one choice as neutral and the other(s) as meaningful by contrast.

D.Crystal presents an approach based on the view "that any explanation of intonational meaning cannot be arrived at by seeing the issues solely in either grammatical or attitudinal terms". He ignores the significance of pre-head and head choices and deals only with terminal tones. He supports R. Quirk's view that a tone unit has a falling nucleus unless there is some specific reason why it should not and illustrates this statement by observing that non-final structures are marked as such by the choice of low- or mid-rising or level tones (50).

There are other similar approaches which possess one feature in common: all of them pay little attention to the phonological significance of pitch level and pitch range.

The approach we outline in this book is different again. On the phonological level intonation is viewed as a complex structure of all its prosodic parameters. We see the description of intonation structure as one aspect of the description of interaction and argue that intonation choices carry information about the structure of the interaction, the relationship between and the discourse function of individual utterances, the international "givenness" and "newness" of information and the state of convergence and divergence of the participants.

Now we shall have a brief outlook on how intonation functions as a means of communication. One of the functions of intonation is too structure the information content of an intonation group or a phrase so as to show which information is new, as against information which the listener is assumed to possess or to be able to acquire from the context.

In oral English the smallest piece of information is associated with an intonation group, that is a unit of intonation containing the nucleus.

There is no exact match between punctuation in writing and intonation groups in speech. Speech is more variable in its structuring of information than writing. Cutting up speech into intonation groups depends on such things as the speed at which you are speaking, what emphasis you want to give to the parts of the message, and the length of grammatical units. A single phrase may have just one intonation group; but when the length of phrase goes beyond a certain point (say roughly ten words), it

is difficult not to split it into two or more separate pieces of information, e.g.

The man told/us we could park it here.
The man told us | we could park it at the railway station.

The man told us | we could park it | in the street over there.

Accentual systems involve more than singling out important words by accenting them. Intonation group or phrase accentuation focuses on the nucleus of these intonation units. The nucleus marks the focus of information or the part of the pattern to which the speaker especially draws the hearer's attention. The focus of information may be concentrated on a single word or spread over a group of words.

Out of the possible positions of the nucleus in an intonation group, there is one position which is normal or unmarked, while the other positions give a special or marked effect. In the example: "He's gone to the office" the nucleus in an unmarked position would occur on "office". The general rule is that, in the unmarked case, the nucleus falls on the last lexical item of the intonation group and is called the **end-focus**. In this case sentence stress is normal.

But there are cases when you may shift the nucleus to an earlier part of the intonation group. It happens when you want to draw attention to an earlier part of the intonation group, usually to contrast it with something already mentioned, or understood in the context. In the marked position we call the nucleus **contrastive focus** or **logical sentence stress**. Here are some examples:

"Did your brother study in Moscow?" "\No, { he was \born in Moscow."

In this example contrastive meaning is signalled by the falling tone and the increase of loudness on the word "born".

Sometimes there may be a double contrast in the phrase, each contrast indicated by its own nucleus:

Her \mother | is ˅Russian | but her ˅father | is \German.

In a marked position, the nuclei may be on any word in an intonation group or a phrase. Even words like personal pronouns, prepositions and auxiliaries, which are not normally stressed at all, can receive nuclear stress for special contrastive purposes:

It's not ˌher book, | it's ˌours.

Which syllable of the word is stressed if it has more than one syllable, is determined by ordinary conventions of word stress: *to'morrow, 'picture, ˌdemons'tration.*

In exceptional cases, contrastive stress in a word of more than one syllable may shift to a syllable which does not normally have word stress. For example, if you want to make a contrast between the two words normally pronounced *bu'reaucracy* and *au'tocracy* you may do so as follows: *'bureaucracy* and *'autocracy.*

The widening of the range of pitch of the nucleus, the increase of the degree of loudness of the syllable, the slowing down of the tempo make sentence accent **emphatic**:

A. →Tom has ˈpassed his exam.
B. Well ˈfancy ˈthat!

We can roughly divide the information in a message into **given**, or **retrievable information** (or the theme) and **new information** (or the rheme). Given information is something which the speaker assumes the hearer knows about already. New information can be regarded as something which the speaker does not assume the hearer knows about already. Here is an example;

A. What did John say to you?
B. He was →talking to ˌMary | not to ˌme.

In the response "He was talking" is given information; it is already given by the preceding clause; "not to me" conveys new information. A new information is obviously what is most important in a message, it receives the information focus, in the nucleus, whereas old information does not.

Given information suggests information which has already been mentioned or alluded to. But this notion may be extended by including information which is given by the situation outside language. For example, if a few different persons are expected to come, the phrase "The doctor has come" is pronounced with the nucleus on the word "doctor" though no speech context preceded it.

By putting the stress on one particular word, the speaker shows, first, that he is treating that word as the carrier of new, non-retrievable information, and, second, that the information of the other, non-emphasized, words in the intonation group is not new but can be retrieved from the context. "Context" here is to

be taken in a very broad sense: it may include something that has already been said, in which case the antecedents may be very specific, but it may include only something (or someone) present in the situation, and it may even refer, very vaguely, to some aspect of shared knowledge which the addressee is thought to be aware of. The information that the listener needs in order to interpret the sentence may therefore be retrievable either from something already mentioned, or from the general "context of situation":

Notice that the decision as to whether some information is retrievable or not has to be made by the speaker on the basis of what he thinks the addressee can take for granted from the situation, etc., The speaker must, in framing the utterance, make many assumptions, and he does this rapidly and to a large degree unconsciously. He then arranges his intonation groups and assigns nuclear stresses accordingly. But in any particular situation, the speaker's assumptions run the risk of being wrong; what he takes to be retrievable information may not in fact be retrievable for the addressee. In this case there is a breakdown of communication, and the listener will probably seek clarification:

(*A*. and *B*. are passing the tennis courts)
A. There *isn't* anyone playing.
B. Who said there *was*?
A. Nobody.

Dialogues like this, though not uncommon, are unsatisfactory because vital information is missing. By putting the nucleus on "isn't" speaker *A* took "anyone playing" as retrievable information. *B* responds with a request for an explanation, which *A* then fails to fulfil. If *A* had put the original nucleus on "playing", the conversation could have proceeded normally.

Degrees of information are relevant not only to the position of sentence stress but also to the choice of the nuclear tone. We tend to use a falling tone of wide range of pitch combined with a greater degree of loudness, that is emphatic stress, to give emphasis to the main information in a phrase. To give subsidiary or less important information, i.e. information which is more predictable from the context or situation, the rising or level nuclear tone is used, e.g.

A. I saw your sister at the game yesterday.
main subsidiary

B. Yes, watching tennis is her favourite pastime.
subsidiary main

The English language is not only a means of giving and receiving information. As was stated above, it is more than this: it is communication between people. It commonly expresses the attitudes and emotions of the speaker and he often uses it to influence the attitudes and behaviour of the hearer. This function of intonation makes it "the salt of an utterance. Without it a statement can often be understood, but the message is tasteless, colourless. Incorrect uses of it can lead to embarrassing ambiguities" (55).

So another use of intonation in English is that of transmitting **feelings** or **emotions** and **modality**. But it is fair to note here that language has to be conventional, it has more important business than transmitting feelings, and this forces it to harness emotion in the service of meaning.

As with words which may have two or more related lexical meanings so with intonation patterns one must indicate a central meaning with marginal variations from it. In English meanings of intonation patterns are largely of this general type. Most phrases and parts of them may be pronounced with several different intonation patterns according to the situation, according to the speaker's momentary feeling or attitude to the subject matter. These modifications can vary from surprise to deliberation, to sharp isolation of some part of a sentence for attention, to mild intellectual detachment. It would not be wise to associate a particular intonation pattern with a particular grammatical construction. Any sentence in various contexts may receive any of a dozen other patterns, cf.:

When can you do it? — ˌNow. (detached, reserved)
When did you finish? — ˈNow. (involved)
When did you come? — ˌNow. (encouraging further conversation)
You are to do it right now. — ˇNow? (greatly astonished)

We have so far confined our description to the significance of intonation within phrases; we now want to discuss the function of intonation with reference to the **model of discourse structure**, i.e. to handle the way in which functional units combine together.

In recent years some promising attempts have been made to describe intonation with reference to structures of discourse, rather than to grammatical categories. By discourse is meant a sequence of utterances, usually involving exchanges between two or more participants, though monologue is not excluded from this definition.

Probably the most important **grammatical function** of intonation in the language family to which English belongs is that of tying the major parts together within the phrase and tying phrases together within the text — showing, in the process, what things belong more closely together than others, where the divisions come, what is subordinate to what, and whether one is telling, asking, commanding or exclaiming.

In other words, in previous sections we have considered aspects of meaning in isolation, but now we shall be thinking about how meanings may be put together and presented in an oral discourse. We shall start with the organization of connections between phrases, with considering how one idea leads on from another. Intonation is one of the means that fulfil this **connection** or **integrating function**.

A phrase usually occurs among other phrases; it is, in fact, usually connected to them in some way. A phrase is most closely connected to its context phrases, which is often the one just preceding it. It is useful to say that a phrase is a response to its context and is relevant to that context. These notions can be illustrated with the following two-line dialogue:

A. Where is John?
B. He is in the house.

In this dialogue phrase *A* is the context for phrase *B*. Conversely, *B* is a response to *A* and is relevant to *A*. This particular relevance may be called "answer to a special question". Relevance is the phenomenon that permits humans to converse. It is clear that if we treat a phrase like *B* in isolation, with their contexts shipped away, relevance evaporates. That fact alone is a powerful argument for the propriety of dealing with phrases in context, for without context there is no relevance. But an even more powerful argument is this: a context phrase acts as a floodlight upon the response, revealing details about the response, and clarifying its structure and meaning. If we remove a phrase from its context we shut off that light. The very facts that we are

trying to understand may be obscured. Some illustrations will show what is meant.

If we take an utterance like "John" we cannot discern much about its structure or meaning. But the moment we make it relevant to a context, the structure and meaning leap into focus, as in the following:

Who is in the house?
John.

Instantly the observer sees that the response is elliptical and that it has the underlying structure "John is in the house". It is the context that allows this interpretation. But the very same phonetic sequence "John", if taken in a different context, is revealed to have a completely different structure and meaning, as in the following:

Who did they see?
John.

The full form of the response is "They saw John", a phrase in which the sequence "John" is now the object. Thus two examples of the utterance "John" appear to be identical if taken in isolation, but different contexts allow us to see them as fundamentally different.

One and the same word sequence may be pronounced with different intonation being relevant to different contexts, e.g.

A. Did →John ˌphone you yesterday?	→Did ˌJohn phone you yesterday?
B. ˌNo, Tom.	ˌNo, { ˌTom.

Not only the use of particular pitch changes is an important means of tying intonation groups or phrases together.

Accents and particular positions of accents seem to be characteristic of the phrase or of the text structure. We tend to favour the two extremes of the phrase, the beginning and the end, or, in longer phrases, the two extremes in an intonation group as if to announce the beginning and the end. There may be intermediate accents, but they are less prominent:

The →snow °generally °comes in Noˌvember.

Here the first strong accent is on "snow" and the last is on "November".

Similarly there is a tendency to arrange complete parts of the text when the opening and the closing phonetic passages are more prominent than the intermediate ones thus integrating parts into a whole text, e.g.

A gentleman was much surprised when a good-looking young lady greeted him by saying "Good evening". He couldn't remember ever seeing her before.

She evidently realized that she had made a mistake, for she apologized, and explained: "Oh, I am sorry. When I first saw you I thought you were the father of my two children." She walked on while the man stared after her. She didn't realize, of course, that he was unaware of the fact that she was a school teacher.

The pitch range, the degree of loudness of the first and the last phonetic passages are comparatively higher and the tempo is definitely slower as compared to the second phonetic whole. These are just some examples of how intonation is involved in the text-structuring process which forms a good evidence of its integrating ability.

Many linguists in this country and abroad attempt to view intonation on the **phonological level**. Phonology has a special branch, **intonology**, whose domain is the larger units of connected speech: intonation groups, phrases and even phonetic passages or blocks of discourse.

It is still impossible to classify, in any practical analysis of intonation, all the fine shades of feeling and attitude which can be conveyed by slight changes in pitch, by lengthening or shortening tones, by increasing or decreasing the loudness of the voice, by changing its quality, and in various other ways. On the other hand it is quite possible to make a broad classification of intonation patterns which are so different in their nature that they materially change the meaning of the utterance to which they are applied, and to make different pitches and degrees of loudness in each of them. Such an analysis resembles the phonetic analysis of sounds of a language whereby phoneticians establish the number of significant sounds it uses. Applied to intonation it can be of the greatest service in guiding students in the correct use of the tones and accents they are learning.

The **distinctive function** of intonation is realized in the opposition of the same word sequences which differ in certain parameters of the intonation pattern.

Intonation patterns make their distinctive contribution at intonation group, phrase and text levels. Thus in the phrases:

If ˌMary ˌcomes { let me →know at ˌonce. (a few people are expected to come but it is Mary who interests the speaker)	If →Mary ˌcomes { let me →know at ˌonce. (no one else but Mary is expected to come)

the intonation patterns of the first intonation groups are opposed.

In the opposition "I enˌjoyed it" — "I enˌjoyed ˌit" the pitch pattern operates over the whole phrase adding in the second phrase the notion that the speaker has reservations (implying a continuation something like "but it could have been a lot better").

In the dialogue segments which represent text units

A. You must a→pologize at ˌonce.	You must aˈpologize at once.
B. I ˌdon't 'see why I ˈshould.	I →don't ˌsee why I ˌshould.

the opposition of intonation patterns of both the stimulus and the response manifests different meaning.

Any section of the intonation pattern, any of its three constituents can perform the distinctive function thus being **phonological units**. These units form a complex system of **intonemes, tonemes, accentemes, chronemes,** etc. These phonological units like phonemes consist of a number of variants. The terminal tonemes, for instance, consist of a number of **allotones**, which are mutually non-distinctive. The **principal allotone** is realized in the nucleus alone. The **subsidiary allotones** are realized not only in the nucleus, but also in the pre-head and in the tail, if there are any, cf.:

ˌNo. ˌNo, Tom. Oh, ˌno, Mary.

The most powerful phonological unit is the terminal tone. The opposition of terminal tones distinguishes different types of sentence. The same sequence of words may be interpreted as a **different syntactical type**, i.e. a statement or a question, a question or an exclamation being pronounced with different terminal tones, e.g.

ˌTom saw it. (statement)	ˌTom saw it? (general question)
→Didn't you enˌjoy it? (general question)	→Didn't you enˌjoy it? (exclamation)

Will you be ˌquiet? (request)

Will you be ˏquiet? (command)

The **number of terminal tones** indicates the **number of intonation groups**. Sometimes the number of intonation groups we choose to use may be important for meaning. For example, the sentence "My sister, who lives in the South, has just arrived" may mean two different things. In writing the difference may be marked by punctuation. In oral speech it is marked by using two or three intonation groups. If the meaning is: "My only sister who happens to live in the South...", then the division would be into three intonation groups: "My sister, ‖ who lives in the South, ‖ has just arrived."

On the other hand, if the meaning is: "That one of my two sisters, who lives in the South", the division is into two intonation groups.

Other examples:

I didn't see the doctor | because I was ill (and could not go).

I didn't see the doctor because I was ill (but for some other reason for example, to get my health card signed).

Thus, in one meaning the doctor was not seen, and in the other, he was.

Together with the increase of loudness terminal tones serve to single out the **semantic centre**[1] of the utterance. The words in an utterance do not necessarily all contribute an equal amount of information, some are more important to the meaning than others. This largely depends on the context or situation in which the intonation group or a phrase is said. Some words are predisposed by their function in the language to be stressed. In English, as you know, lexical (content) words are generally accented while grammatical (form) words are more likely to be unaccented although words belonging to both of these groups may be unaccented or accented if the meaning requires it.

Let us consider the sentence "It was an unusually rainy day." As the beginning of, say, a story told on the radio the last three words would be particularly important, they form the semantic

[1] By "semantic centre" we mean the information centre which may simultaneously concentrate the expression of attitudes and feelings.

centre with the nucleus on the word "day". The first three words play a minor part. The listener would get a pretty clear picture of the story's setting if the first three words were not heard because of some outside noise and the last three were heard clearly. If the last three words which form the semantic centre were lost there would be virtually no information gained at all.

The same sentences may be said in response to the question "What sort of day was it?" In this case the word "day" in the reply would lose some of its force because the questioner already possesses the information that it might otherwise have given him. In this situation there are only two important words — "unusually rainy" — and they would be sufficient as a complete answer to the question. The nucleus will be on the word "rainy". Going further still, in reply to the question "Did it rain yesterday?" the single word "unusually" would bear the major part of the information, would be, in this sense, more important than all the others and consequently would be the nucleus of the intonation pattern.

Grammatical words may be also important to the meaning if the context makes them so. The word "was", for instance, has had little value in the previous examples, but if the sentences were said as a contradiction in the reply to "It wasn't" a rainy day yesterday, was it?", then "was" would be the most important word of all and indeed, the reply might simply be "It was", omitting the following words as no longer worth saying. In this phrase the word "was" is the nucleus of the semantic centre.

These variations of the accentuation achieved by shifting the position of the terminal tone serve a striking example of how the opposition of the distribution of terminal tones is fulfilling the distinctive function.

There are exceptional cases when the opposition of terminal tones serves to differentiate the actual meaning of the sentence.

If the phrase "I don't want you to read anything" has the low-falling terminal tone on the word "anything", it means that for this or other reason the person should avoid reading. If the same word sequence is pronounced with the falling-rising tone on the same word, the phrase means that the person must have a careful choice in reading; or:

He's a → French ↘teacher.	He's a ↘French teacher.
(He comes from France.)	(He teaches French.)

It should be pointed out here that the most important role of the opposition of terminal tones is that of differentiating the **attitudes** and **emotions** expressed by the speaker. The speaker must be particularly careful about the attitudes and emotions he expresses since the hearer is frequently more interested in the speaker's attitude or feeling than in his words — that is whether he speaks nicely or nastily.

The special question "Why?", for instance, may be pronounced with the low-falling tone sounding rather detached, sometimes even hostile. When pronounced with the low-rising tone it is sympathetic, friendly, interested.

Another example. The sentence "Yes" as a response to the stimulus "Did you agree with him?" pronounced with the low-falling tone sounds categoric, cool, detached. Being pronounced with the falling-rising tone it implies quite a special shade of emotional meaning "up to the point", sounding concerned, hurt, tentatively suggesting.

All the other sections of the intonation pattern differentiate only **attitudinal** or **emotional** meaning, e.g.: being pronounced with the high pre-head, "Hello" sounds more friendly than when pronounced with the low pre-head, cf.:

ˉHel,lo! – Hel,lo!

More commonly, however, different kinds of pre-heads, heads, the same as pitch ranges and levels fulfil their distinctive function not alone but in the combination with other prosodic constituents.

We have been concerned with the relationship between intonation, grammatical patterns and lexical composition. Usually the speaker's intonation is in balance with the words and structures he chooses. If he says something nice, his intonation usually reflects the same characteristic. All types of questions, for instance, express a certain amount of interest which is generally expressed in their grammatical structure and a special interrogative intonation. However, there are cases when intonation is in contradiction with the syntactic structure and the lexical content of the utterance **neutralizing** and **compensating** them, e.g.: a statement may sound questioning, interested. In this case intonation neutralizes its grammatical structure. It compensates the grammatical means of expressing this kind of meaning:

Do you know what I'm here for? — ,No. (questioning)

There are cases when intonation neutralizes or compensates the lexical content of the utterance as it happens, for instance, in the command "→Phone him at ˌonce, please", when the meaning of the word "please" is neutralized by intonation.

Lack of balance between intonation and word content, or intonation and the grammatical structure of the utterance may serve special speech effects. A highly forceful or exciting statement said with a very matter-of-fact intonation may, by its lack of balance, produce a type of irony; if one says something very complimentary, but with an intonation of contempt, the result is an insult.

There are cases when groups of intonation patterns may be treated as **synonyms**. It happens when fine shades of meaning in different situations modify the basic meaning they express, e.g.: the basic meaning of any falling tone in statements is finality. Low Fall and High Fall both expressing finality have their own particular semantic shades. Low Fall is used in final, categoric detached statements. High Fall together with finality may express concern, involvement:

Where's my copy? – ˌPeter took it for you.
or: – ˈPeter took it for you.
Isn't it a lovely view? – De ˌlightful.
or: – De ˈlightful.

Russian permits intonational patterns of a type not found in English. It offers many examples of quite specific constituents that is of the pre-nuclear and the nuclear parts. Intonation patterns in Russian are usually called "Intonation constructions" (**интонационные конструкции** abbreviated as "ИК"). There are five main intonation constructions and two occasional ones (i.e. emphatic variants). They are differentiated according to the type of the nucleus, the pitch direction on the pre-nuclear and post-nuclear syllables, the character of the word stress and the length, tenseness and quality of the stressed vowel in syllables bearing the nuclear tone.

The intonation constructions in the Russian language are associated with certain sentence types and the attitudinal meaning expressed by them is termed by the purpose of communication. We might state that the difference between English and Russian intonation lies both in structure and use.

Our next section will be concerned with rhythmic structures of English which are formed by means of all prosodic components described in this section.

RHYTHM

Now we shall focus our attention on English rhythm. We cannot fully describe English intonation without reference to speech rhythm. Prosodic components (pitch, loudness, tempo) and speech rhythm work interdependently. Rhythm seems to be a kind of framework of speech organization. Linguists sometimes consider rhythm as one of the components of intonation. D.Crystal, for instance, views rhythmicality as one of the constituents of prosodic systems (50).

We would like to start by declaring rhythm to be a very general term. It is understood as periodicity in time and space. We find it everywhere in life. The work of all kinds of machinery is said to be rhythmical. In nature rhythm is observed in the successions of seasons, days and nights, the changes of the moon phases, high and low tide. The most evident illustration of rhythm in the physiology of living beings, is the heart beating and breathing. Most of human activities appear to be rhythmical — swimming, running, skiing, knitting and other muscular movements. We very well feel and appreciate the artistic rhythm in music, dance and other fields of art.

Rhythm as a linguistic notion is realized in lexical, syntactical and prosodic means and mostly in their combinations. For instance, such figures of speech as sound or word repetition, syntactical parallelism, intensification and others are perceived as rhythmical on the lexical, syntactical and prosodic levels, e.g.

"But the winter has chilled my veins, and the frost has nipped my buds, and the storm has broken my branches, and I shall have no roses at all this year" (*O. Wilde*).

Here the syntactical parallelism of the homogeneous clauses is correlated with the identical prosodic contour of the intonation groups in the phrase and is strengthened by the repetition of the conjunction "and", a stylistic device known as polysyndeton.

In this section we shall actually deal with the prosodic aspect of rhythm. Speech production is naturally closely connected

with the process of breathing. So speech activity as well as any other human activity is conditioned by physiological factors among others and is characterized by rhythm. From the materialistic point of view rhythm is one of the means of matter organization. The rhythmical arrangement of different phenomena of objective reality is presented in the form of periodicity, or tendency towards proportion and symmetry.

In speech, the type of rhythm depends on the language. Linguists divide languages into two groups: syllable-timed like French, Spanish and other Romance languages and stress-timed languages, such as Germanic languages English and German, as well as Russian. In a syllable-timed language the speaker gives an approximately equal amount of time to each syllable, whether the syllable is stressed or unstressed and this produces the effect of even rather staccato rhythm.

In a stress-timed language, of which English is a good example, the rhythm is based on a larger unit than syllable. Though the amount of time given on each syllable varies considerably, the total time of uttering each rhythmic unit is practically unchanged. The stressed syllables of a rhythmic unit form peaks of prominence. They tend to be pronounced at regular intervals no matter how many unstressed syllables are located between every two stressed ones. Thus the distribution of time within the rhythmic unit is unequal. The regularity is provided by the strong "beats".

We should like to mention here that speech rhythm has the immediate influence on vowel reduction and elision. Form words such as prepositions, conjunctions as well as auxiliary and modal verbs, personal and possessive pronouns are usually unstressed and pronounced in their weak forms with reduced or even elided vowels to secure equal intervals between the stressed syllables, e.g.

Come and 'see me to\morrow.

None of them ~was 'any \good.

The markedly regular stress-timed pulses of speech seem to create the strict, abrupt and spiky effect of English rhythm. Russian rhythm is perceived as more flexible, liquid and smooth. As you probably remember the English language is an analytical one. This factor explains the presence of a considerable number of monosyllabic form words which are normally unstressed in a

stretch of English speech. To bring the meaning of the utterance to the listener the stressed syllables of the notional words are given more prominence by the speaker and the unstressed monosyllabic form words are left very weak. It is often reflected in the spelling norm in the conversational style, e.g.

I'm sure you mustn't refuse him.

In teaching practice it is essential not only to stress the notional words properly but also to leave conjunctions, prepositions, auxiliary and modal verbs, personal and possessive pronouns reduced or elided.

Speech rhythm is traditionally defined as recurrence of stressed syllables at more or less equal intervals of time in a speech continuum. We also find a more detailed definition of speech rhythm as the regular alternation of acceleration and slowing down, of relaxation and intensification, of length and brevity, of similar and dissimilar elements within a speech event.

It has long been believed that the basic rhythmic unit is a rhythmic group, a speech segment which contains a stressed syllable with preceding or/and following unstressed syllables attached to it. The stressed syllable is the prosodic nucleus of the rhythmic group. The initial unstressed syllables preceding the nucleus are called **proclitics**, those following the nucleus are called **enclitics**. In qualifying the unstressed syllables located between the stressed ones there are two main alternative views among the phoneticians. According to the so-called semantic viewpoint the unstressed syllables tend to be drawn towards the stressed syllable of the same word or to the lexical unit according to their semantic connection, concord with other words, e.g.

Negro Harlem | became | the largest | colony | of coloured people.

According to the other viewpoint the unstressed syllables in between the stressed ones tend to join the preceding stressed syllable. It is the so-called enclitic tendency. Then the above-mentioned phrase will be divided into rhythmical groups as follows, e.g.

Negro Harlem | became the | largest | colony of | coloured people.

It seems that the enclitic tendency is more typical of the English language, though in the speech flow it is sometimes difficult to define the borders of rhythmic groups. So the division into rhythmic groups is no easy matter. The rhythm-unit break is of-

ten indeterminate. It may well be said that the speech tempo and style often regulate the division into rhythmic groups. The enclitic tendency is more typical for informal speech whereas the semantic tendency prevails in accurate, more explicit speech.

The more organized the speech is the more rhythmical it appears, poetry being the most extreme example of this. Prose read aloud or delivered in the form of a lecture is more rhythmic than colloquial speech. On the other hand rhythm is also individual — a fluent speaker may sound more rhythmical than a person searching for the right word and refining the structure of his phrase while actually pronouncing it.

However, it is fair to mention here that regularity in a speech chain is not realized in its exact isochronous form. Absolutely regular speech produces the effect of monotony. It means that the intervals between the stressed syllables are not physically equal. Some "strokes" may often be missing or mistimed. I.Lehiste claims that isochrony is largely a perceptual phenomenon (67). Whenever short rhythmic groups are mixed with longer ones the speaker minimizes the differences by means of changes in his rate of delivery. Any number of unstressed syllables occurring between the stressed ones are actually compressed to allow the next stressed syllable to come on the regular beat. Now the listener tends to equalize the groups he perceives. In other words the length of the intervals is perceived by the listener as equal despite the changing number of unstressed syllables between the peaks of the rhythmic groups, e.g.

Speech is nothing more | than a series of rough hints | which the hearer must interpret | in order to arrive at the meaning which the speaker wishes to convey (*H. Palmer*).

Learners of English should be recommended to beat the rhythm while reading sentences of this kind.

The most frequent type of a rhythmic group includes 2-4 syllables, one of them stressed, others unstressed. In phonetic literature we find a great variety of terms defining the basic rhythmic unit, such as an accentual group or a stress group which is a speech segment including a stressed syllable with or without unstressed syllables attached to it; a pause group — a group of words between two pauses, or breath group — which can be uttered within a single breath. As you have probably noticed, the criteria for the definition of these units are limited by physiologi-

cal factors. The term "rhythmic group" used by most of the linguists (see 67, 57, 2) implies more than a stressed group or breath group. I.V.Zlatoustova (18) terms it "rhythmic structure". Most rhythmic groups are simultaneously sense units. A rhythmic group may comprise a whole phrase, like "I can't do it" or just one word: "Unfortunately..." or even a one-syllable word: "Well..."; "Now...". So a syllable is sometimes taken for a minimal rhythmic unit when it comes into play. Indeed the rhythmic tendency of accentuation in polysyllabic words helps to secure periodicity of dynamic peaks in an utterance. K.Pike finds the term "waves" for rhythm periodicity to be very expressive (72).

Now we must admit that the traditional understanding of rhythm as a regularity of recurrence of stressed syllables was sufficient enough until the main object of linguistic investigations was a written sentence or a phrase in oral discourse. The investigation of the spoken text as a linguistic unit has contributed a lot to the treatment of rhythm since the text as a whole grew the object of analysts' attention. In the present-day linguistics rhythm is analysed as a system of similar adequate elements. A.M.Antipova (2) defines rhythm as a complex language system which is formed by the interrelation of lexical, syntactic and prosodic means. Prosody creates similarity and isochrony of speech elements. In view of what has just been said it would be perfectly natural to admit that the sphere of rhythm functioning is actually very wide. Rhythmicality marks every text segment: rhythmic groups, intonation groups, phrases and phonopassages. The recurrence of similar and commensurate text segments makes them rhythmic units. The rhythmic effect of the text units is obtained by the prosodic parameters, the pitch of the voice, loudness, duration. In fact not only the actual pitch of the voice but its level and range, pausation and other phenomena of a stretch of speech form rhythm constituents. The detailed prosodic analysis of the oral text which is termed by O.S.Akhmanova "frasirovka" reveals its rhythmicality. Combinations of the markers are more frequent and effective. In her fundamental work based on the instrumental analysis of English speech A.M.Antipova comes to the conclusion that the rhythmic structure of speech continuum is a hierarchy of rhythmical units of different levels. Each text unit is capable of fulfilling the rhythmic function. It is worth mentioning that the notion of prosodic similarity is very flexible. The rhythm constituents vary not only in different

rhythm units but also in different speech realizations, different linguistic activities.

We undoubtedly observe the most striking rhythmicality in **poetry**. You may have found from reading poetry in your own language that you can often enjoy a poem without fully understanding its meaning. It is possible to pay more attention to the way a poet says something rather than to what he actually has to say. Enjoyment, however, must not be confused with appreciation. It is one thing to gain pleasure from a poem and quite another to be able to say why you liked it. It is hard to define exactly why it gives us pleasure. However, the subject matter of a poem is not necessarily the most important thing about it. Any poem sets out to convey a great deal more than an idea and it is this that distinguishes it from prose. The most common types of poetry are: descriptive, reflective, narrative, the lyric and the sonnet. The ability to distinguish between them helps to understand more readily what a poet's intentions are. To demonstrate the types of verse we have chosen the blocks of poetry which illustrate the stylistic devices discussed further on.

Descriptive are poems which describe people or experiences, scenes or objects.

Lucy

She dwelt among the untrodden ways
Beside the springs of Dove,
A maid whom there were none to praise
And very few to love:
A violet by a mossy stone
Half hidden from the eye!
— Fair as a star, when only one
Is shining in the sky. (*W. Wordsworth*)

Reflective are thoughtful poems often containing a great deal of description which the poet comments on or from which he draws conclusions. Sometimes these conclusions are directly stated, at other times implied.

Mild the Mists Upon the Hill

Mild the mists upon the hill,
Telling not of storms tomorrow;
No; the day has wept its fill,
Spent its store in silent sorrow.
Oh, I'm gone back to the days of youth,
I am a child once more,
And 'neath my father's sheltering roof,
And near the old hall door. (*E. Brontë*)

Narrative are poems which tell a story. They tend to be longer than other types of poetry but it is comparatively easy to recognize the poet's intention.

The Ancient Mariner

The fair bre-eze blew, the white foam flew,
The furrow followed free;
We were the first that ever burst
Into that silent sea.
Down dropt the breeze, the sails dropt down,
'Twas sad as sad could be;
And we did speak only to break
The silence of the sea!... (*S. Coleridge*)

The Raven

...Deep into that darkness peering, long I stood
there wondering, fearing,
Doubting, dreaming dreams no mortal
ever dared to dream before;
But the silence was unbroken, and the darkness
gave no token,
And the only word there spoken was the whispered
word "Lenore"!
This I whispered and an echo murmured back
the word "Lenore".
Merely this; and nothing more.... (*Edgar Allan Poe*)

By the Lyric we usually mean a short poem like a song which is usually the expression of a mood or feeling.

To

— Music, when soft voices die,
Vibrates in the memory —
Odours, when sweet violets sicken,
Live within the sense they quicken.
Rose leaves, when the rose is dead,
Are heaped for the beloved's bed;
And so thy thoughts, when thou art gone,
Love itself shall slumber on. (*P.B. Shelley*)

A Sonnet is a poem of fourteen lines which follows a very strict rhythm pattern. Sonnets tend to be difficult because a great deal of meaning is often conveyed in a few lines.

On the Grasshopper and Cricket

The poetry of earth is never dead
When all the birds are faint with the hot sun,
And hide in cooling trees, a voice will run
From hedge to hedge about the new-mown mead;
That is the grasshopper's — he takes the lead
In summer luxury — he has never done
With his delights; for when tired out with fun
He rests at ease beneath some pleasant weed.
The poetry of earth is ceasing never:
On a lone winter evening, when the frost
Has wrought a silence, from the stove there shrills
The cricket's song, in warmth increasing ever,
And seems to one in drowsiness half-lost,
The grasshopper's among some grassy hills. (*J. Keats*)

In verse the similarity of rhythmical units is certainly strengthened by the metre, which is some strict number and sequence of stressed and unstressed syllables in a line. Strict alternation of stressed and unstressed syllables in metric versification allows us to regard a syllable as the minimal rhythmic unit in metric verse. Then again comes a rhythmic group, an intonation group, a line, a stanza. They all form the hierarchy of rhythmic units in poetry. English verse is marked by a descending bow-shaped melody contour, decentralized stress organization. The

strict recurrence of such intonation patterns secures a stable periodicity in verse rhythm. The basic rhythm unit in verse, however, is a line. On the prosodic level the rhythm in a line is secured by the similar number of syllables, their temporal similarity, descending melody contour, tone and intensity maximum at the beginning, tone and intensity minimum at the end and the final pause. These parameters make the line a stable rhythmic unit.

It should be claimed here that the great effect produced on us by poetic rhythm is not created by the prosody alone. The delight we get when reading poetry often comes from its musical qualities, or from the striking way a poet uses words. But this can only be a partial explanation, for poetry does not follow hard and fast rules; every poem is unique and has special qualities of its own as you could make sure yourself. Some of these, however, are properties common to all poetry. They are structural, semantic and sound devices which help the poet to fulfil his intentions and strengthen the prosodic means of rhythmicality. As we have already mentioned in the analysis of the stylistic devices that follows the examples have been drawn from the poems illustrating the types of poetry given above.

We shall naturally start with the **phonetic devices** to see how they help the impression of rhythmicality. They add considerably to the musical quality a poem has when it is read aloud.

1. First and foremost among the sound devices is **the rhyme** at line endings. Most skilful rhyming is sometimes presented by internal rhyme with two rhyming words within a single line, e.g.

> The fair breeze *blew*, the white foam *flew*,
> The furrow followed *free*;
> We were the *first* that ever *burst*
> Into that silent *sea*. (*S. Coleridge*. The Ancient Mariner)

Edgar Poe also uses internal rhyming in the poem "The Raven" in every first and third line of each stanza: *peering — fearing; unbroken — no token; shutter — flutter; make he — stayed he.*

2. **Assonance** occurs when a poet introduces imperfect rhymes often employed deliberately to avoid the jingling sound of a too insistent rhyme pattern, e.g. "stone" is made to rhyme with "one" by W.Wordsworth in "Lucy"; "youth" is rhymed with "roof" by E.Brontë in "Mild the Mists Upon the Hill".

In this way the rhymes do not fall into a sing-song pattern and the lines flow easily.

3. **Alliteration** is the repetition of the same sound at frequent intervals, e.g.

The fair breeze blew, the white foam flew,
The furrow followed free. (*S. Coleridge*. The Ancient Mariner)

The repeated "b's" and "f's" here make the lines run quickly and give the impression of a ship travelling at high speed.

Or:

Open here I flung the shutter and with
many a flirt and flutter...

The same impression of quickness is created by the repetition of the "f" sound.

Also:

Deep into that darkness peering, long I stood
there wondering, fearing,
Doubting, dreaming dreams no mortal ever
dared to dream before. (*E. Poe*. The Raven)

The repetition of the "d" sound suggests both monotony and immobility.

4. **Sound symbolism** (imitation of the sounds of animals) makes the description very vivid. An example of sound symbolism is found in Shakespeare's verse "Winter", e.g.

Then nightly sings the staring owl,
Tu-who
Tu-whit, to-who — a merry note...

Structural or syntactical stylistic devices indicate the way the whole poem has been built, thus helping the rhythm to fulfil its constitutive function.

1. **Repetition.** Poets often repeat single lines or words at intervals to emphasize a particular idea. Repetition is to be found in poetry which is aiming at special musical effects or when a poet wants us to pay very close attention to something, e.g.

Water, water, everywhere,
And all the boards did shrink;
Water, water, everywhere
Nor any drop to drink. (*S. Coleridge*. The Ancient Mariner)

Also the repetition of the last words of each stanza in the poem "The Raven" by E. Poe.

2. **Syntactical parallelism** helps to increase rhythmicality, e.g.

...Perched above my chamber door
Perched upon a bust of Pallas. (*E. Poe*. The Raven)

Or:

The poetry of earth is never dead...
...The poetry of earth is ceasing never...
(*J. Keats*. On the Grasshopper and Cricket)

3. **Inversion**, the unusual word order specially chosen to emphasize the logical centre of the phrase, e.g.

Down dropt the breeze, the sails dropt down.
(*S. Coleridge*. The Ancient Mariner)

Or:

Open here I flung the shutter...
Not the least obeisance made he
Not an instant stopped or stayed he.
(*E. Poe*. The Raven)

4. **Polysyndeton** is a syntactical stylistic device which actually stimulates rhythmicality of a poem by the repetition of phrases or intonation groups beginning with the same conjunctions "and" or "or", e.g.

When icicles hang by the wall,
And Dick the shepherd blows his nail,
And Tom bears logs into the hall,
And milk comes frozen home in pail,
When blood is nipp'd, and ways be foul...
(*W. Shakespeare*. Winter)

Semantic stylistic devices impart high artistic and aesthetic value to any work of art including poetry.

1. **Simile** is a direct comparison which can be recognized by the use of the words, "like" and "as". The most striking example of simile is found in the lines:

Day after day, day after day,
We stuck; nor breath nor motion;
As idle as a painted ship
Upon a painted ocean.

By relating the real ship to a painted one S.Coleridge enables us to imagine just how still the ship was.

In the poem "Lucy" W.Wordsworth compares the girl to a star:

> Fair as a star, when only one
> Is shining in the sky.

2. **Metaphor** is a stylistic figure of speech which is rather like simile, except that the comparison is not direct but implied and that makes the effect more striking.

In the poem "Lucy" W.Wordsworth does not say that the girl was like a violet. He writes:

> A violet by a mossy stone
> Half hidden from the eye.

Lucy in these lines is a violet. The metaphor vividly represents a girl of rare beauty who lived unknown. In his sonnet "On the Grasshopper and Cricket" J.Keats uses the words "poetry" and "luxury" metaphorically:

> The poetry of earth is never dead...
> That is the grasshopper's — he takes the lead
> In summer luxury.

3. **Intensification** is a special choice of words to show the increase of feelings, emotions or actions, e.g.

> Deep into that darkness peering, long I stood there
> wondering, fearing,
> Doubting, dreaming dreams no mortal ever dared
> to dream before... (*E. Poe.* The Raven)

4. **Personification** occurs when inanimate objects are given a human form or human feelings or actions, e.g.

> ...the day has wept its fill...
> (*E. Brontë.* The Mild Mists Upon the Hills)

> ...the rose is dead; ...soft voices die;
> Love itself shall slumber on. (*P. Shelley.* To —)

> ...and an echo murmured back the word "Lenore"!
> (*E Poe.* The Raven)

We do not aim at analysing all the numerous stylistic devices known in poetry but tried to demonstrate the effect of rhythm created by the surprising unity of the semantic, syntactic and phonetic means. Summarizing we can say that poetic rhythm is a complex system with the hierarchical organization of its units arranged by prosody as well as lexical and syntactical means.

Our further point should concern **prose**. We would like to start with a fairy-tale which is nearest to poetry and could be considered an intermediate stage between poetry and prose as it is famous for its obvious rhythmicality and poetic beauty, e.g.

Once upon a time, a very long time ago, there lived an Emperor who loved to wear new clothes. Every spare wardrobe in his palace was packed from ceiling to floor with gorgeous waistcoats, tunics, and capes (The Emperor's New Clothes).

A fairy-tale has a specific manner of oral presentation, different from any other sort of text. The reading of a fairy-tale produces a very strong impression on the listener. The prosodic organization of a fairy-tale creates the effect of euphony which implies sound harmony, melodiousness, measured steps of epic character of phonation. The most functional features of euphony are rhythmicality and the melody component of intonation.

The rhythm of a fairy-tale is created by the alternations of commensurate tone, loudness and tempo characteristics of intonation (70). Intonation groups are marked by similarity of tone contour and tempo in the head and the nuclear tone. Rhythmicality is often traced in alternations of greater and smaller syllable durations.

The fairy-tale narration is marked by the descending or level tone contour in the head of intonation groups and specific compound nuclear tones: level-falling, level-rising, falling-level, rising-level. The level segment of nuclear tones adds to the effect of slowing down the fairy-tale narration and its melodiousness.

We would like to mention right here that the reading or reciting of a fairy-tale is not utterly monotonous. Alongside with the even measured flow of fairy-tale narration we find contrastive data in prosodic parameters which help to create vivid images of fairy-tale characters and their actions. For example, with respect to medium parameters high/low pitch level is predominant in describing the size of a fairy-tale character (*huge bear — little bear*); fast/slow tempo strengthens the effect of fast or slow

movements and other actions. Splashes of tone on such words of intensification as: *all, so, such, just, very* make for attracting the listener's attention. Deliberately strict rhythm serves as a means of creating the image of action dynamism so typical of fairy-tales.

It is interesting to note that though the prosodic arrangement of English and Russian fairy-tales is universal some differences are traced in their rhythmic and pitch characteristics. In an English fairy-tale the nuclear segment is characterized by the level tone. In the Russian fairy-tale the pre-nuclear segment has the level contour. The discrepancy in the mechanism of rhythm constituents is observed mainly in the temporal characteristics of intonation. As we have already said fairy-tale rhythm in English is created by the alternations of contrastive maximum and minimum syllable durations. In Russian relatively equal syllable duration is typical of fairy-tale rhythm. The following table clearly illustrates the difference:

Английский текст	once	u	pon	a	time	there	were	three	bears
Длительность слога в миллисекундах	320	40	190	40	440	90	90	270	450
Русский текст	жи	ли	бы	ли	три	мед	ве	дя	
Длительность слога в миллисекундах	260	240	230	140	180	260	280	240	

Due to its rhythmicality the English fairy-tale becomes an expedient material for teaching practice. A highly rhythmical fairy-tale text could be of great help in developing the habits of expressive reading and speaking. The reading of a fairy-tale should be anticipated by the analysis of its topic and composition as well as lexical and structural means of expressiveness in it. In the process of working at a fairy-tale text the listener's attention should be attracted to the stylistic effect of rhythm in it.

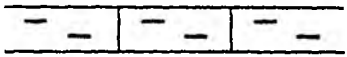
Now we shall turn to other types of prosaic text. We have already mentioned the oral text units which form the hierarchy of rhythm structure in prose. We are going to describe their prosodic characteristics which make them rhythmic units. As we have already said the basic rhythmic unit is a rhythmic group. It is char-

acterized by one stressed syllable with one-three unstressed syllables attached to it. The regular recurrence of the stressed syllables at relatively isochronous intervals is perceived as rhythmicality. Rhythmic groups blend together into intonation groups which correspond to the smallest semantic text unit — syntagm. The intonation group reveals the similarity of the following features: the tone maximum of the beginning of the intonation group, loudness maximum, the lengthening of the first rhythmic group in comparison with the following one, the descending character of the melody, often a bow-shaped melody contour. An intonation group includes from 1 to 4 stressed syllables. Most of intonation groups last 1—2 seconds. The end of the intonation group is characterized by the tone and loudness minimum, the lengthening of the last rhythmic group in it, by the falling terminal tone and a short pause.

The similarity of the prosodic organization of the intonation group allows us to count it as a rhythmic unit. The next text unit is undoubtedly the phrase. A phrase often coincides either with an intonation group or even with the phonopassage. In both those cases a phrase is perceived as a rhythmic unit having all the parameters of either an intonation group, or a phonopassage.

A.M.Antipova finds a remarkable regularity in the sounding of long phrases. Syntactical units like subordinate clauses, enumerations and other constructions are often grouped into a kind of steps. The first intonation group of each step is pronounced on a higher level than the final intonation group of the previous step. Such periodicity creates a sort of background against which the rhythm units are realized, e.g.

The British Isles | consist of England and Wales, | Scotland, | Ireland | and many small islands | chiefly to be found in the West[1].



The rhythmicality of a phonopassage is marked by the longest pause, the descending/stepping melody contour in the initial and final intonation groups, tone maximum at the beginning and

[1] The example is borrowed from the book: *Антипова А.М.* Ритмическая система английской речи. М., 1984, с. 58.

tone minimum at the end of the phonopassage. The prosodic parameters are practically the same in every rhythmic unit but each time they come into play on a larger scale and in a new variety of interrelationship. Thus in prose an intonation group, a phrase and a phonopassage seem to have similar prosodic organization:

1) the beginning of a rhythmic unit is characterized by the tone and intensity maximum, the slowing of the tempo;

2) the end of a rhythmic unit is marked by a pause of different length, the tone and intensity minimum, slowing of the tempo, generally sloping descending terminal tones;

3) the most common pre-nuclear pattern of a rhythmic unit is usually the High (Medium) Level Head.

The prosodic markers of rhythmic units differ in number. The intonation group has the maximum of the prosodic features constituting its rhythm. The phonopassage and the rhythmic group are characterized by the minimum of prosodic features, being mostly marked by the temporal similarity. The following extract may serve as a model of prosodic rhythm.

↘Many of the 'old houses, round a,bout, | ↘speak very 'plainly of 'those ,days | when ↘Kingston was a 'royal ,borough, | and ↘nobles and 'courtiers ,lived there, | near their ,king, | and the ↘long 'road to the 'palace ,gates | was →gay all >day ; with →clanking ,steel | and →prancing ,palfreys | and ↘rustling 'silks and ,velvets, | and →fair ,faces. || The ↘large and 'spacious ,houses, | with their ↘oriel 'latticed ,windows, | their ↘huge ,fireplaces, | and their →gabled ,roofs, | ↘breathe of the 'days of ↑hose, and ,doublet | of ↘pearl-em'broidered ,stomachers | and →complicated ,oaths. || (*Jerome K. Jerome*. Three Men in a Boat)

The description of style differentiating functions of rhythm is at its starting point. Still it is quite clear that there are some obvious differences between the rhythmic patterns of various speech realizations. Rhythm organization of, say, a dispassionate monologue will vary greatly from that of a familiar conversation.

It should be also noted that there are many factors which can disrupt the potential rhythm of a phrase. The speaker may pause at some points in the utterance, he may be interrupted, he may make false starts, repeat a word, correct himself and allow other hesitation phenomena.

Spontaneous dialogic informal discourse reveals a rich variety of rhythm organization and the change of rhythmic patterns within a single stretch of speech. The most stable regularity is observed on the level of rhythmic and intonation groups. They often coincide and tend to be short. The brevity of remarks in spontaneous speech explains the most common use of level heads of all ranges, abrupt terminal tones of both directions. The falling terminal tone seems to be the main factor of rhythmicality in spontaneous speech. Longer intonation groups display a great variety of intonation patterns including all kinds of heads and terminal tones. The choice of the intonation pattern by the participants of the conversation depends on their relationship to each other, the subject matter they are discussing, the emotional state of the participants and other situational factors. As a result informal spontaneous conversation sounds very lively and lacks monotony.

The extract from a conversation between a married couple illustrates the rhythm organization of spontaneous informal dialogue.

Wife. ᵛCareful, Jack! || There's a ˌbend over there. ||
Husband. I've ˌseen it, dear. | →Don't ˌworry. ||
Wife. →Don't hit that ˌlorry! | →Slow ˌdown a little. ||
Husband. We're going 'very slowly as it ˌis. || Only →forty miles an ˌhour. ||
Wife. →Forty miles an ˌhour | →isn't very ˌslow. || There's a ˌcrossing. →Can't you see the ˌsign? ||
Husband. I →see it all ˌright. Why ˌworry? |||[1]

The experimental investigations carried out in recent researches give ground to postulate the differences in the prosodic organization of prosaic and poetic rhythm:

1. In verse there are simple contours often with the stepping head, the falling nuclear tone is more often gently sloping; there is a stable tendency towards a monotone.

2. In verse the stressed syllables are stronger marked out by their intensity and duration than in prose.

3. In verse the tempo is comparatively slower than in prose.

4. In verse the rhythmic units except the rhythmic group tend to be more isochronous than in prose. The rhythmic group presents an exception in this tendency of verse.

[1] Three vertical bars indicate the end of a phonopassage.

We have attempted to portray rhythmic effect in different linguistic activities, different speech realizations. To sum it up, we should say that rhythm is a complicated language system, its elements being hierarchically organized. They represent hierarchy of functional character, or to put it in more general terms, this system comprises well-organized elements of different sizes in which smaller rhythmic units are joined into more complex ones: a rhythmical group — an intonation group — a phrase (a line in poetry) — a phonopassage.

In discussing rhythm we should emphasize its functional aspect.

Rhythm serves to unite elements in speech: smaller units are organized into larger ones, larger units include smaller ones. So rhythm unites text segments into a whole and at the same time cuts the discourse into elements. This integrative and delimitative function of rhythm illustrates the dialectical unity of the contrary manifestations of rhythm.

Rhythmically organized speech is easily perceived. From the psycholinguistic point of view the accuracy of the temporal similarity in rhythm has a definite effect on the human being. The regularity in rhythm seems to be in harmony with his biological rhythms. And which is by far more important the emotional effect of rhythm especially of poetic rhythm on a human being is very strong, its aesthetic significance is great. In the theory of aesthetics speech rhythm is counted as one of the objective signs of beauty.

On the linguistic level the pragmatic value of speech rhythm is realized in its volitional function. Rhythm is capable of expressing different degrees of emotional effect on the listener, e.g. ˈWill you ˈstop that ˈdreadful ˈnoise.

By way of conclusion we would like to say that prosodic elements together with the lexical and syntactical means play the role of the constituent of rhythm. Rhythm in itself is functioning as a framework of speech organization and is a very effective means of speech expressiveness.

Unfortunately we very often find the English rhythm to be the stumbling point for Russian learners. Many students learn to make the individual sounds of English correctly enough, yet their speech remains barely intelligible to English ears. The reason for this paradox is usually to be found in faulty rhythm and intonation.

As we perfectly know the basic rule of English rhythm is that the stressed syllables follow each other at regular intervals of time, that is to say there is the same amount of time between each pair of stressed syllables in a given sentence. A simple illustration of this rule is found in counting. From 1 to 6 every syllable is stressed, and they follow each other like a regular drum beat: one, two, three, four, five, six. The number 7 has two syllables, the first of them stressed and the second unstressed and this means that the two syllables have to be said in the same space of time as the other single syllables. The sequence 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 has eleven syllables, but only ten rhythmical beats, corresponding to the ten stressed syllables.

Counting is the simplest form of rhythmical exercise. Perhaps the next simplest form is children's verses and counting games.

↘Jack and 'Jill went 'up the > hill |
To ↘fetch a 'pail of ˌwater. ||
→Jack fell ˌdown ↘ and →broke his ˌcrown |
And ↘Jill came 'tumbling ˌafter. ||

In the foregoing examples there was one unstressed syllable between each pair of stressed ones. The next step will be two unstressed syllables between each pair of stressed syllables.

I ↘like to go 'out in the ˌgarden, |
I ↘like to get 'up on the ˌhill |
I ↘like to do 'anything ˌreally, |
But ↘hate to do 'nothing at ˌall. ||

The popular sort of comic verse called a limerick has a similar pattern. There are two unstressed syllables between each pair of stresses. Here is an example.

There ↘was a Young 'Lady of ˌNiger |
Who ↘smiled as she 'rode on a ˌtiger |
They re →turned from the ˌride |
With the →lady in ˌside |
And a ↘smile on the 'face of the ˌtiger. ||

It is fairly easy to keep the regular drum beat of stresses going, when there are the same number of unstressed syllables between them. It is a little more difficult to do this when there are different number of unstressed syllables between pairs. In the next example there are four stresses in each line, but the first line

has no unstressed syllables between the stresses, while the second and the fourth have one unstressed syllable between each pair, yet each line takes the same length of time to say as the others.

\One, 'two, 'three, ,four, |
\Mary 'at the 'cottage ,door. ||
\Five, 'six, 'seven, ,eight |
\Eating 'cherries 'off a ,plate. ||

In the serious verse that follows the number of unstressed syllables in between the pairs of stressed ones is sometimes one and sometimes two so that the absolute regularity is missing. Nevertheless the stresses still form a drum beat as before and this beat must be kept going all through the lines.

\Give a 'man a 'pipe he can ,smoke |
\Give a 'man a 'book he can ,read |
And his →home is ,bright |
With a →calm de\light |
Though the \room is 'poor in,deed. ||

In ordinary speaking the number of unstressed syllables between each consecutive pair of stresses varies considerably. This is one of the main differences between prose and verse, so it is important to be able to keep the drum beat of the stresses going regularly no matter what the number of intervening unstressed syllables.

Here is an exercise designed to help do this.

Can \anyone 'tell me the ,time? ||
Does \anyone 'know the ,time? ||
Does \anyone 'know ,Tom? ||
I'm \going to 'town for the ,day. ||
I'm \going to 'town to,day. ||
I'm \going to 'town ,now. ||
I'm \perfectly 'certain you're ,right. ||
I'm \almost 'certain you're ,right. ||
I'm \quite 'certain you're ,right. ||

A long passage of a descriptive text may be now recommended for practising rhythm. For example:

The →weather in ,England ; can →change 'very ,quickly. ||
→One 'day 'last ,week | I \went for a \walk in the ,country. ||

→ When I ˌstarted ⌇ → early in the ˌmorning | the → weather was ˌbeautiful. || The → sun was ˌshining, ⌇ the → sky was ˌblue | and there were ↘ no 'clouds at ˌall. |||

Care should be taken to leave the form words like *am, is, are, were, has, have, can*, etc. unstressed when necessary. As these words generally occur in unstressed position the weak form is more common than the strong form. It is of great importance for all learners to use the weak forms of these words in unstressed positions. It will improve their speech enormously, and will help them to acquire the characteristic rhythm of spoken English. Unless they use weak forms of prepositions, articles, conjunctions auxiliary verbs and also personal and possessive pronouns correctly, their rhythm will never be right. When listening to English they should try to notice the weak forms, and when speaking themselves, to copy the English way of using them.

A. The → children are in the ˌhall. ||
B. → So are their ˌparents. ||
A. → Yes, they ˌare. ||

A. I → like them ˌboth. ||
B. ˌYes, ⌇ I → like them ˌtoo. ||
A. I'd → rather see ˌthem than ˌanyone. ||

Russian learners should be especially careful in rhythm-unit break. Mention has been made that the division into rhythmic groups does not coincide with the potential sense groups. The unstressed syllables in between the stressed ones usually tend to link to the preceding stressed syllable in spoken English which Russians often neglect. For example, the typical mistake in pronouncing the phrase: "↘ Go and ⌇ 'tell him to ⌇ ˌphone me" is something like: "↘ Go ⌇ and 'tell ⌇ 'him ⌇ to ˌphone me."

The attention of advanced students who have already mastered the stable regularity of English rhythm should be drawn to the rhythmic organization of large rhythmic units, such as intonation groups, phrases, supraphrasal blocks. The beginning of a rhythmic unit should be said on a higher level, louder and slower than the end of it; a pause and the terminal tone at the end of the rhythmic group contribute a lot to their rhythmicality.

All you have read about intonation in this chapter is nothing but a much needed framework for understanding its uses in particular social situations. We are going now to refine your knowledge of intonation by discussing its stylistic value.

STYLISTIC USE OF INTONATION

This section sets out to give a detailed description of each intonational style. It also tends to be a meaningful guide to the stylistically distinctive function of intonation. As the scope of this course is theoretical we shall try to deal with problems concerning phonostylistics in general and with reference to particular intonational style description rather than the analysis of each style registers, so that a number of theoretical confusions may be identified and possibly cleared. We must admit, however, that there are so many deviations from norms in speech reality nowadays that the problems of phonostylistics are nowhere near solution.

It becomes necessary as a preliminary exercise to review some of the influential ways in which the intonational styles were described in the textbook "Практическая фонетика английского языка" (28). The authors of this book give the following definition of the intonational style: "An intonational style can be defined as a system of interrelated intonational means which is used in a social sphere and serves a definite aim of communication" (28, p. 216).

The choice of an intonational style is determined primarily by the purpose of communication and then by a number of other extralinguistic and social factors. The achievements in experimental phonetics put forward in recent years, concrete examples and conclusions taken from the research field work allowed the authors of the book mentioned to single out the following intonational styles:

1. Informational.
2. Academic (Scientific).
3. Publicistic (Oratorial).
4. Declamatory (Artistic).
5. Conversational (Familiar).

As the chapter proceeds we shall attempt to show that both the definition and classification of styles are not factitious ones but concrete examples taken from experimental data.

In our view the conception that the intonational style markers are restricted to certain kinds of situational contexts and above all to the speakers' aim in communication is extremely valuable. Thus an intonational style is seen as some kind of additive by which a basic content of thought may be modified.

This view of style sees it as the variable means by which a message is communicated.

It is already widely accepted that the purpose of communication determines the types of information conveyed in oral texts. They may be intellectual, attitudinal (emotional, modal) and volitional (desiderative). Each of these types is realised by means of specific prosodic parameters.

These stylistically marked modifications of all the prosodic features represent the **invariants** of the style forming intonation patterns common to all the registers of the particular style.

Thus it may be said that there is a strongly marked tendency for suprasegmental prosodic features to form a basic set of recurrent patterns, which is occasionally distributed by the introduction of specific prosodic and paralinguistic effects.

The invariant of the intonation patterns circulating in certain fields of communication at a given period of time may be treated as the norm or the ideal of speech behaviour for these particular spheres of communication. But the task set by phoneticians now is not only to determine the invariants but also to note and interpret various deviations from them. It should be mentioned, however, that deviations should not exceed the range of tolerance set by the invariant.

It has already been assumed that intonation patterns vary in accordance with types of information present in communication. Presumably there may be patterns used for: (a) intellectual purposes, (b) emotional and attitudinal purposes, (c) volitional and desiderative purposes, by which the substantive goals of speakers are carried out. As any discourse carries intellectual information intellectual intonation patterns are present in every style. The distribution of attitudinal and volitional patterns shapes the particular intonational style and distinguishes one from another. From the point of view of this distribution the informational style seems to be the most neutral as its main purpose is to convey information without the speaker's concern or personal involvement. Evidently, there are theoretical and procedural reasons to regard it as the starting point of the intonational styles description and the basic invariant for opposition as there are fewer deviations there as in any other style from the minimal reader/speaker involvement. It is the least marked kind of situationally influenced English and therefore it may be considered as the opening variety for phonostylistic analysis. So we shall begin with this style and make an attempt to deal with it in its entirety.

We must admit, however, that any intonational style is an extremely complex and heterogeneous phenomenon. Even a single speech act involves an extraordinary range of factors and could be considered from any different even conflicting points of view.

Confronted with all these difficulties a phonostylist must ask himself what the goal of his analysis is and direct his attention to essentials. In this book the description will be focused on those style forming features that may present certain amount of interest for would-be teachers of English and find practical application in their work. Let all the matters of controversy and major arguments be reviewed and evaluated elsewhere.

1. Informational Style

This intonational style is sometimes qualified as "formal", "neutral", since in an ideal setting, in its pure manifestation it is least of all influenced or correlated by extralinguistic factors.

Where is it then purely manifested? First of all, in the written variety of an informational narrative read aloud. The majority of these texts are of a purely descriptive character and are simply called descriptive narratives. The written speech, the reading, should not be subjected to the contextual variables and the commonest and "ideal" situation for this register is the reading of such texts in class. They may be labelled as **educational informational descriptive narratives**.

As is widely known, spoken speech is less imperial, the spoken variety of such texts expresses more personal concern and involvement. They may be presented in different forms: monologues, dialogues, polylogues.

Press reporting and broadcasting, especially the reading of the news coverage over the radio is very close in its manner to this type of the style as the reader tends to sound impartial when reporting routine news or weather forecasts, for example.

It should be noted here that the reading of news coverage in a TV studio differs from the one over the radio as it suggests the attempts on the side of the announcer to address the viewers, so some emotional evaluation may appear in the information.

The news bulletin and broadcast talk have both written and spoken existences which are of equal importance for the simple reason that they were written specially to be read aloud. The in-

formational style includes other spheres of communication: business and legal intercourse, the reading of administrative documents and so on.

The degree of formality in the character of participants' relationship in different types of the informational style presentation may smooth the borderline between them. Thus it would be wrong to identify this style as formal, because the degree of formality may vary. As it was stated earlier, the contours of the intonational styles presentation in speech reality have not been very definitely outlined yet. So the most informal realization of any kind of information in the form of a dialogue may lead to a conversational style, and, respectively, extra formal sounding of information may lead to an academic style talk and so on.

We shall limit our description of the style to two common types: educational information and press reporting/broadcasting. We would like to specify here that **types of style**, i.e. certain spheres of discourse would be called **registers**, the term being widely used abroad in a broader sense, often meant as style in general. The table below shows the correlation between the informational intonational style registers, and speech typology.

Table 1

Speech typology	Varieties of the language		Forms of communication			Degree of preparedness		Number of participants involved		Character of participants' relationship	
Informational style registers	reading	spoken, speaking	monologue	dialogue	polylogue	prepared	spontaneous	public	non-public	formal	informal
Educational information	+	+	+	+	+	+	+	+	+	+	+
Press reporting and broadcasting	+	+	+	+	+	+	+	+	+	+	—

Roughly speaking, any variety of the language, both written and spoken, may be presented either by reading or speaking in a prepared or spontaneous way in a formal or informal manner.

Table 2

Spheres of discourse (Registers)	Varieties of the language and forms of communication									
	Written variety of the language (Reading)				Spoken variety of the language (Speaking)					
	Monologue		Dialogue		Monologue		Dialogue		Polylogue	
	public	non-public	public	non-public	public	non-public	public	non-public	public	non-public
Educational information	Reading in class	Reading to a listener	Reading in class	—	Speaking public	Talking to a listener	Talking in class	Just talking	Round-table talks	—
Press reporting and broadcasting	Reading news coverage over the radio, TV; reading newspaper in class	Reading news-paper to a listener	—	—	Talking on events over the TV	Talking to a listener	Com-menting on the events, discus-sing them	Just discus-sing the events	Round-table talks of commen-tators	—

We would like to attempt now to suggest certain spheres of discourse in which the informational intonational style (IIS) could be heard in relation to forms of communication and the number of participants involved.

Now, when we have more or less definitely outlined the contours of the style, our next step will be to analyse prosodic characteristics of this particular intonational style. As it was stated in Chapter I, the following parameters of prosodic analysis should be applied to a text: pitch (variations of pitch direction, pitch level, pitch range), loudness, tempo (the rate of the utterance and pausation). It also includes rhythm and timbre as they have very specific suprasegmental expression of various emotional, expressive and evaluative overtones.

It would be fair to admit here that when faced with a text of some kind — what appears to be a mass of coordinated data — a starting point for analysis is often difficult to choose.

As it was suggested above, the ideal start is an informational, purely descriptive text, most commonly heard in class. We think that it is a basic-measuring rod for the types of styles of other situations. The analysis of it here is carried out by the procedure of systematic phonological opposition: the phonostylistic organization of reading will be systematically compared with the spoken version (in the forms of a monologue and a dialogue). The main reason for this is that it seemed to be dictated by the requirements of close study of the specimens in comparison since the two varieties of the language differ greatly in sound and have their own distinctive specifications of pronunciation and the correspondence between them should be looked at.

The description of the informational intonational style will proceed in the following order:

I. Informational educational texts.

1. The phonostylistic analysis of the written descriptive narratives.

2. The analysis of the spoken variety of such texts.

3. The opposition of spoken and written speech produced in the form of a monologue.

4. The analysis of characteristic phonostylistic features of dialogues on the topic suggested in the monologues.

5. The opposition of the phonostylistic parameters of a monologue and a dialogue.

II. Press reporting and broadcasting.

1. The description and analysis of characteristic prosodic features of a news bulletin reading over the radio.

2. The opposition of the news bulletin and an informational descriptive text reading characteristics.

III. The conclusion.

Informational Educational Descriptive Texts. Written Speech

In recent years it has become fashionable in education to extol the importance of the spoken language with a depreciation of the values of reading, consequently skill in reading now is either low or inadequate. This situation needs considerations. As was stated in Chapter I, there is a gap between spoken and written varieties of the language and the task of the teacher is to differentiate these forms of the language appropriate to speech and writing and to assign to each their "proper" sphere. It is perhaps just to say that many teachers and lecturers recognize the gap but are unable to improve this state of affairs because of the lack of materials and methods.

These two varieties of the language differ psychologically and intellectually.

Talking is easier than the laborious solitary acts of reading. The reluctant reader will have to be given more cogent reasons for the efforts required of him. Reading aloud is even harder. It is neither spontaneous speech nor writing. In class it has purely educational purposes to stimulate pupils or students for prose and poetry appreciation and comprehension. Needless to say a written passage does not always coincide with a phonopassage. In reading aloud a written passage may be broken into several phonopassages or, on the contrary, short passages may be combined into one long lasting phonopassage.

We would like to recapitulate here that as has been mentioned in Chapter I, reading and speaking differ totally in the speech production activity as explained by certain basic psychological reasons. So in teaching to read we are simply helping to transfer from one medium to another. Reading and speaking each requires differently directed intensive efforts. Consequently,

the phonetic features of these varieties of texts would be basically different.

We would like to start the phonostylistic analysis of the reading, in which some customs and traditions of Cambridge University life are described.

MAY WEEK IN CAMBRIDGE

(Reading)

The →most 'interesting and biz'zare time of the year to visit ,Cambridge | is during ,May Week. || This is →neither in May |, nor it is a ,week. || For →some ,reason ; which nobody now re>members | 'May Week is the 'name 'given to the ↑first 'two 'weeks in ,June |, the →very end of the University 'year. |||[1]

The ↘paradox is ↘pleasantly 'quaint, | but is ↘also ↘in a way ↘apt. || ↘May Week denotes 'not so much a par'ticular 'period of ,time | as the ↘general 'atmosphere of rela'xation and un,winding ; at the →end of the year's ,work. |||

Any phonostylistic analysis falls into several steps. Obviously the first procedure will be **the description of the speech situation** which comprises the purpose, setting and participants. In reference to this text we may say that this is a descriptive narrative, the main purpose of the reader being just to give information, it has no secondary aim which creates a definite atmosphere of impartiality, thus the voice timbre is distinctly resonant, the speaker sounds dispassionate and rather reserved.

The presenter of the text is a student of Oxford University who has a clear advanced RP accent. The reading is directed to a group of students, Russian learners of English.

The next step is to define other extralinguistic factors, **the degree of preparedness** among them. The analyzed text may be characterized as half prepared or quazispontaneous as it was read through beforehand. Now to the characteristics on the prosodic level. One should undoubtedly begin with the **delimitation**. The text is split into phonopassages, then into phrases,

[1] ——— — communicative centre of a phrase.
═══ — communicative centre of a phonopassage.

then into intonation groups, correspondingly, the length of pauses is varied according to the text units. Pauses are made at syntactical junctures within the phrase and between them. However, potential syntagms are also quite common. The relevant length of pauses makes the reading careful and distinct so that the listeners could understand it without worrying over the meaning of a few difficult words.

Among the **prosodic features** we should mention the following:

Loudness is relatively stable and normal, but within a phonopassage boundaries there is a gradual decrease of it. Thus it is easy to spot the boundaries by loudness contrasts between the final and initial intonation groups of two adjacent phonopassages. The same could be said about levels and ranges: there is a distinctly marked decrease of them within the phonopassage.

The rate of utterances is normal or rather slow, not noticeably varied. Together with the medium length of pauses the general tempo may be marked as moderate.

The rhythm may be characterized as systematic, properly organized, interpausal stretches have a marked tendency towards the rhythmic isochrony.

One of the main style differentiating features on the prosodic level is **the accentuation of the semantic centres**. It is expressed commonly by terminal tones, pre-nuclear patterns, pitch range and pitch level degree of loudness on the accented syllables, and also by the contrast between the accented and non-accented segments of the utterance. In view of this particular text we may say the following.

Terminal tones are commonly expressed by a low falling tone: occasionally expressive high falls are used, this usage conveys the meaning directly; in non-final segments mid-level tones and low rising ones are quite frequent:

The → most ˈinteresting and biˈzzare time of the year to visit ˌCambridge | is during ˌMay Week.

Pre-nuclear patterns are not greatly varied, falling and level types of heads prevail. Also several falls within an intonation group are typical for the reader:

The ↘paradox is ↘pleasantly ˈquaint | but is ↘also ↘in a way ↘apt.

The contrast between accented and unaccented segments of phrases is not great, which is known to be a marker of any reading in general; the stress is decentralized, i.e. equally distributed on accented syllables of pre-nuclear patterns.

Table 3

The Invariant of Phonostylistic Characteristics of Informational Educational Descriptive Texts Reading

Timbre		impartial, dispassionate, reserved, resonant
Delimitation		phonopassages — phrases — intonational groups; pauses are mostly at syntactical junctures, normally of medium length but for the end of the passage
Style-marking prosodic features	Loudness	normal (piano) throughout the text, varied at the phonopassage boundaries
	Levels and ranges	decrease of levels and ranges within the passage
	Rate	normal (moderate) or slow, not variable
	Pauses	mostly syntactical of normal length, occasional emphatic ones for the semantic accentuation
	Rhythm	systematic, properly organized isochronic, decentralized accentuation
Accentuation of semantic centres	Terminal tones	common use of final categoric falls; in non-final segments mid-level and low rising tones are often used
	Pre-nuclear patterns	common use of falling and level heads or several falls within one interpausal unit
	Contrast between accented and unaccented segments	not great

Informational Educational Descriptive Monologue

Much has been said earlier about the differences between reading and speaking. Our goal here is to demonstrate them on the prosodic level by concrete examples. Now the text "May Week in Cambridge" was reproduced spontaneously by the same speaker in the form of a monologue. He did it in a rather formal manner and directed it to the same group of students. We may specify it as a certain specialized talk intuitively associated with the task set before the speaker — to give information on customs and traditions of university life in Britain. So it is clearly restricted to a particular informational function, thus the text presented seems to be most suitable for this informational style register and we consequently have cause to refer to it.

MAY WEEK AT CAMBRIDGE

(Reproduced by Roy Paully)

→ As you probably ˈknow | the uniˈversities of ˈOxford and ˌCambridge | are the → two ˈoldest universities in ˈEngland || and be→cause of > that, | because of their ˌage | they have → many traˌditions ‖ which to ˌforeigners ‖ might → appear to be very ˌstrange. || →One of these tra>ditions | is ˈMay Week in ˈCambridge. ||| This is parˈticularly ˌstrange | as it ˈdoesn't ˈhappen in ˌMay and is ˈnot in ˈfact a ˌweek. || It ˈstretches ˈover ˈtwo weeks, | the ˈ7th and ˈ8th weeks of the ˈterm. || There is ˈno ˈreal ˈreason for ˈcalling it May ˌWeek | and per>haps ‖ it is ˈheralding the ˈcoming of ˈMay | which is till ˈthen ˈbeing ig>nored ‖ in ˈfavour of ˈmore ˈserious matters ‖ like exami→nations. ||| There're →many different acˌtivities ‖ which →go on during ˌMay ˌWeek | for the ˈmost ˈpart there are ˈmany >plays | put on by indiˈvidual ˈcollege soˌcieties. | ˈvery often ˈtaking place outˌdoors ‖ in →College ˈgardens. ||| There are ˈalso ˈrowing races | with →crews of ˌeight ‖ competing in ˈbumping races. ||| What I →mean ˌbumping races ‖ is when the ˌaim is >to ‖ >bump ‖ →back of the ˈboat ‖ in ˌfront of you ‖ on the →Cam ˌriver. |||

ˈPersonally ‖ I come from ˈOxford University, | so →I know ↑ far more about ˈOxford. || In >Oxford | we don't have a ˌMay ˌWeek. || We ˈwork until the end of the ˈeighth week | when exami→nations ˈfinish and | it is not till ˌthen | that we → have our eˌquivalent of May Week | when →similar ˌthings take ˈplace. |||

The purpose of the communication in the setting described explains the businesslike, dispassionate, detached, impartial voice timbre. Occasionally the speaker sounds interested, especially, when he speaks about his own experiences.

Speaking about the delimitation of spoken texts it should be pointed out that it depends on the degree of spontaneity. The basic unit of a monological spoken text is also a phonopassage but its stretch is greatly varied, much greater than in reading. As in oral speech the rules of syntax are not strictly followed, passages are broken into utterances which do not often coincide with sentences. Pauses at the end of the phrase are commonly optional; hesitation pauses often break a syntagm into several intonational groups and occur both intentionally and non-intentionally. They may be filled and non-filled (silent):

What I →mean ˌbumping races ‖ is when the ˌaim is > to ‖ >bump ‖ →back of the ˈboat ‖ in ˌfront of you ‖ on the →Cam ˌriver. |||

As the addressees are a comparatively small group of people the text on the whole is of normal loudness which is not greatly varied but for the decreases towards the end of the passage. The increase of loudness is evident at the start of the phonopassage and on its emphatic communicative centres. This may be also referred to levels and ranges. Various ranges and levels bind together several successive sequences, each having its own tone group, into a larger unit.

The rate of utterances is remarkably varied. In the majority of cases it is normal, but increases towards allegro on less significant units and decreases towards lento on emphatic centres of the phrase or supraphrasal units.

The length of pauses depends on the syntactical and semantic value, the maximum length being at the passage boundaries.

This spoken monologue is characterized by non-systematic rhythmicality, subjective isochrony; the rhythmicality within the phonopassage is achieved by the alternation of all prosodic parameters.

Semantic centres of all segments of speech are accentuated by the variation of all prosodic features. Terminal tones are final and categoric, the emphasis being achieved by the use of high (medium) abrupt falls, or several falls within one interpausal unit. Low rising and mid-level tones are common for initial or

Our task now is to compare the invariant characteristics of the two varieties of the language in this register by the systematic phonological opposition.

The results of the comparison are shown in table 5, p. 199—200.

We are now ready to generalize our results and make the following conclusion:

1. Written (read aloud) and spoken texts belonging to the same intonational style have different prosodic realization.

2. In oral speech the means of the prosodic realization are more vivid, expressive and varied, especially in voice timbre, loudness, tempo, length of pauses and rhythm.

3. The speaker often uses some hesitation phenomena (hesitation pauses and temporizers) intentionally, which enables him to obtain the balance between formality and informality and establish contacts with the public.

4. The speaker uses various hesitation phenomena unintentionally which enables him to gain the time in search for suitable expression or idea and thus not interrupt the flow of speech.

5. The speech is characterized by a greater number of intonation groups, supraphrasal units and phonopassages. In spontaneous speech an intonation group doesn't always coincide with a syntagm. Pauses at the end of the phrase are optional.

6. The reading is characterized by a decentralized stress distribution whereas speaking — by a centralized one.

7. Spontaneous speech is more contrastive, communicative centres are more vividly underlined; the emphasis is achieved by a wider range of terminal tones, greater degree of loudness and prominence of accented segments.

8. The reading is rhythmical, oral speech rhythm is non-systematic, unpredictable, variable.

The Opposition of Phonostylistic Invariant Characteristics of Informational Descriptive Monologue

Phonostylistic characteristics		Varieties of the language	
		Reading	Speaking
1		2	3
Timber		impartial, dispassionate, reserved resonant	dispassionate, businesslike, reserved, occasionally interested
Delimitation		phonopassages — phrases — intonation groups; pauses are mostly at syntactical junctures normally of medium length, but for the end of the passage	phonopassages — phrases — intonation groups; a number of hesitation and breath-taking pauses (filled and non-filled) breaks phrases into a great number of intonation groups, destroying their syntactical structure
Other style-marking prosodic features	Loudness	normal (piano) throughout the text, varied at the phonopassage boundaries	normal (piano), contrastive at the boundaries, decrease towards the end of the passage; increase on semantic centres
	Levels and ranges	decrease of levels and ranges within the passage	decrease of levels and ranges within the passage; various ranges and levels bind together several sequences into a larger unit
	Rate	normal (moderate) or slow, not variable	variable; allegro on interpolations, lento on emphatic centres
	Pauses	not greatly varied, mostly syntactical, occasionally emphatic	varied; the length depends on the syntactical and semantic value of the segment, the maximum length being at the passage boundaries
	Rhythm	systematic, properly organized, isochronic, decentralized accentuation	non-systematic, subjective isochrony, centralized stress distribution, the rhythmicality within the passage is achieved by the alternation of all prosodic features

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Timber		impartial, dispassionate, reserved resonant	dispassionate, businesslike, reserved, occasionally interested
Delimitation		phonopassages — phrases — intonation groups; pauses are mostly at syntactical junctures normally of medium length, but for the end of the passage	phonopassages — phrases — intonation groups; a number of hesitation and breath-taking pauses (filled and non-filled) breaks phrases into a great number of intonation groups, destroying their syntactical structure
Other style-marking prosodic features	Loudness	normal (piano) throughout the text, varied at the phonopassage boundaries	normal (piano), contrastive at the boundaries, decrease towards the end of the passage; increase on semantic centres
	Levels and ranges	decrease of levels and ranges within the passage	decrease of levels and ranges within the passage; various ranges and levels bind together several sequences into a larger unit
	Rate	normal (moderate) or slow, not variable	variable; allegro on interpolations, lento on emphatic centres
	Pauses	not greatly varied, mostly syntactical, occasionally emphatic	varied; the length depends on the syntactical and semantic value of the segment, the maximum length being at the passage boundaries
	Rhythm	systematic, properly organized, isochronic, decentralized accentuation	non-systematic, subjective isochrony, centralized stress distribution, the rhythmicality within the passage is achieved by the alternation of all prosodic features

Table 5, cont'd

1		2	3
Accentuation of semantic centres	Terminal tones	common use of final categoric falls; in non-final segments mid-level and low rising tones are quite common	common use of final categoric falls on semantic centres, non-final falls, mid-level and rising tones in non-final intonation groups. The emphasis is achieved by the use of high falls (very abrupt for a male voice)
	Pre-nuclear patterns	common use of falling and level heads or several falls within one interpausal unit	varied; common use of level heads with one accentuated pre-nuclear syllable; descending falling heads are broken by the "accidental rise"
	The contrast between accented and unaccented segments	not great	great, achieved by the centralized stress pattern; increase of loudness, levels and ranges on semantic centres; high categoric falls, emphatic stress on them and other variations of different prosodic characteristics

Now by way of conclusion we would advise future teachers of English to drift from the traditional, non-stylistic approach to the language teaching in their future practical work and pay special attention to the differences between the two varieties of the language.

Informational Dialogues

Our next step in the analytic procedural style description will be the text handled by two speakers in a rather formal manner.

But, before doing this, we would like to describe here different types of dialogues. Firstly we must mention that dialogues of all types are very widely used forms of speech and because of the great flexibility of their usage there is a wide range of contrasts. Consequently there exists no general agreement among phoneticians on what is meant by this or that type of a dialogue and the results of the research carried out into this form of speech have been yet rather sporadic in their comments. They provide us with a great deal to discuss at all levels of analysis (13, 30, 53).

Evidently the type of a dialogue may be primarily distinguished through its phonology. Very close examination of experimental data of many researchers shows that certain prosodic characteristics of considerable importance diagnose different types of dialogues. "A clear central area of distinctiveness can be defined, but there are a number of very uncertain marginal issues which reflect the way in which conversation blends imperceptibly into discussion and talking shop" (54, p. 116).

The following factors seem to be basical for the description in the dialogue — monologue dichotomy:

1. the subject matter of a talk, its randomness,
2. the inexplicitness of the speech,
3. the incompleteness of utterances,
4. the redundance of vocal expression.

This gives us the reason to distinguish several types of dialogues:

1. specialized informative talks on serious and intellectual subject matters (such as educational, psychological, political, etc.),
2. discussions on serious and weighty problems,
3. debates,
4. everyday conversations, telephone talks among them.

Evidently, the major markers of these types will be on the prosodic level.

We do not wish to suggest that any clear lines of stylistic demarcation have been drawn in this classification, it is unlikely that there is a distinct boundary between the varieties.

Now we shall focus our attention on the first type as these dialogues are within the sphere of the informational style discourse and other types can wait until later description.

We would like to mention here that conversation will be opposed to the informational talks later in the course as there is a great departure between them on all the levels of linguistic analysis.

Also these talks should be distinguished from discussions in terms of the degree of seriousness of the subject matter and the formality of the occasion and probably non-segmental prosodic correlations should be taken into account. It is quite obvious, however, that there are certain things common to all dialogue talks as opposed to monologues and we would like to describe them here.

Firstly, a dialogue is a coordinated simultaneous speech act of two participants or rather a speaker and a listener. Thus the factuous contact is conveyed. It is essential that in any successful conversation "give-and-take" between the sender and receiver should be maintained.

The attention-getting function is established by putting all sorts of questions, agreement question tags to show the interest and guide the course of the talk towards a given theme and also by using all sorts of response and non-response words and utterances both of verbal and non-verbal character. This factuous communion may be so close that the speakers often talk simultaneously. There might be also permanent recapitulations upon the request of the listener. The utterances on the part of both participants tend to be incomplete since the context makes perfectly plain to them what was being intended thus making redundant its vocal expression.

Hesitation phenomena are of primary significance in determining acceptability or otherwise of conveyers. Hesitancy is strongly influenced by periods of creative thinking and word searching. Voiceless hesitation is also very frequent, it tends to occur relatively randomly, not just at places of major grammatical junctions, which is more the pattern of written English read

aloud. Voiced hesitation consists of hesitant drawls, verbal and non-verbal fillers such as *er*, *ehm*, *mm*.

Any kind of dialogue is also joined up by means of non-verbal communication — facial expressions (a raised eyebrow, a glance towards the partner, etc.), gestures, body movements and noises such as whistles, artificial clearing of the throat, snorts, sniffs, laughs and other paralinguistic features of significance.

On the lexical and grammatical level there is a high proportion of errors which seem not to bother the speakers.

Interpolations are commonly interjectional in character, their function is primarily to indicate that attention is being maintained.

We should also mention here all sorts of introductions, afterthoughts, high proportion of parenthetical words which even increases in a more serious type of conversation.

Dialogues are commonly characterized by a large number of loosely coordinated clauses, the coordination being structurally ambiguous, a series of loosely coordinated sentence-like structures.

The phonostylistic analysis of the helpful sample of the dialogue-talk of the informational character will allow us to draw the conclusions of the prosodic distinctive features, marking this variety of dialogues.

The talk is about two oldest universities of Britain — Oxford and Cambridge. This is a mono-thematic talk, though the speakers display some obvious differences of opinion on the subject matter.

Oxford and Cambridge Universities

A: I think some → people might be ˋquite interested >to { ˳know | what >the { principal ˋdifferences are { between the ˋsort of edu'cation you >get { at → Oxford and ˎCambridge | and ˋany 'other 'type of UniˋversityEduˎcation. ||

B: > Um... ||

A: > What? { ˋWhat's the 'sort of >thing { that you would ˋhighlight? ||

B: ˎNaturally { >differences { in eduˋcation... ||

A: ˈYes. ‖
B: I supˌpose... ‖
A: >Well, | what the university ˈoffers one. | >Why, ⁞ for example one would >choose... ‖
B: ˌAh, | I ˌsee. ‖
A: ˌYes... to ˈgo to ˈone of those uni>versities ⁞ or appˈly to one of those universities ⁞ ˈbother to ˈtake the ˈextra exam. ‖
B: ˌYes. ‖ >Er, | ˌcertainly, | >er, | I think just >this ⁞ I ssˈsocial life in inverted ˈcommas >is ⁞ >er ⁞ a >very ⁞ >er atˈtractive thing about the university ⁞ >which in a way's ⁞ ˈcertainly a | part of eduˈcation you reˌceive ⁞ when you go to ˈOxford or ˈCambridge... ‖
A: The tu→torial ˌsystem ⁞ I >think ⁞ is a parˈticularly good system ⁞ >which's been ⁞ parˈticularly ˈfinely ˈturned up in Oxford and ˌCambridge... ‖
B: ˌYa. ‖
A: ...though it ˌdoes exist in ˌother universities. ‖ You have a ˈgreat ˈdeal more ˌfreedom | about what you are going >to ⁞ ˈwhat ˈcourse of >study you are pre→cisely going to >follow. ‖
B: ˌYa. ‖
A: There's ˈvery much ˈleft >to ⁞ one's own ˌchoice. You >have... ‖ In ˈmy course I remember | I could look up→ pages and ˈpages of things that I could potentially ˌdo. ‖
B: ˌYes. ‖
A: It was →really just a ˌquestion of ˌone ˌsitting ˈout | what I ˈreally wanted to do. |||

The participants are post-graduates, students of the Russian language of Oxford and Cambridge Universities who know each other quite well. They are in the same age group (mid-twenties) and share the same university educational background as mature students.

They discuss quite spontaneously a serious topic, in which

they are competent or rather knowledgeable, interested, but not emotionally involved and concerned.

The subject area specifies somewhat careful elaborated code of the style. As the suggested theme is rather weighty the speakers sound rather formal, businesslike, but occasionally interested and even involved.

We think that there are certain grounds for choosing this variety of a dialogue as the most suitable for phonostylistic analysis. The talk is taking place in a hostel room; the speakers are surrounded by the same set of physical objects and aware of each other's facial and body gestures.

The factuous contact is shown by all sorts of words like: *yes, right, sure, of course*, expressing the immediate reaction on the part of the listeners as well as all kinds of non-verbal sounds and noises like *hm, mm, uhu, aha*, etc.

The speakers are relaxed and not worried about the impression they are creating unlike a lecturer or a public speaker. Slips and errors of grammar occur and do not bother them. Similarly, slight carelessness of pronunciation is common, thus we may speak about occasional deviations from the elaborated code.

As any dialogue is a simultaneous act on the part of the sender and addressee, they are both mutually dependent and adapt to the strategies of one another and to the need of the information required. Intonation serves to establish contact between the participants thus realizing the phatic function of speech.

On the prosodic level the dialogue falls into coordinated blocks, split into dialogical units (stimulus — response). Then into phrases, then into intonation groups, each unit characterized by semantic and phonetic integrity, by certain prosodic interrelated features. Correspondingly, the length of pauses between the partners' parts serves as a marker of their contact. The ends of utterance pauses are frequently absent due to the rapid taking up cues:

B.: I suppose
A.: Well, what the university offers one. Why, for example one would choose...
B.: Oh, I see.

Occasional silence for purposes of emphatic pause and frequent use of hesitation pauses (both filled and silent) are also characteristic of this talk:

B.: ˌYes. | > Er | ˌcertainly, | >er, | I think just >this { ss'social life in inverted 'commas { > { is >er { a >very { at'tractive thing about the university...

Among style-marking prosodic features we should mention the following:

Loudness is normal or reduced (piano expression), varied at the block boundaries. Important variation in loudness suggests the degree of seriousness of the thematic information. Sometimes the speakers lower their voices to an inaudible mumble or simply trail off into silence, which is undoubtedly connected with changes in levels and ranges that are lowered and narrowed for many monosyllabic responses.

The rate is flexible as the speakers wish it to be. *A* speaks very slowly, *B* — a bit faster, but for both of them the speed is characteristically uneven within and between utterances, varied to outline semantic centres.

The rhythm is non-systematic, greatly varied, interpausal stretches have a marked tendency towards the subjective rhythmic isochrony; the rhythmicality within the block is achieved by the variation of all prosodic parameters.

The accentuation of semantic centres is achieved by the use of emphatic and compound tones (High Falls, Fall-Rises, Fall + Rises), increase of loudness, widening of the range of nuclei, changes in the rate of utterances and by the great contrast between accented and unaccented segments of phrases.

Pre-nuclear fragments are usually very short — heads with one accented pre-nuclear syllable are most common. High preheads occur very often.

The auditory analysis of the above examples and of a great number of similar talks and the recent experiments of phoneticians (41, 13, 29) allow us to attempt to draw the invariant of phonostylistic characteristics of informational spontaneous dialogues. The results are shown in Table 6.

The Invariant of Phonostylistic Characteristics of Informational Spontaneous Dialogues

Timbre		businesslike, detached, occasionally interested
Delimitation		coordinated block — dialogical units (stimulus — response) — phrases — intonational groups, frequent absence of end-of-utterance pauses due to the rapid taking up of cues; frequent use of hesitation pauses (filled and silent), occasional silence for purposes of emphatic pause
Style-marking prosodic features	Loudness	normal or reduced (piano expression); variation of it at block boundaries and also for the accentuation of semantic centres; occasional inaudible lowered mumbles and trailing off into silence occurring by the end of the segments
	Levels and ranges	greatly varied, especially for the contrastive accentuation of semantic centres; narrowed pitch ranges for many monosyllabic responses
	Rate	slow or normal, varied on the accented semantic centres and interpolations, characteristically uneven, as flexible as one wishes it to be
	Pauses	may be of any length; their length being the marker of contact between the speakers; simultaneous speaking is quite common; silence of any stretch occurs for the sake of emphasis and as a temporizer to gain some time before expressing the view
	Rhythm	non-systematic, greatly varied, interpausal stretches have a marked tendency towards the subjective rhythmic isochrony; the rhythmicality within the block is achieved by the variation of all prosodic parameters
Accentuation of semantic centres	Terminal tones	regular use of falling (high and medium) final and categoric tones, the increase of the range of the nuclei on the semantic centres; occasional usage of level and low rising tones in non-final groups, of emphatic tones (High Fall, Fall-Rise, Rise-Fall) on emphatic semantic centres; high proportion of narrowed tones throughout the responses
	Pre-nuclear patterns	common use of level heads, usually with one accented pre-nuclear syllable and high pre-heads, longer pre-nuclear patterns are not frequent, if they do occur, then sudden wide pitch jumps within the segments characterize them
	The contrast between accented and unaccented segments	great, achieved by the variations in all prosodic parameters

Now by way of opposition of informational monologue — dialogue phonostylistic characteristics we will draw the following conclusions:

1. The structural hierarchy of a monologue is: phonopassages — phrases — intonation groups; whereas the one of a dialogue is: blocks — dialogical units — phrases — intonation groups.

2. There is some distinction between the opposed varieties on the part of segmental features notably in vowel length, voicing and devoicig of consonants, assimilations and elisions, but the phonological differences lie mainly in the use of non-segmental features of basic prosodic configurations.

3. In a dialogue there is a wider range of contrasts in prosodic and paralinguistic effects, thus the danger of misunderstanding is avoided through the introduction of a large number of prosodic contrasts.

4. The attitudes of the talkers are more variable in a dialogue, but, since both analysed forms belong to the informational style, impartiality prevails. Changes in the attitude condition changes in prosodic features. They also condition variations in utterance length. In a dialogue there is a strong tendency to keep them short, to break up potentially lengthy intonation groups wherever possible. The average length of units in the majority of cases falls within the range of 1—5 words. Relatively high proportion of incomplete phrasal segments is noticeable. Phrases are commonly short at the beginning, longer as topics are introduced, longer still as argument develops and short again as the end approaches.

5. In a dialogue the rhythmicality is even more non-systematic, there is no stable pattern of rhythm.

6. The tempo (rate + pauses) in a monologue is normally less varied but in both cases it is conditioned by the importance of information, the fluency of speakers, their familiarity with the topic (theme) and experience in speaking. In general in a monologue less fluent speech is being the expected kind.

Now by way of conclusion we must admit that this is in no sense an absolute description. More and more research is carried out by scholars nowadays, which will bring, we hope, a clearer insight into the essential characteristics of this type of the informational style.

Having determined the "ideal" norm of the style for teachers of English we must say that it is not a factitious one. It is real

and rather common. These carefully pronounced texts are naturally attractive to teachers as their wish is to teach distinct "good" English to their students. As their main interest is in teaching correct accent they surely want to find a clear, slow model for the students to imitate. With reference to the degree of carefulness, with which the sounds are articulated, this type of the informational style may be defined as elaborate.

It is an easy repeatable and an eminently teachable model. It is also valuable in that it ensures that the student copying it will speak slowly and carefully.

We would like to make it quite clear that we are suggesting that this is the most suitable model for teaching the production of spoken English in certain spheres of communication.

Press Reporting and Broadcasting

It has already been stated above that press reporting and broadcasting is a rather complicated non-homogeneous phenomenon and may be very eclectic from the stylistic point of view. It is common knowledge that press reporting and broadcasting is a strong ideological weapon and is surely socially and politically marked. The same text addressed to a foreign listener sounds more imposing and edifying.

The events of political importance can be presented to the public in different lights by using similar techniques, by changing the voice timbre. This only proves the statement that a journalist, a reporter cannot be completely independent in his political views of his class, party, country and so on.

The central function of a newspaper and news bulletin is to inform, to present a certain number of facts to a reader, listener, or a viewer with the effect of giving the impression of neutral, objective, factual reporting. So all types of discourse in that style share some important prosodical features and putting them together in this chapter may not be too misleading.

It should be noted, however, that the speech of radio and television announcers is somewhat different though they use similar techniques in the presentation, the ability to be seen on the screen helps a TV news reader to guide the understanding to the viewer by means of facial expressions and gestures. On the contrary the radio announcer, being isolated in a studio, tends to ex-

aggerate certain prosodic features to be better understood by a listener.

The speech of a radio announcer is very close to the "ideal model" and especially during news coverage when he elegantly enunciates the news in rather chilly distant tones adopted specially for this occasion.

Here is the example of a radio news coverage. The text consists of two items in which national news of a rather neutral character is described:

→ Thirty-five ˌvehicles ‖ 'were in↘volved in a ↑ multiple col'lision ‖ on the ↘M '1 ↘motorway this ˌmorning. || The → accident oc>curred | about ↘three miles 'south of the 'Newsport 'Pagnell ˌservice area | when an ar→ticulated ˌlorry | ↘carrying a 'load of ˌsteel bars | ↘jackknifed and over↘turned. || A ↘number of 'lorry drivers and ˌmotorists || were unˌable to pull up in time | and ran ↘into the overturned ˌvehicle | → causing a ↑major >pile up. ||| ↘Some of the 'steel bars from the >load | were → flung by the ˌimpact | across the ↘central re'serve into the 'southbound ˌcarriageway | which was re→stricted to 'single-lane 'working because of re'pairs and re-surfacing | >causing ‖ ↘several ↘minor ˌaccidents. ||| With ↘both 'carriageways ˌblocked | police ↘closed the motorway for a ˌtime | and di↘version signs were 'posted at the 'nearest ˌslip roads. ||| ↘Breakdown 'vehicles and ˌambulances | had con→siderable >difficulty ‖ in ↘reaching the 'scene of the ˌaccident | because of ↘fog. || This was ˌdense in ˌplaces, | and the ↘flashing 'amber ˌlight signals | had been → switched ˌon ‖ for → most of the ˌnight. || So ˌfar | there are → no re>ports | of ↘anyone 'seriously ˌinjured ‖ in the ˌaccident... |||

At the ↘opening 'meeting in ˌLondon ˌlast ˌnight | Sir → John ˌStone | ... ↘criticised | the ↘standard of 'motorway 'driving in this ˌcountry. ||| He ˌsaid | that there was ˌevidence | that ↘many of the 'basic 'disciplines of ˌmotorway use | had yet to be ˌlearned | by British ˌdrivers. |||

→ Lane ˌdiscipline | was → much worse in this ˌcountry | than

in A\merica || and the \habits of 'drivers when ,overtaking | were par\ticularly bad. || /One 'saw ↑far too much 'dangerous ^pulling out | without an →adequate >signal ⁑ having been ,given... ||

... The \conference 'is con,tinuing. ||| →Now to Common ,Market negotiations... |||

Before going into the detailed description of phonostylistic characteristics of the text we would like to say here that it is delimited in the same way as any monological oral text: phonopassages — phrases — intonation groups. Delimitation is different only in the dichotomy monologue — dialogue. It is also true for the role of contrast between accented and unaccented segments in the accentuation of semantic centres.

Timbre may be characterized as unemotional, dispassionate, reserved, but very resolute and assured, a typical case of a newsreader's "neutral position", deliberately underlying the effect of objectiveness on the part of the newsreader.

Loudness ranges from normal to forte; it is especially varied at passage boundaries. As this bulletin is split into two major items, the transfer from one to the other is very important and is strongly identified by the splash of loudness:

1. ...The conference is continuing. (piano)
2. (forte) Now to Common Market negotiations.

Levels and ranges are usually normal, but contrasted when each news item is introduced and also at the semantic emphatic centres.

Pauses tend to be rather long, especially when they occur between passages, longer still between the bulletin items. The location of pauses is commonly predictable, syntactically or semantically determined.

Rate is not remarkably varied. It is normally slow, rarely allegro; deliberately slow (lento) on communicatively important centres, e.g.

A number of lorry drivers and motorists were unable to pull up in time and ran into the overturned vehicle causing *a major pile up*. (lento) The conference is continuing. (very slow — lentissimo)

Rhythm exhibits a stable pattern.

Types of heads vary, the most common being descending (falling and stepping), very often broken by accidental rises, e.g.

→Thirty-five ˌvehicles ǀ were inˈvolved in a ↑ multiple col'lision ǀ on the ˈM '1 ˈmotorway this ˌmorning. ‖

Another very common for the reading of news coverage phenomenon is the variation of descending and ascending heads of different levels to convey the information in a really interesting way, especially in the enumeration of the events, e.g.

→Lane ˌdiscipline ǀ was →much worse in this ˌcountry ǀ than in Aˈmerica ‖ and the ˈhabits of 'drivers when ˌovertaking ǀ were parˈticularly bad. ‖ ˌOne 'saw ↑ far too much 'dangerous ^pulling out ǀ without an →adequate >signal ǀ having been ˌgiven. ‖

Also the semantic centre of the preceding intonation group may be repeated at the beginning of the next utterance. Lexically it may be the same word or word combination or a related one. This is done to chain the phrases tightly into a phonetic whole (phonopassage). On the prosodic level this close connection is expressed by the use of the Low Rising Tone in the initial intonation group:

At the ˈopening 'meeting in ˌLondon ˌlast ˌnight ǀ Sir →John ˌStone... ‖ ˈcriticized ǀ the ˈstandard of 'motorway 'driving in this ˌcountry. ‖‖ He ˌsaid ǀ that there was ˌevidence ǀ that ˈmany of the 'basic 'disciplines of ˌmotorway use ǀ had yet to be ˌlearned ǀ by British ˌdrivers. ‖‖

One can see here that in the text sentences are not excessively long, they tend not to be unduly complicated in their structure. The intonation groups are rather short, otherwise a listener or a viewer will lose the thread of what is being reported.

Terminal tones are usually final and very categoric, falls prevail on communicative centres. Falling-rising tones (or even Rise-Fall-Rises) are often heard on the initial short intonation groups introduced for deliberate effects in drawing the listener's attention:

A ˈnumber of 'lorry drivers and ˌmotorists ǀ were unˌable to pull ˈup in time... ‖

With ˈboth ˈcarriageways ˌblocked | police ˈclosed the motorway for a ˌtime... |||

The phonostylistic analysis of a reading of a number of news coverage over the radio and television and the experimental data of recent investigations of the style (53, 54) allow us to attempt to draw the invariant of this information style register described in Table 7.

Table 7

The Invariant of Phonostylistic Characteristics of the Reading of a News Bulletin (Press Reporting and Broadcasting)

Timbre		dispassionate, impartial, but resolute and assured; the effect of "chilly distant sounding" (usually achieved by special training of the announcers)
Delimitation		phonopassages — phrases — intonational groups
Style-marking prosodic features	Loudness	normal or increased, contrasted at the phonopassage boundaries
	Levels and ranges	normal; decrease towards the end of the passage; noticeable increase at the start of any new news item
	Rate	not remarkably varied; slow, rarely allegro; deliberately slow (lento) on communicatively important centres
	Pauses	rather long, especially at the end of each news item
	Rhythm	stable, properly organized
Accentuation of semantic centres	Terminal tones	frequent use of final, categoric falling tones on the semantic centres and falling-rising or rising ones in the initial intonation groups
	Pre-nuclear patterns	common use of descending heads (very often broken); alternation of descending and ascending heads
	The contrast between the accented and unaccented segments	not great

Now our next step will be the description of the results of the phonological opposition of phonostylistic characteristics of the reading of an informational descriptive text and a news bulletin.

1. Broadcast texts and newspaper articles read aloud convey mainly the intellectual information as it is the language of factual statements; thus attitudinal and emphatic funciton of intonation is of secondary importance here.

2. The prosodic parameters are not greatly varied in both registers of the style but for several occasions in news bulletins when pitch levels, types of heads and pauses are alternated to break the monotony of speech and draw the listeners' or viewers' attention to something very important in a message. This often happens when events are enumerated. It is a very notable feature here — the ability of good newsreaders to mark the beginning and the end of each new paragraph or topic.

3. The voice timbre is a very important marker of a news coverage reading. It is something peculiar, very easily identified, often labelled as "distant", "indifferent", "impartial", "neutral". It is true, of course, for events of a routine character. When tragic events are broadcast, for instance, all the prosodic features are switched to convey the meaning.

4. In the "news bulletin reading" type of the informational style the use of broken descending heads and fall-rises on initial intonation groups is more common.

5. Pauses tend to be longer, the general tempo is faster than that in the descriptive reading.

6. The "broadcast" reading is more properly rhythmically organized. Highly skilled newsreaders are capable of making the sense clear by the careful control of rhythm.

Now for the conclusion we would like to say that we have described here only one type of the "language of broadcasting" register, which is close to the "ideal" informational descriptive text.

All other suggested spheres of discourse — talking on events over the TV, talking to a listener, discussing the political events, commenting on them, round-table talks of commentators, and others — do not differ greatly from those, described above in the models of the first (descriptive) register. Or they may drift very far from it, become very chatty or high-flown and indulge in sudden changes of the style. For this reason it is much harder to say with certainty what the main style characteristics of such

texts are. They will vary according to the type of the information involved: intellectual, attitudinal or volitional.

And the placement of these texts in the system of intonational styles should be approached with caution in mind.

As there is much stylistic freedom in broadcast talks it is difficult to make general statements, give their generalized phonostylistic characteristics with any confidence. There are many broadcast talks with an effort to communicate in a reasonably lively and personal manner. As a consequence they may be rather racy and have more varied prosodic characteristics and stylistic qualities than a news bulletin while resembling it in many respects. This is undoubtedly a very interesting and promising field of investigation and much is expected from the researchers in the nearest future.

2. Academic Style

This intonational style is often described by phonostylists as both intellectual and volitional. It is determined by the purpose of the communication as the speaker's aim is to attract the listener's attention, to establish close contacts with the audience and to direct the public attention to the message carried in the contents of the text. It is frequently manifested in academic and educational lectures, scientific discussions, at the conferences, seminars and in classes. As the users of the style are interested in the involvement of the audience into the talk, this intonational style tends to be concerned and rather emotional.

The above-mentioned spheres of discourse have many features in common which result from certain common influences even though they may have differences according to the speaker, the occupation of the language user, the exact nature of the occasion, etc.

It can be suggested here that the most pure manifestation of the academic intonational style is realized in a lecture, though a "lecture" is a very broad label which covers a variety of types. Lectures may sometimes sound as oratorical performances designed to entertain rather than inform, so there may be a great deal of overlap in these cases between different registers.

We would like to mention here that the "ideal model" of the scientific style talk would be an academic informational lecture

read aloud or relied heavily upon the set of notes with the attempts on the part of lecturers to get their meaning across clearly. The balance between formality and informality is obtained in favour of the former.

The types of this style realization are not so varied as of the informational intonational style though the spheres of discourse are rather numerous (see Table 8).

Having outlined the contours of the style we shall focus our attention on academic lectures or pieces of scientific prose.

It is almost certainly true that no public lecture is ever spontaneous, since all of them, even those in which no notes are used, will have been to some extent prepared in advance and therefore represent the written variety of the language read aloud. So they have very much in common with the reading of scientific prose.

As was already pointed out above, lecturers either read the whole of what they wish to say from a script or speak with the aid of the notes; and as reliance upon a written version increases the impression of spontaneity will decrease.

Here is the example of a carefully prepared lecture read aloud in public addressed to a fairly-sized audience.

You will ˈall have ˈseen from the ˈhandouts ‸ which you have in ᵛfront of you | that ᵒI proˈpose to diˈvide this ˈcourse of ᵛlectures ‸ on the ˈurban and archiˈtectural deˈvelopment of London | into ˈthree ˈmain ˌsections ‖ and per>haps ‸ I could ˈjust ˈpoint ˈout, ˈright at the beˌginning, | that there will be a ˈgood ˈdeal of ˈoverlap beˌtween them. ‖ They are in→tended to >stand | as ˌseparate. | → self-contained ˌunits. ‖| InˈdeedˌI ‸ would ˈgo as far as to >say | that ˈanyone ‸ who ˈtried to ˈdeal entirely ˈseparately with the ˌpast, | the ˌpresent | and the ˌcourse of deˈvelopment in the ᵛfuture, | would be ˈmisrepreˈsenting the ˈway in which ˈurban ˈgrowth takes ˌplace. ‖

Now by → way of introˌduction, | I'd ˈlike to ˈtry and ˈgive some indi>cation | of ˈhow ˈLondon it'self oˌriginated; ‖ of ˌwhat deˈvelopmental ˈtrends were built ˌinto ˌit, as it ˌwere, ‸ from the → very ˌoutset, | and of how → these >trends ‸ have af→fected its ˌgrowth. ‖

Academic Style Suggested Spheres of Communication

Written variety of the language			Spoken variety of the language											
Monologue		Dialogue	Monologue				Dialogue				Polylogue			
Public		Public	Public		Non-public		Public		Non-public		Public		Non-public	
Prep.	Spont.	Prep.	Prep.	Spont.	Prep.	Spont.	Prep.	Spont.	Prep.	Spont.	Prep.	Spont.	Prep.	Spont.
the reading of lectures or scientific reports in public, over the radio or television	the reading of examples in answers at conferences or in interviews	—	scientific talks and explanations at seminars and classes	explanations at seminars, answers in the interviews, at conferences	answers at examinations	answers at examinations	interviews in TV studios	interviews, talks at scientific conferences, congresses	talks at examinations, at scientific conferences	interviews, talks at examinations, at conferences, meetings	discussions over the radio and TV discussions at conferences, at seminars	discussions at conferences, congresses, seminars, in TV studios	—	discussions at congresses, conferences

It →started of,course, | not as ˌone, | but as ˌtwo cities. || The ˌRomans built a ˋbridge a'cross the >Thames | at a ˋpoint where the 'estuary was 'narrow e'nough ; to ˋmake it a 'practical 'propoˌsition | and the en→campment asˌsociated with this ₒbridge | ˋgrew 'up on the 'north 'bank of the ˌriver.

The →principal ˌfort of this enˌcampment | was ˋon the 'site now 'occupied by the ˌTower. ||| →Further to the ˌwest, | at a ˋpoint where the 'river was ˅fordable, | an ˋabbey | — the →Abbey of ˌWestminster — was ₒfounded | and the ˋtwo 'towns 'grew 'up ₒside by ˌside | — ˌone centred on the ˅Roman camp, | and the →other on the ˌAbbey. |||

→Now in my ˌnext ˌlecture | I ˋhope to 'demonstrate in ˅detail | that ˋthis 'state of af˅fairs | — this double ˅focus ; as we might ˌcall it | was of ˋcrucial im'portance for the 'subsequent 'growth of London as a ˌcity. ||

This is a public lecture about the growth and development of London addressed or rather read aloud to a fairly-sized audience. The lecturer is evidently a specialist on the subject, therefore he sounds very self-assured and comfortable with the subject, rather knowledgeable about the topic. The purpose of the lecturer is to inform rather than entertain, his aim is to deliver a message across to the audience, to win the attention and interest on the part of the listener, to establish a contact in a specific and fully premeditated way.

The result of the audience control may be seen in the tendency to adopt "rhetorical" forms of speech in which the listeners are addressed or questioned directly so as to persuade them that they are in contact with the speaker and to get them more readily round to his way of thinking:

I'd like you to consider what happened as the two towns began to expand. What do you think the main consequences of the expansion were?

To guide understanding and control the audience the speaker outlines the points he is going to lecture about, uses all sorts of phrases to clarify his position and underline each new item in the text:

You will all have seen from the handouts which you have in front of you that I propose to divide this course of lectures on the urban and architectural development of London into three main sections and perhaps I could just point out, right at the beginning that there will be a good deal of overlap between them.

Indeed I would go as far as to say...

Now by way of introduction I'd like to try and give some indication of...

Now in my next lecture I hope to demonstrate in detail...

The relationship between the lecturer and the public is on the whole rather formal, the degree of formality is not varied, though he sounds enthusiastic about what he says.

The text is delimited in the way specific for any monological presentation.

The analysis of the prosodic characteristics of the text and reports on the recent research carried out in this field in the present instance allow us to conclude that this type of the scientific intonational style (lectures, reports, explanations, interviews, etc.) is generally characterized by the parameters described in Table 9.

We would like to specify here that a certain amount of variation is a must when we perform within the register of scientific discourse, but a lecturer should keep himself (or herself) from going to extremes, otherwise he will use patterns of a different style (publicistic or declamatory, for instance) and we will witness the fusion of many styles.

Now our next procedure will be the phonological opposition of the reading of an academic lecture and a descriptive text prosodic characteristics.

As a result of the comparison we would like to describe here specific characteristics of the academic style which display features not shared by others.

1. A scientific (academic) text read aloud in public in front of a fairly-sized audience conveys both intellectual and volitional information, so the attitudinal and emphatic functions of intonation are of primary importance here.

2. A lecturer always sounds self-assured, authoritative, instructive and edifying, because any scientific style talk should be well prepared and is often even rehearsed by a trained lecturer.

Table 9

The Invariant of Phonostylistic Characteristics of an Academic Style Reading

Timbre		authoritative, imposing, edifying, instructive, self-assured
Delimitation		phonopassages — phrases — intonational groups
Style-marking prosodic features	Loudness	increased, sometimes to forte
	Levels and ranges	remarkably varied with the passage segments; gradual decrease within the supraphrasal unity
	Rate	normal, slow on the most important parts of the lecture (rules, conclusions, examples); rate is as flexible as the lecturer wishes it to be
	Pauses	rather long, especially between the phonopassages; a large proportion of pauses serving to bring out communicatively important parts of utterances; occasional use of breath-taking pauses
	Rhythm	properly organized, especially while giving the rules, reading the laws, drawing conclusions, etc.
Accentuation of semantic centres	Terminal tones	high proportion of compound terminal tones (High Fall + Low Rise; Fall-Rise, Rise-Fall-Rise); a great number of high categoric falls
	Pre-nuclear patterns	frequent use of stepping and falling heads; alternation of descending and ascending heads, especially in enumerations
	The contrast between the accented and unaccented segments	not great

3. A scientific style talk presenter sounds much louder than an informational style reader as any public oration is produced face to face with a fairly-sized audience. Instances of diminished loudness are observed only in bringing out phrases expressing forgetfulness, uncertainty, word-searching.

4. The prosodic features of the academic style reading are rather varied as intonation correlates the lecturer's attempts to

get his meaning across clearly and to obtain the balance between formality and informality. This variety is created by:

a) The alternation of pauses, types of heads, pitch levels and terminal tones.

b) The ample use of variations and contrasts of the tempo to help the listener to differentiate between the more and less important parts of the overall flow of speech. The speaker normally slows down when he introduces rules, terms, scientific laws, etc. This makes them stand out.

5. The rhythmical organization of a scientific text is properly balanced by the alternation of all prosodic features which gives the acoustic impression of "rhythmicality".

6. High falling and falling-rising terminal tones are widely used as a means of both logical and contrastive emphasis.

Now in conclusion we would like to say that when we perform within the academic (scientific) intonational style a certain amount of variation of all phonostylistic characteristics is a must to achieve the goal of communication, but care should be taken not to overdo this. If a segment is overloaded with contrasts of tempo, loudness and pitch and the speaker uses all sorts of "oratorial tricks", then it means that the lecturer performs in a different style with appropriate prosody and we have the transposition from one style to another.

We have described in this chapter only one register of the academic style. Unfortunately other spheres of discourse and intercourse in this style have not been fully investigated yet; so this field for experiments is still open and awaits its investigators.

3. Publicistic Style

The term "publicistic" serves for many kinds of oratorial activities, that is why this intonational style is often called "oratorial". It is a very broad label because there is a great deal of overlap between academic, publicistic and declamatory style when the basic aim of the speaker is to extend persuasive and emotional influence on the listeners and, of course, volitional and desiderative information is predominant in the texts. But in publicistic speeches it is achieved not only through argumentation as in the academic style or imagery as in the declamatory style, but

through all sorts of direct oratorial performances. These performances are designed to entertain the public thus accomplishing the purpose of imposing the speaker's ideas on listeners.

This is especially noticeable in public political speeches of some politicians whose appeals to the nation are overloaded with all sorts of oratorial tricks and characterized by various contrasts in all prosodic features to produce a complex vocal effect, thus making addresses more effective.

So publicistic style is commonly called by phonostylists **volitional** and **desiderative**. Its manifestation can be heard in political, judicial, oratorial speeches, in sermons, parliamentary debates, at congresses, meetings, press conferences and so on. We will admit here, however, that this style will be outlined here very briefly, since would-be teachers of English will not use it actively in their teaching experience and need it only for comprehension.

It has long been believed that oratorial skills need special training. Therefore special schools of public speech makers, of professional training were established throughout the centuries and all over the world. It is evident, of course, that intonation has always been of primary importance there and surely needed accurate training and exaggeration to achieve excessive emotional colouring. The use of prosodic contrasts makes the speaker sometimes go to extremes and become needlessly dramatic.

Another important feature of publicistic style speeches is that they are never spontaneous. It is generally accepted that any professional talk is a "voyage", and it should be charted, but it is strongly advisable not to use notes during the speech performance because they destroy the listener's interest and the ideas, suggestions and illustrations of the speaker will not come drifting to the audience. Thus it should be borne in mind that a publicistic speech is mostly always written but rehearsed and read aloud, cultivating, however, the apparent spontaneity to avoid the impression of complete preparedness.

As was stated above, the purpose of oratorial exercises is to stimulate, inspire the listeners, to arouse enthusiasm in them; so the kinesic accompaniment — facial expressions, bodily movements, gestures — is extremely important and assists to achieve the task, to put heart into the talking. On the other hand, the proper response of the audience inspires the speaker and stimulates him for an ever more successful talk.

One would always expect a political and judicial speech to be

given in a forceful and lively manner because the effects of failing to be convincing is likely to be severe for speakers, politicians and judges especially. Consequently they use a great variety of generally accepted for this register grammatical constructions, lexical means and intonation patterns, which identify texts as belonging to this type of speech.

These features are absolutely predictable because they are markers of this style. For example, a very notable and common stylistic feature used here is parallelism — the repetition of syntactical, lexical and prosodic structures.

Basically political speeches, addresses of Governments tend to be very formal, so a great number of "high-flown" phrases, set expressions are common to this type of the style as is seen from an imaginary political speech taken as a model from the Advanced English Course:

The time has almost come, ladies and gentlemen, when the Government must ask you — the electors of Great Britain — *to renew its mandate*. It is as a member of the Government that *I stand before you this evening, and the task I have set myself* is to review many things which the Government has achieved since the last General Election and *to outline the path* which we hope to follow in the future, when, as I am confident will be the case, you return us to office with an even greater parliamentary majority.

No one will deny that what we have been able to do in the past five years is especially striking *in view of the crisis* which we inherited from the previous Government. With wages and prices spiralling upwards; with a record trade deficit of hundreds of millions of pounds, and with the pound sterling afflicted by the evaporation of international confidence the country was then *on the brink of financial disaster and economic collapse...*

It should be noted here, however, that in publicistic speeches of other kind — speeches of famous writers, public figures, peace fighters and so on there may be deviations from formality and a contrast is often to be seen between the highly formal and rather ordinary and in some instances even colloquial language, when various illustrations, examples, comparisons, jokes, quotations are produced. So a good speaker is aware of a proper balance between intelligibility, pronounceabiliiy, relative dignity, formality and informality.

Having outlined briefly the spheres of the publicistic style manifestation we would like to concentrate now on the phonos-

tylistic characteristics of a publicistic speech. Recent research in this field allows us to generalize certain prosodic configurations as applied to this register. These results are presented in Table 10 (p. 225).

Now, following the general scheme of a style description, we would like to describe the results of the opposition of a publicistic intonational style text and an academic lecture. We have chosen a lecture for the comparison because there are certain similarities and overlaps between these registers. The results of the opposition show that the differences which exist between these two types of public speaking are more striking than the similarities.

Public oratorial speeches are so removed from everyday informational narratives and so vividly marked on the grammatical, lexical and prosodic levels that are immediately recognized by listeners and labelled as oratorial skills and exercises.

As there is a very strong concern on the part of the speaker about the effects achieved by his speech on the listener, the former uses all kinds of oratorial performances which on the prosodic level are characterized by the incomparable variations and contrasts within the systems of pitch loudness, tempo and timbre accompanied by kinesic components.

These prosodic contrasts, very expressive facial mimics and gestures identify certain oral texts as belonging to publicistic intonational style.

It is undoubtedly clear that volitional and emotional function of intonation is predominant in this register against the background of other functions.

As any publicistic speech is fully prepared and even rehearsed, it usually goes smoothly and with ease, without hesitation devices. It is marked by its dignified slowness, careful articulation and impressive resonance on the most important communicative centres and properly rhythmically organized. Of course, it is not always uniformly so. Occasionally a speaker may drift from the register and sound less formal or even chatty or needlessly dramatic. On such occasions the speaker tries to entertain the public and the speech is characterized by markers of declamatory, academic, informational or conversational styles. There are speakers who confess to a fierce prejudice against the discourse in a particular style only. They usually vary the registers thus achieving certain influential results. A certain amount of style variations is a must when we perform within publicistic discourse.

Table 10

The Invariant of Phonostylistic Characteristics of Publicistic Oratorial Speeches

Timbre		dignified, self-assured, concerned and personally involved; a variety of attitudinal and modal expressions in the voice
Delimitation		phonopassages — phrases — intonation groups
Style-marking prosodic features	Loudness	enormously increased, ranging from forte to fortissimo; sometimes instances of diminished loudness are observed to bring out words and phrases of paramount importance and produce certain psychological effect
	Ranges and levels	greatly varied; the predominant use of wide ranges within the phonopassage; a very high level of the start of the initial intonation groups
	Rate	moderately slow; the public speaker slows down to bring out communicatively important centres; less important information entails acceleration of speed
	Pauses	definitely long between the passages; a great number of breath-taking pauses; pausation is commonly explicable in semantic and syntactic terms; interpausal segments are rather short, thus phrases may be overloaded by pauses of different length; another characteristic feature of this register is a rather frequent stop of phonation before the emphatic semantic centre; it serves as a means of bringing out words and phrases; voiceless hesitation pauses occur to produce the effect of apparent spontaneity, "rhetorical silence" is often used to exert influence on the public
	Rhythm	properly organized; within the speech segments rhythmic groups have recurrent alternation, which produces the acoustic effect of strict rhythmicality
The accentuation of semantic centres	Terminal tones	mostly emphatic, especially on emotionally underlined semantic centres; in non-final intonational groups falling-rising tones are frequent; terminal tones are contrasted to distinguish between the formal segments of speech and less formal ones (illustrations, examples, jokes, and so on)
	Pre-nuclear patterns	common use of the descending sequence of stressed syllables; a large proportion of falling and stepping heads, frequently broken by accidental rises to increase the emphasis; another common "rhetorical trick" is the tonal subordination when semantically and communicatively important intonation groups contrast with their neighbours by all prosodic features; so the high level head may be alternated with the low level head, especially in enumerations
	The contrast between accented and unaccented segments	not great
	Paralinguistic features	a great number of paralinguistic effects, kinesic components — facial expressions, bodily movements, gestures — subjected to the main purpose of the publicistic discourse: to influence the audience, involve it into the talk and to exert the expected response from it

Publicistic speakers are usually very enthusiastic about what they say and how they say, so they may go to extremes by enormously increasing the loudness and alternate it with whisper or by pronouncing very long breath groups and suddenly interrupt the phonation by using the rhetorical silence. These and other prosodic contrasts produce great effects and captivate the attention and interest of the listener.

The greatest single stylistic characteristic of publicistic speeches is the large amount of parallelisms on any level, prosodic features including.

All the above-mentioned general characteristics serve to produce a complex vocal effect called "oration", designed to make the listeners respond to the publicistic speech-maker. So a clear phonological distinction can be drawn between this intonational style and others in terms of markedly different prosodic structures but there is no clear boundary between certain types of lectures, publicistic speeches and declamatory performances.

We have tried to describe here only one register of the style. There are certainly other spheres of discourse — spontaneous speeches at the meetings, debates, theatrical oratorial procedures at parties, anniversaries and so on. They will certainly differ greatly on the prosodic level, but the volitional function of intonation, expressed by the contrast of all prosodic parameters, will always be in the foreground and mark the publicistic style.

4. Declamatory Style

This intonational style is also called by some as "artistic, acquired or stage". As we see from these labels, the scholars suggest that this is a highly emotional and expressive intonational style, that is why it needs special training. Attitudinal, volitional and intellectual functions of intonation are of primary importance here and serve to appeal to the mind, will and feelings of the listener. Most commonly it is performed through all sorts of image-bearing devices which require rehearsing and professional skills. This intonational style can be heard on the stage, on the screen, in a TV studio or in a classroom during verse speaking and prose readings and recitations. Thus we see that it is always a written form of the language read aloud or recited.

However, it should be claimed here, that it is a very hard la-

bour to give a detailed description of the stage speech in this book as it is the stylization of all speech styles, especially conversational. Conversations on the stage tend to be meant quite familiar, but, addressed to the spectators, they produce an exaggerated, most striking elements especially in the fields of such prosodic parameters as loudness, rate and range and could be immediately spotted by listeners as "stage speech" characteristics.

The prosodic organization of such texts will vary greatly, depending on the type of the theatrical performance — whether it is a tragedy, drama or comedy — and, of course, on the social factors — the social and cultural background of the play characters, their relationship, extralinguistic context, and so on.

Acting is a two-way conversation, players respond very directly and promptly to the "feedback" they get from the audience; the "feedback" in their case being almost certainly communal, collective, non-verbal language. Methods of achieving, stimulating and maintaining this "conversation" with their audience must inevitably be the mainspring of the actors' "training".

To feel, to know, even to express the contents of their drama is a wasted and futile activity if it is not conveyed to other participants — the audience. Distancing, posture, gesture, facial expression and timing — all these facets of their art are as important as the delivery of words themselves.

It is a vast area for investigation and description but we would like here to restrict the field of analysis to the types of the register needed in class for would-be teachers of English. Obviously they are prose reading and verse recitations. The latter was described above under the heading "Rhythm".

So we confine ourselves to the prose reading here. We think we have to be clear that to the declamatory style reading we refer only certain literary (fiction) texts appealing to the readers. The reading of informational and scientific prose has been already described in the previous sections of the chapter. Though there are many things in common, as any reading aloud suggests, the predominance of emotional function in the artistic reading separates this kind of reading from others in a fundamental way.

The declamatory reading displays a great variety of intonation property as regards to the types of written texts. There is almost endless variety in the way writers express themselves; but no matter how pleasurable the way of writing may be, meaning al-

ways comes first. In each case style, the way something has been written, must be adapted to suit the subject matter.

It is common knowledge that prose, which describes an action or a series of actions to tell a story, is called **narrative**, e.g.

Though it was nearly midnight when Andrew reached Bryngower, he found Joe Morgan waiting for him, walking up and down with short steps between the closed surgery and the entrance to the house. (*A.J.Cronin*. The Citadel)

The prose is **descriptive** when scenes, objects, people, or even a person's feelings are described in such a way that we can imagine them vividly. In good descriptive writing an author builds up a picture in words in much the same way as an artist paints a landscape or a portrait, e.g.

We got out at Sonning and went for a walk round the village. It is a most fairy-like little nook on the whole river. It is most like a stage village that one builds of bricks and mortar. Every house is smothered in roses and now, in early June, they were bursting forth in clouds of dainty splendour... (*Jerome K. Jerome*. Three Men in a Boat)

In order to appreciate a prose passage it is not enough to understand its meaning: it is necessary to grasp the author's intentions and the means he has employed to fulfil them. In a sense good narrative and descriptive prose have much in common with poetry. The writer need not always have an audience in mind. His aim is to tell a story or describe a scene as well as he can. The "devices" that occur arise from the prose itself and are, as it were, coincidental with this main purpose.

It is desirable, of course, before reading aloud to appreciate the written text. For this one should firstly read the passage carefully without worrying over the meaning of a few difficult words. Then, while reading it, pay close attention to the sequence of events described, or to the stages which lead to the main event. See if the writer gives reasons why the event or events described occurred. When you have read a prose passage carefully you should be in a position to pause a little bit and try to realize general meaning, a detailed meaning and be able to define the intentions of the writer and state why you have liked or disliked what you have read.

What makes a story a pleasure to read is usually the writer's

way of telling it. The way scenes and people are described, the way the characters think, talk or act are quite as important as the events themselves and contribute largely to our enjoyment. When appreciating the prose it is necessary to understand how these qualities or devices help a story to develop and how they add colour to it.

One should also bear in mind that any story is a unity, though divided into passages. It is very important to understand how pieces of narratives are put together. A reader responds to a text, its linguistic clues (internal evidence), but also to situational clues (external evidence). In responding to a text a reader usually takes into account all he knows of the environment: what is going on, who is involved as well as what part language is playing.

Evidently the next step will be to delimit the text, to break it into phonopassages that may not coincide with the written passages. Then the passage should be split into phrases, the latter into intonation groups. The most necessary procedure, of course, is to underline the communicative centres in each group and think what prosodic features are preferable for expressing the meaning and the emphasis.

A writer helps his characters to come alive not only by describing the way they act but by letting us hear them speak. Thus a continuous prose is interrupted by a dialogue. Effective dialogue enables the reader to feel that he is actually witnessing what is going on.

Dialogic texts are author's reproduction of actual conversation and in reading aloud a reader should bear in mind the characters of the speakers, their social background and the atmosphere, the environment, in which the conversation takes place.

The author sometimes provides us with clues as to how the speech of the characters should be interpreted, e.g.

He came into the room to shut the windows while we were still in bed and I saw he looked ill. He was shivering, his face was white, and he walked slowly as though it ached to move.

"What's the matter, Schatz?"

"I've got a headache."

"You'd better go back to bed."

"No, I'm all right."

"You go to bed. I'll see you when I'm dressed."

But when I came downstairs he was dressed, sitting by the

fire, looking a very sick and miserable boy of nine years. When I put my hand on his forehead I knew he had a fever.

"You go up to bed," I said, "you're sick."

"I'm all right," he said.

When the doctor came he took the boy's temperature. (*E.Hemingway*. A Day's Wait)

The conversations are strikingly different in style and for their characteristics see corresponding sections of the chapter. We must mention here, however, that most literary texts comprise descriptions, narrations and dialogues.

The experimental data of the research works on the declamatory reading (26, 43) allow us to say that its prosodic organization depends on the type of the literary text — descriptive, narrative, dialogue; on the character of the described events, schemes and objects (humorous, tragic, romantic, dreamy, imaginative and so on) and of course on the skills of the reader. But it is always clearly marked and distinguished by its expressiveness, personal involvement on the part of the author, by the emphasis, by the entire range of prosodic and paralinguistic effects and it is all felt through the skilful reading (see Table 11).

We would like to comment on the use of terminal tones in initial and non-final intonation groups. The views of phoneticians differ here. G.Pinayeva, for example, claims that the Low Rise now loses its connective function and gains the emphatic one. Subsequently the falling-rising tone becomes more and more connective (26).

Other scholars write that the most typical nuclear tone used for the connection in non-final groups is the non-final low falling or the midlevel tone. Evidently the solution lies in new experiments and the analysis of the experimental data. We will try to suggest, however, that the choice of the terminal tone in non-final intonation groups is determined by the emphasis. The expressive reading suggests the Low or Medium Fall rather than the rising tones:

\As it was 'nearly ,midnight || when \Andrew 'reached ,Bryngower... || At the \sight of him || the \burly 'driller's 'face ex'pressed re,lief. ||| (*A.J.Cronin*. The Citadel)

The Invariant of Phonostylistic Characteristics of the Declamatory Prose Reading

Timbre		concerned, personally involved, emotionally rich
Delimitation		phonopassages — phrases — intonational groups
Style-marking prosodic features	Loudness	varied according to the size of the audience and to the emotional setting
	Levels and ranges	variable
	Rate	deliberately slow, necessitated by the purpose of the reading: the complete understanding of the author's message by the listener; changes in the speed of utterances are determined by the syntactic structures, importance of information and the degree of emphasis
	Pauses	long, especially between the passages. Disjunctive pauses tend to be longer than connecting ones. Internal boundary placement is always syntactically or semantically predictable. A declamatory reading is distinctly marked by a great number of prolonged emphatic pauses — the device used by the reader to underline the emphasis
	Rhythm	properly organized, the isochronic recurrence of stressed and unstressed syllables
The accentuation of semantic centres	Terminal tones	common use of categoric low and high falls in final and even initial intonation groups and on semantic centres; occasional use of rising and level tones to break the monotony and in initial groups to connect segments of the phrase, to lead the listener on the later developments
	Pre-nuclear patterns	varied, contain patterns which have both common emphatic and non-emphatic usage; for the emphasis the following patterns are most frequently used: Low Head + High Fall High Head + Low Fall High Head + High Fall Stepping Head + High Fall
	The contrast between accented and unaccented segments	not great

Our final procedure will be the phonological opposition of the informational and declamatory reading.

The opposition shows that both readings differ totally in any aspect, but primarily in the voice timbre — in the declamatory reading the emotional colouring of the voice is very rich, varied according to the degree of emphasis.

On the prosodic level the markers of the declamatory style reading are:

1. Slow tempo, caused by the lento rate of utterances and prolonged pauses, especially at the passage boundaries.
2. Stable rhythmicality.
3. The use of the falling terminal tones in initial intonation groups, the increase of their range with the emphasis.

Now by way of conclusion we would like to say that we have made an attempt here to describe one type of the declamatory style reading, which we claim to be valuable for teachers of English.

Of course, there are as many specifications in the reading as there are authors, script-writers, actors, verse-reciters, fable readers and so on, but the lack of space in this book does not allow us to go into more detailed analysis. Language teachers should pay a great deal of attention to the expressive declamatory reading as it enables written literature to be accessible, to broaden the pupils' and students' horizons, to show them the subtleties of the author's intentions, to unlock his secrets and pave the way to something new, something different.

5. Conversational Style

The aim of this section is to analyse variations that occur in natural spontaneous, everyday speech. It is the most commonly used type of intonational style and consequently a variety which will be more familiar to the vast majority of English-speaking people than any other. That is why it is called familiar. This kind of English is also a means for everyday communication, heard in natural conversational interaction between speakers. So phonetic stylists call it conversational. Some scholars also call it informal, because this style occurs mainly in informal external and internal relationships in the speech of relatives, friends, well-acquainted people and so on.

In informal situations, where speakers are more relaxed, less attention is given by them to the effect they produce on the listeners, because, as it has already been mentioned, in formal situations they monitor their linguistic behaviour, perhaps sometimes unconsciously. But in everyday life a more natural and spontaneous style will be used. It is the style at the extreme informal end of the stylistic linear continuum that is known as "vernacular" (48). Thus all speakers have a vernacular style but its variations in the use of non-standard norms depend on the social background. In this style variation will be at its most consistent level. It is the most situationally influenced kind of English. From pedagogical viewpoint this English seems to be one of the most useful and least artificial kinds of the language to teach foreign learners.

We would also point out here that in conversational style the emotional reaction to the stimulating speech signals is very important so the attitudinal function of intonation here comes to the fore. Therefore one is liable to find here a wider range of contrasts at any level than could be expected elsewhere. We have already outlined specifications of different types of dialogues, classified them according to the degree of formality, so here we will attempt to gain some insight into everyday conversations. We are now to further our understanding of subtleties in variations of this type of English and provide a valid description, we hope, on all linguistic and extralinguistic levels.

Conversations are one of the most complex forms of human behaviour. One starts to examine in depth even apparently trivial conversations, the complexity soon becomes obvious and, as with most other aspects of language study, new dimensions to the study appear.

Clearly, a conversation consists of more than verbal language. Communication, to be effective, relies on other features than language and a great deal on that is not said. A measure of common understanding has to exist between speakers. Where this common understanding is lacking, failures in communication are apt to occur.

In a conversation we do not just listen to words, we derive the meaning consciously or unconsciously from a number of other communicative systems and it could be that a lift of an eyebrow, a twitch at the side of the mouth, or a silence tell us more than a dozen sentences.

But undoubtedly the verbal part of the communication plays

a very important role and has its own systems too but only linked with other effective ways contributed by the speakers. The full effect is achieved and meanings are exchanged even with strangers and about unfamiliar topics.

So to study conversational interactions means to study some of the "rules" of non-verbal behaviour in relation to particular cultures and societies and also to study the linguistic rules governing the talks. Both types of study are still in relatively early infancy and the study of the relationship between them is even less advanced. At the present moment it seems we just do not have the tools, the methodology to cope with the linguistical, psychological and sociological complexities of interaction simultaneously, at least with the rigour and scientific objectivity that the social sciences like to set as their target. Thus any piece of research is likely to lean heavily on either linguistics, psychology or sociology, and to run the risk of ignoring, or at least giving insufficient weight to other factors.

Another complexity in carrying out researches in this type of speech lies in the procedural difficulties of obtaining reliable data. It is well-known that most people behave differently if they are aware of being tape-recorded, but unfortunately linguists cannot analyse everyday language without making tape recordings first.

So of course the recorded samples of spontaneous informal conversations are not quite reliable. The only safe way of obtaining data is through the technique of "surreptitious" recording. However, the transcript of these talks doesn't show non-verbal means of communication — postures, gestures, facial expressions, manners and other superficial manifestations which constitute the so-called "silent language" of people. With the invention of "Video" one can easily solve this problem and the fieldwork procedures using it will be able to achieve quite realistic, objective data and investigate the phenomena in all its complexity and unity.

Unfortunately, in this book we rely only upon the tapescripts of everyday informal conversations recorded for English textbooks.

Spontaneous, colloquial, informal conversations display certain common linguistic characteristics.

1. Firstly, talks of this kind are characterized by the inexplicitness of the language as the speakers rely very much upon the

extralinguistic factors — context, kinesics, etc. This manifests itself in "incompleteness" of many utterances as the context makes it clear what was meant by the speaker, thus making redundant its vocal expression:

Jane: Well... maybe, but... take responsibility; the... the... you don't need as great a sense of responsibility for you... your kind of work as you do in teaching — all those children, all those parents...
Brenda: No, but you do have your... your... your colleagues at work — you have a certain amount of responsibility to them.

Sometimes the speakers even abrupt the speech suddenly and tail off into silence but the listeners understand them, catch the meaning, because the participants have a common personal background and the explicitness is tolerated or even taken for granted and is diagnostic of conversation. Occasionally, the listeners request recapitulation by all sorts of repeated and echoing questions:

Richard: Well, I'm going tonight in fact.
Jane: Tonight? Oh, are you?
Richard: Yes, most nights really.

2. Secondly, conversations are characterized by the lack of planning and the randomness of subject matter. They are very often unpredictable, not guided to an overall theme as, for example, in our first conversation.

This is the most changeable variety of the language. It is, however, true that in many everyday communications certain semantic blocks are commonly repeated. For instance, the stereotyped exchange of greetings, partings, pleasantries, making acquaintance, starting the conversation, arresting attention, making contacts and so on.

One can easily spot phrases of speech etiquette functioning in colloquial talks such as questions to keep the conversation going, asking for information, expressions leading up to questions, polite formulas for attracting attention, requesting, agreeing and refusing, expressing gratitude and others. These devices and opening gambits are very helpful for speakers to build up a conversational unity and are used by native speakers mechanically. For foreign learners, however, they should be taught in an appropriate order to help them to control and handle the speech.

3. The third general feature of the conversational style talks is "non-fluency". Informal spontaneous conversation is characterized by a high proportion of "errors" involving hesitation phenomena, slips of the tongue and all sorts of overlapping and simultaneous speech:

Bob: I think I'd much prefer to go in for teaching.
Jane: Jolly good! } (simultaneously)
Bob: Because ... er ... well, you get long holidays. }

The distribution of hesitancy is very significant, it is strongly influenced by creative thinking and produces a cyclic pattern. They are of primary significance, the avoidance of hesitation devices and "errors" may produce a wrong effect and lead to a different type of speech style.

Some more important characteristics should be mentioned here. Entire range of vocalic clusters, sounds, non-verbal signals are common in conversations, e.g. *mmmm*, *sshh*, *ah*, *brr*, etc.

Also, one can hear whistles, laughs, giggles, clearings of the throat, snorts and sniffs.

The observation of "Videos" shows us the behaviour of speakers during the conversations. In every society there are specific rules governing the conduct of conversation. Some of these tactics are verbal, others non-verbal, most are culturally determined, some make individual use of cultural habits and expectations. Together with the "silent language" (posture, gesture, facial expression and manners) the space between the speakers also plays an important part in communication. It is a measure of how intimate or otherwise the speakers feel, how formal or informal their relationship is.

A "nose-to-nose" distance of 1,5—2 metres is considered to be most comfortable for talks and anything nearer than this may be unwelcome if the other is not regarded as an intimate. Of course the "silent language" has significance at deeper levels and in more complex ways than that exhibited in gesture or postural language. There are more message systems but they are not fully investigated yet.

On the grammatical level informal conversation provides delimitation of utterances and sentences. The length of utterances is much more variable here than in any other variety of English. Changes in modality and status condition variations in utterance length. There is also a problem of delimiting sentences from each

other as our conversations are characterized by a large number of loosely coordinated clauses and it is very difficult to decide whether to take these as sequences or as compound sentences, e.g.

Jane: Well,... maybe, but... take responsibility for your kind of work as you do in teaching — all those children, all those parents...

D.Crystal suggests to refer to such a feature without using the term "sentence" at all, talking instead of clause complexes. (54)

Minor sentences are extremely frequent in responses, many of them are incomplete. There are a few other points to be noted on the grammatical level:

1. High proportion of parenthetic compound types of sentence introduced *by you see, you know, I mean, I say* and others.
2. Frequent use of interrogative sentence types and very few imperatives.
3. Common use of vocatives, especially in initial position.
4. Rare use of nominal groups as subjects; the personal pronouns are more in evidence, the informal *you* is quite common in its impersonal function.
5. A great number of question tags.
6. The use of all sorts of repetitions and repetition structures. Even adverbial intensifiers such as *very* may be repeated several times.
7. The occurrence of contrasted verbal forms (*he's, I'll, I've*).
8. The frequency of colloquial ellipses.

All these features and many others, not mentioned here, would be condemned by many teachers of grammar and it would be only just for any other speech style, but for this type of speech it is a standard and indeed a valuable part of informal conversation. Formal written and informal spoken English are totally different varieties of the language and the criteria of acceptable usage must not be confused.

The most noticeable aspect of everyday conversations is their vocabulary. It is characterized by colloquial idioms, the use of words simple in structure, the avoidance of phraseology; also the informality of the text is achieved by the use of words and phrases specific for such conversations, e.g. *Yeah. Right. O.K. I see. Oh, yes. Yes, yes. Oh, lovely. Oh dear. Alright. Sure. Good heavens! Thanks! Jolly good! Really? Come off it! Oh, no! Hey!* and others. (54)

On the prosodic level the field researchers provide us with data that help us to do some generalizations (54, 13).

1. Conversations fall into coordinated blocks, consisting of suprasegmental and supraphrasal units tied up by variations within the length of pauses, speed, rhythm, pitch ranges, pitch levels and loudness.

2. Since there are no restrictions on the range and depth of emotions which might be displayed in conversational speech situations they will allow entire range of prosodic effects.

3. In the description of prosodic characteristics of this intonational style we will begin by saying that intonation groups are rather short, their potentially lengthy tone units tend to be broken. These short interpausal units are characterized by decentralized stress and sudden jumps down on communicative centres, e.g.

Jane: →That's ˌgoing... | to →makė you very unˈfit, you know.

4. The heads are usually level, or rarely, falling. Falling heads occur only in groups consisting of several stressed syllables.

5. As for the nuclei, simple falling and rising tones are common. Emphatic tones occur in highly emotional contexts. High pre-nuclear syllables are very frequent, e.g.

"— Do you think it ˌmatters?"
"— I'd →rather be °thin than ˌfat."

6. The tempo of colloquial speech is very varied. The natural speed might be very fast but the impression of "slowness" may arise because of a gteat number of hesitation pauses both filled and non-filled (hesitant drawls) within the block. However, the speakers may have no pauses between their parts, very often they speak simultaneously, interrupt each other.

Also a familiar point about informal conversation is the frequency of silence for purposes of contrastive pause as opposed to its being required simply for breath-taking.

Pauses may occur randomly, not just at places of grammatical junctions, e.g.

Richard: ˌOh, || ...ˌlook, | you ˌdon't seem to | ˈrealize >that ||| ...that I ˌlike it. ||

So, tempo is very flexible in this style. It is uneven with and between utterances.

7. Interpausal stretches have a marked tendency towards subjective rhythmic isochrony.

Now to conclude the description of prosodic invariant characteristics we would like to point out that the impression that the intonation is rather "chaotic" in conversations is completely wrong. Suprasegmental features form a basic set of recurrent patterns which is occasionally disturbed by the introduction of specific prosodic and paralinguistic effects which depend upon the modality an individual is using.

The phonological opposition of conversational (informal) and informational (formal) dialogues shows that there is much in common between them, but the former are characterized by a greater variety in all linguistic and extralinguistic characteristics, therefore much research work should be done to enable investigators to have good grounds to draw the invariantal phonostylistic characteristics of this type of speech.

Now we shall examine another, very specific register of conversational style — **telephone conversations**. This sphere of communication is limited in certain important respects by the special situation, which imposes a number of restrictions.

The conversationalists who can see each other are able to place a great amount of reliance on the facilities offered by such things as gesture and the presence of a common extralinguistic context.

Telephone conversations lack these facilities to a large extent and so have a tendency to become more explicit than ordinary conversations with a different use of "indicator" words such as pronouns which may be vague in their reference if it cannot be seen who or what is referred to.

The telephone situation is quite unique being the only frequently occurring case of a conversation in which the participants are not visible to each other, so there is some uncertainty in keeping up the give-and-take between the participants.

A different range of situational pressures is exerted upon the participants, and consequently a range of linguistic contrasts which they are permitted to choose differs somewhat.

The "talkers" avoid long utterances without introducing pauses. Pauses cannot be long, because anything approaching a silence may be interpreted by the listener either as a breakdown of communication or as an opportunity for interruption which may not have been desired. Voiced hesitation introduced to fill

the gap (drawls, random vocalizations, repetitions of words) is more frequent here than elsewhere. In view of the purpose of a telephone call questions (also repeated and echoed), responses and imperatives are very common.

Vocabulary is characterized by the use of colloquialisms, idioms and vocalization. The opening and closing of a telephone conversation are marked by the use of the same formulas, the linguistic devices carrying out these operations are not numerous and always predicted.

It is obvious that telephone conversations differ from others mainly in degree of formality and can most realistically be seen as a subprovince of the more general notion.

We shall conclude this chapter by examining one more area of conversations, namely, when partners' stretches of speech are not equal: one is an active speaker, the other is an active listener. It happens when people tell stories of anecdotal character or in the form of long narratives. It may be the story of a film or a book or just a story of events that have happened to us. In this case the speech of the narrator reminds us very much of the informational monologue, only differs in the degree of formality.

Correspondingly, there is a greater variety in using hesitation phenomena (filled or non-filled), vocalizations, repetitions and so on.

The speed of utterances and pausal contrasts vary in accordance with the semantic value of the narration.

The listener responds either non-verbally by using vocalizations, gestures and facial expressions or by prompting the talk with all sorts of phrases showing personal concern and interest, like: *What then? So what? And? Well?* and so on.

Now by way of conclusion we would like to say that it is not without significance that education is now increasingly interested in communicative studies. Teachers have to find new ways of coming to terms with those they hope to teach and the study of interaction is one way of trying to enable sufficient "conversation" to take place to facilitate teaching and learning.

In a study of interaction there is a real hope for improving teacher's effectiveness. But any such study has to be highly complex, and in view of the difficulty and complexity the question of whether such studies can be of practical value was raised and some useful advice for such attempts was given.

"Language" and "People" are both familiar terms and repre-

sent familiar things. But the "and" between them represents an enormously complex relationship. This relationship involves cultures and civilizations, individual human beings, their interaction and their forms of organization, it involves values.

The book of our aim cannot pretend to explore in any depth or with any adequacy such vast areas, but it seems worth making attempts to trail some of the more significant strands in the relationships and that's what we tried to do here.

INTONATION AND LANGUAGE TEACHING

It is not possible within the limited space of this book to give a complete survey of the structure and function of English intonation, of various ways of its realization in English speech. We have so far confined ourselves to the significance of intonation choices not only within utterances but also viewed on a relatively new linguistic level, i.e. discourse, to handle the way in which functional units combine together.

1. All intonation choices depend ultimately on the extralinguistic situation the speakers find themselves in, on the speaker's assessment of the state and extent of the common ground between himself and his listener.

2. There are three very important stages especially in classroom interaction — opening, answering and follow-up. An opening phrase sets up certain constraints and expectations which the answering phrase(s) fulfils. Answering is said to fulfil expectations but to set up none itself and thus can be followed either by a new opening, which may be produced by the same speaker or the other one, or by a follow-up, which reacts to or comments on the answering phrase.

— Have you got the time?
— It's three o'clock.
— Thanks.

Or:

— Have you got the time?
— It's three o'clock. Are you in a hurry?
— Thanks. I certainly am.

The opening phrase delimits a set of acceptable answering moves; a follow-up move can do little more than non-conten-

tiously reformulate or comment upon the answering move or ask for some more information. The choice of intonation depends on how the speaker's contribution relates to the previous message.

If no special attitudes are expressed in the microdialogues above the opening phrase is more likely to be pronounced with a mid pre-nuclear part + mid-rising terminal tone; the answering move repeats the level of the pre-nuclear part + low falling or mid-level terminal tone. The second phrase may have the low rising tone. The follow-up move is pronounced either within the same level or lower with the low falling terminal tone. The addition of this or that attitude may change the integrating structure of the intonation in many possible ways. The teacher must be aware of the fact that all possible modifications of intonation are inseparably connected with the particular speech situation and the attitudes expressed by the participants.

3. To convey the idea adequately the speaker must be always aware of the relative information load carried by particular elements in his discourse. The distribution of prominence in each particular phrase depends upon the speaker's apprehension of the state of convergence he shares with the hearer. We said earlier that the physiological mechanism that produces speech, functions as a whole, and any change in the production of pitch, loudness and duration is likely to be accompanied by complementary, perhaps compensatory, changes in the others. It would be a mistake to underestimate the difficulty of deciding what, in a given instance, contributes most to a hearer's recognition of a linguistically meaningful choice. Most native speakers feel that their ability to recognize what we call "prominence" depends as much upon loudness and duration as upon pitch, but a phonetically untrained ear does not recognize their compensatory effect. The learner of English must be particularly careful about the distribution of prominence among the parts of his utterance. It is not always necessary to make prominent notional words. On the other hand, form-words may be informationally loaded and stand out rather strongly:

— What will John do?
— I doubt John's coming.
— I think he's coming.
— But he *is* coming.

This is how an interactive theory of intonation can be applied in a speaker-to-speaker discourse. How, one may ask, can this theory be appropriate to describe choices of intonation made when a speaker is reading aloud a ready-made text?

We must first emphasize that we see even silent reading as an essentially interactive process — not however, between reader and writer, but rather between reader and text. Whatever text he is concerned with, fictional or factual, the reader's task is to discover not what the writer intends, for that is not recoverable, but rather what meaning(s) the text legitimately allows. Readers do not approach texts without a purpose or with a blank mind. Reading is an active process in which they attempt to mash the new information provided by the text with their existing knowledge; writers do not write for all possible audiences but for a particular one and a major problem for the expository writer is to judge how much his text can assume as common ground — each reader will know for himself how far we have succeeded.

Given this view of the reading process one must then ask what is the role of the reader aloud? Obviously he is translating the written text into a spoken one, but in doing so he is forced to make choices in the intonation system as well, and thus add some information to the text. On what grounds does he make these choices? It seems that he has two entirely different options: he can either enter into the text, interpret it and "perform" it as if he himself were speaking to the listener, saying as it were, "this is what the text means"; or he can stand outside the text and simply act as the medium, saying this is what the text says. It is definitely clear that the first approach suggests more effect on the listener's apprehension.

We must note right here that though lexics and grammar may sometimes determine the tone choice there is nothing deterministic about the connection between lexico-grammatical description of the item on the one hand and the intonation treatment on the other.

We can postulate at least three levels of engagement with the reading task. At the lowest level the reader makes such decisions about proclaimable and referable matter as are justified by a consideration of each successive sentence in isolation. If we take the text: "He could have been mistaken. The books were still lying on the desk. It must have been Peter they had seen" we could expect a reading something like:

He *couldn't* have been *mistaken*. The *books* were still lying on the *desk*. It must have been *Peter* they had *seen*.[1]

But if the reader makes sentence-by-sentence decisions in the light of earlier sentences — that is to say, if he incorporates the unfolding text into the "world" to which he orientates — then we might expect:

He *couldn't* have been *mistaken*. The *books* were still lying on the desk. It *must* have been *Peter* they had *seen*.

In this version, which is probably only one of several that could be invented, "the books" are presented as the reason for maintaining that "he couldn't have been mistaken", proclaim new information and therefore are pronounced with the falling tone; and the judgement implied by "must have been" has rising or falling-rising tone, as a virtual reiteration of that implied by "he couldn't". However, if the text is treated as fitting into a wider context — as being related, for instance, to a tacit understanding that "he" is not the kind of person who makes mistakes, and set in a world in which objects like "the desk" can be taken for granted — then the reading might go like:

He *couldn't* have been *mistaken*. The *books* were still lying on the desk. It must have been Peter they had *seen*.

All the intonation groups in this interpretation are likely to be pronounced with the falling tones.

This type of reading by an informed reader to an informed listener could have a direct application in foreign language teaching. One of the difficulties of reading a text in a foreign language is seeing how the individual sentences hold together and how they relate to other sentences, while one of the things a reader aloud does is to highlight the information structure of the passage. It seems to us that one could usefully teach foreign learners the rudiments of a description of intonation and then have them read following the intonationally structuring model.

It is not possible, within the limited space of this section, to give a complete survey of the most important principles of intonation choice in other speech realizations. It is definitely a subject for discussion in a special book dealing with the methods of teaching pronunciation.

But there is one more point that should be mentioned right

[1] Semantic centres are italicised.

here. Clearly, the language interaction in which learner and teacher engage is limited by their social roles and didactic purposes do not give the chance of realizing all the meanings signalled by intonation. Therefore teaching material should suggest extralinguistic situations in which role playing could expose the learner to varieties of spoken interaction.

By way of conclusion we would say that there is a much longer history behind the teaching of grammar and lexics, as translated into classroom textbooks and general courses, than there is behind intonation; the regular integration of it into the language training syllabuses is something that is to come yet.

It would be perfectly natural to add that the object of linguistic studies is verbal language as a communicative tool. At the same time it is obvious that although verbal means (intonation among them) form the core of most human communication situations, the total message is actually conveyed through their interrelation with systems other than verbal. Among them **kinesics** proves to be an essential part of the human message-conveying activities of speech and movement. Since verbal language cannot be studied in isolation, the realistic departure in non-verbal communication studies is the integration of human signalling systems.

Typically, in any dyadic conversation one person can be identified as the speaker and the other as the listener. It is generally assumed that the person in the speaker role is the dominant provider of information. However listeners quite frequently give brief verbal responses. The contents of verbal listener responses can range from simple "mhm" to more complex utterances such as "I think I see what you mean". Listeners are as active kinesically as they are verbally. They engage in a wide range of visible non-verbal behaviours, some but not all of which co-occur with their verbal listener responses. These include occasional shift in posture, periodic changes in direction of orientation of the head and eyes, gesticulations of the hands and arms and a variety of affective (and emblematic) reactions involving the face and head. Presumably many of these non-verbal activities of listeners function to provide feedback about the adequacy of the presentations of speakers. However, little concrete evidence is available about the particular feedback functions that are served by variations in non-verbal responses of listeners, or about how these interact with the verbal components of listener responses. The most commonly identified kinesic form of listener responses

is the head nod. Head nods may or may not accompany verbal listener responses. In fact they occur in the absence of any verbal component.

Attempts have been made to identify the major varieties of speaker and listener behaviours. Among speaker's non-verbal behaviours the following are substantively distinct.

1. "Active ending" characterized by the shifting of posture towards the listener, turning and pointing the head towards the listener, small head nods, the holding of gesticulations and a clear pause.

2. "Floor maintenance" consists of turning the head and eyes away from the listener both prior to and during the verbal listener response.

3. "Persistent display" is comprised, of eyebrow flashes and raised brows during the end of the speaker's utterance and the lowering of brows and termination of smiles during the subsequent verbal listener response phase.

4. "Deactivation ending" consists of the termination of smiles, or frowns, and of eyebrow raises prior to the listener response.

Among listener's behaviours the following could be mentioned.

1. "Normal acknowledgement" is based upon a number of normal head nods during the verbal listener response. It appears to be a classic indicator of attention to, and acceptance of, the flow of the speaker's utterances.

2. "Preprocessing" is head nodding prior to the end of the speaker's utterance indicating that the listener is signalling understanding before the speaker has finished talking.

3. "Minimal recognition" is composed of brief smiles and small head nods during the listener's verbalization.

4. "Interest" is based on forward posture and visual attention prior to the verbal listener response, and the initiation of eyebrow raises or flashes or blinks during the verbal listener response.

5. "Disengagement" includes both gaze aversion and return of gaze during the listener response period.

The described non-verbal behaviours and their interpretation are presented by the first steps in the field of non-verbal communication where a thorough further research is expected, especially in the field of correlation between the use of phonetic units and non-verbal behaviours.

Chapter VI

TERRITORIAL VARIETIES OF ENGLISH PRONUNCIATION

FUNCTIONAL STYLISTICS AND DIALECTOLOGY

This chapter is concerned with varieties of English in different regions of Britain and various countries of the world. It is quite clear of course that dialectology is inseparably connected with sociolinguistics, the latter deals with language variation caused by social difference and differing social needs; it studies the ways language interacts with social reality.

We propose now a definition of this field of science: Sociolinguistics is the branch of linguistics which studies different aspects of language — phonetics, lexics and grammar with reference to their social functions in the society. Thus sociolinguistics explains language phenomena in connection with factors outside the language faculty itself in terms of large-scale social structure and in terms of how people use language to communicate with one another.

Though in the past fifteen years sociolinguistics has come of age and is a fast expanding and increasingly popular subject it should be fair to mention here that language has always been viewed as a social phenomenon, the most important means of human intercourse. So it is evident that language is indissolubly linked with the society; in it we can see a faithful reflection of the society in which people live.

It is quite clear, of course, that such fields of science as linguistics, sociolinguistics, psycholinguistics are inseparably linked in the treatment of various language structures. For example, the subject matter of ethnolinguistics gradually merges into that of anthropological linguistics and that into sociological linguistics and that into stylistics, and the subject matter of social psychology.

Some scholars consider functional stylistics to be a branch of sociolinguistics since it studies the distinctive linguistic characteristics of smaller social groupings (such as those due to occupational class, age and sex differences) (38, 68).

In the case of English there exists a great diversity in the spoken realization of the language and particularly in terms of pronunciation. The varieties of the language are conditioned by language communities ranging from small groups to nations. Now speaking about the nations we refer to the **national variants** of the language. In their treatment we follow the conception of A.D.Shweitzer. According to him national language is a historical category evolving from conditions of economic and political concentration which characterizes the formation of a nation (38). In other words national language is the language of a nation, the standard of its form, the language of a nation's literature.

It is common knowledge that language exists in two forms: written and spoken. Any manifestation of language by means of speech is the result of a highly complicated series of events. The literary spoken form has its **national pronunciation standard**. A "standard" may be defined as "a socially accepted variety of a language established by a codified norm of correctness" (68, p. 68).

Today all the English-speaking nations have their own national variants of pronunciation and each of them has peculiar features that distinguish it from other varieties of English.

It is generally accepted that for the "English English" it is "Received Pronunciation" or RP; for "The American English" — "General American pronunciation"; for the Australian English — "Educated Australian" (we shall speak about it in detail later in the book).

Standard national pronunciation is sometimes called an "orthoepic norm". Some phoneticians, however, prefer the term "literary pronunciation".

Though every national variant of English has considerable differences in pronunciation, lexics and grammar, they all have much in common which gives us ground to speak of one and the same language — the English language.

It would not be true to say that national standards are fixed and immutable. They undergo constant changes due to various internal and external factors. Pronunciation, above all, is subject to all kinds of innovations. Therefore the national variants of English differ primarily in sound, stress and intonation. It is well-known that there are countries with more than one national language, the most common case being the existence of two national languages on the same territory. For this Canada will be an

example, where two different languages — English and French — form the repertoire of the community. In this case scholars speak about **bilingualism** in contrast to **monolingualism** typical of a country with one national language. Here arises the problem of interference, that is "linguistic disturbance which results from two languages (or dialects), coming into contact in a specific situation" (52, p. 254).

It may be well to state that every national variety of the language falls into territorial or regional **dialects**. Dialects are distinguished from each other by differences in pronunciation, grammar and vocabulary. We must make clear that, when we refer to varieties in pronunciation only, we use the word "**accent**"[1]. So local accents may have many features of pronunciation in common and consequently are grouped into **territorial** or **area accents**. In Britain, for example, Yorkshire, Lancashire and Cheshire accents form the group of "Northern accent". We must admit, however, that in most textbooks on phonetics the word "dialect" is still used in reference to the regional pronunciation peculiarities, though in the latest editions both in this country and abroad the difference in terms "dialects and accents" is generally accepted. As we see, those terms should be treated differently when related to different aspects of the language. It is, however, true that there is a great deal of overlap between these terms. For certain geographical, economic, political and cultural reasons one of the dialects becomes **the standard language of the nation** and its pronunciation or its accent — **the received standard pronunciation**. This was the case of London dialect, whose accent became the "RP" ("Received Pronunciation") of Britain (57).

It has been estimated that the standard pronunciation of a country is not homogeneous. It changes in relation to other languages, and also to geographical, psychological, social and political influences. In England, for example, we distinguish "conservative, general and advanced RP" (57).

As a result of certain social factors in the post-war period — the growing urbanization, spread of education and the impact of mass media, Standard English is exerting an increasing powerful influence on the regional dialects of Great Britain. Recent surveys of British English dialects have revealed that the pressure of

[1] Learners of a foreign language often use the word "accent" to describe pronunciation features in a foreign language influenced by the mother tongue, in other words, a foreigner may be easily recognized by an accent.

Standard English is so strong that many people are bilingual in a sense that they use an imitation of RP with their teachers and lapse into their native local accent when speaking among themselves. In this occasion the term **diglossia** should be introduced to denote a state of linguistic duality in which the standard literary form of a language and one of its regional dialects are used by the same individual in different social situations. This phenomenon should not be mixed up with **bilingualism** that is the command of two different languages. In the case of both diglossia and bilingualism the so-called code-switching takes place. In recent years the effect of these forms of linguistic behaviour is studied by sociolinguists and psychologists.

As was stated above, language, and especially its oral aspect varies with respect to the social context in which it is used. The social differentiation of language is closely connected with the social differentiation of society. Nevertheless, linguistic facts cannot be attributed directly to class structure. According to A.D.Shweitzer "the impact of social factors on language is not confined to linguistic reflexes of class structure and should be examined with due regard for the meditating role of all class-derived elements — social groups, strata, occupational, cultural and other groups including primary units (small groups)" (38).

Western sociolinguists such as A.D.Grimshaw, J.Z.Fisher, B.Bernstein, M.Gregory, S.Carroll, A.Hughes, P.Trudgill and others, are oriented towards small groups, viewing them as "microcosms" of the entire society. Soviet sociolinguists recognize the influence of society upon language by means of both micro- and macro-sociological factors.

Every language community, ranging from a small group to a nation has its own social dialect, and consequently, its own social accent.

British sociolinguists divide the society into the following classes: upper class, upper middle class, middle middle class, lower middle class, upper working class, middle working class, lower working class.

The validity of this classification is being debated in sociolinguistics. The problem of social stratification and of group theory has only recently been tackled by the science of sociology. The serious study of social dialects must be proceeded, or at least accompanied by significant advances in sociology and especially

in the more precise definition of the notions; such as class, nation, nationality, society, language community, occupation, social group, social setting, occupational group, and so on.

It is well worth to understand that classes are split into different major and minor social groups (professional, educational, cultural, age, sex and so on). Correspondingly every social community has its own social dialect and social accent. D.A. Shakhbagova defines social dialects as "varieties spoken by a socially limited number of people" (73).

So in the light of social criteria languages are "characterized by two plans of socially conditioned variability — stratificational, linked with societal structure, and situational, linked with the social context of language use" (38, p. 6).

Having had our main terms straightened we may speak now of the "language situation" in terms of the horizontal and vertical differentiations of the language, the first in accordance with the spheres of social activity, the second — with its situational variability.

It is evident that the language means are chosen consciously or subconsciously by a speaker according to his perception of the situation, in which he finds himself. Hence situational varieties of the language are called functional dialects or functional styles and situational pronunciation varieties — situational accents or phonostyles.

It has also to be remembered that the language of its users varies according to their individualities, range of intelligibility, cultural habits, sex and age differences. Individual speech of members of the same language community is known as **idiolect.**

Now in conclusion it would be a perfectly natural thing to say that language in serving personal and social needs becomes part of the ceaseless flux of human life and activity. Human communication cannot be comprehended without recognizing mutual dependence of language and context. The mystery of language lies, if nowhere, in its endless ability to adapt both to the strategies of the individual and to the needs of the community, serving each without imprisoning either. This is what makes sociolinguistics as a science so important. In this book, though, we shall focus our attention on **territorial** modifications of English pronunciation viewing them as an object of sociolinguistic study.

It is common knowledge that over 300 million people now speak English as first language. It is the national language of Great Britain, the USA, Australia, New Zealand and Canada (part of it).

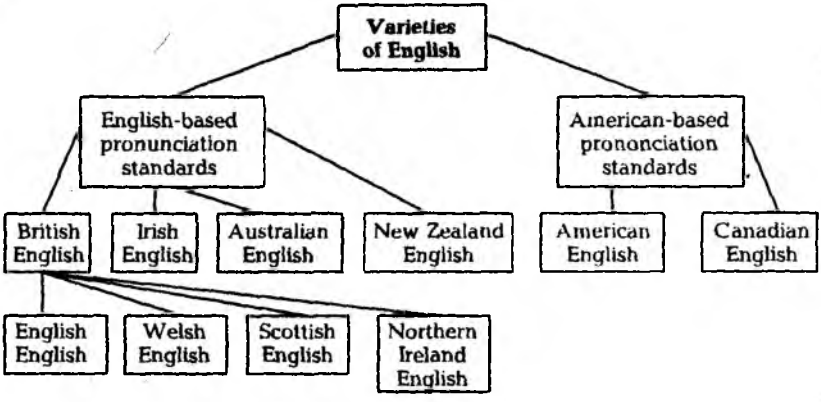
English was originally spoken in England and south-eastern Scotland. Then it was introduced into the greater part of Scotland and southern Ireland. In the 17th and 18th centuries it was brought to North America (mainly from the West of England). Later in the 18th and 19th centuries English was exported to Australia, New Zealand and South Africa owing to the colonial expansion. A flow of emigrants who went to invade, explore and inhabit those lands came mostly from the south-eastern parts of England.

English became wide-spread in Wales at about the same time. Welsh English is very similar to southern English, although the influence of Welsh has played a role in its formation. Then in the 20th century American English began to spread in Canada, Latin America, on the Bermudas, and in other parts of the world. Thus nowadays two main types of English are spoken in the English-speaking world: English English and American English.

According to British dialectologists (P.Trudgill, J.Hannah, A.Hughes and others (61, 78) the following variants of English are referred to the English-based group: English English, Welsh English, Australian English, New Zealand English; to the American-based group: United States English, Canadian English.

Scottish English and Irish English fall somewhere between the two,being somewhat by themselves.

On the whole this division seems rather reasonable and the "English" types of English will be treated first in this book, though it is safe to say that English English, Welsh English, Scottish English and Northern Ireland English should be better combined into the British English subgroup, on the ground of political, geographical, cultural, psychological unity which brought more similarities than differences for those variants of pronunciation.



To our regrets, the lack of space gives us no chance to describe all the territorial and national variants of English pronunciation.

ENGLISH-BASED PRONUNCIATION STANDARDS OF ENGLISH

British English

As was mentioned before, BEPS (British English Pronunciation Standards and Accents) comprise English English, Welsh English, Scottish English and Northern Ireland English (the corresponding abbreviations are EE, WE, ScE., NIE).

Table 1

British English Accents

English English		Welsh English	Scottish English		Northern Ireland English
Southern	Northern		Educated Sc. Eng.	Regional Varieties	
1. Southern 2. East Anglia 3. South-West	1. Northern 2. Yorkshire 3. North-West 4. West Midland				

I. English English

In this chapter we are going to look in greater detail at the Received Pronunciation (RP) and at the regional non-RP accents of England.

Roughly speaking the non-RP accents of England may be grouped like this:

1. Southern accents.

1) Southern accents (Greater London, Cockney, Surray, Kent, Essex, Hertfordshire, Buckinghamshire);
2) East Anglia accents (Lincolnshire, Norfolk, Suffolk, Cambridgeshire, Bedfordshire, Northamptonshire, Leicestershire;
3) South-West accents (Gloucestershire, Avon, Somerset, Wiltshire).

2. Northern and Midland accents.

1) Northern accents (Northumberland, Durham, Cleveland);
2) Yorkshire accents;
3) North-West accents (Lancashire, Cheshire);
4) West Midland (Birmingham, Wolverhampton).

A. RP (Received Pronunciation)

It has long been believed that RP is a social marker, a prestige accent of an Englishman. In the nineteenth century "received" was understood in the sense of "accepted in the best society". The speech of aristocracy and the court phonetically was that of the London area. Then it lost its local characteristics and was finally fixed as a ruling-class accent, often referred to as "King's 'English". It was also the accent taught at public schools. With the spread of education cultured people not belonging to the upper classes were eager to modify their accent in the direction of social standards.

We may definitely state now that RP is a genuinely regionless accent within Britain; i.e. if speakers have it you cannot tell which area of Britain they come from; which is not the case for any other type of British accents.

It is fair to mention, however, that only 3—5 per cent of the population of England speak RP. British phoneticians (Ch.Barber

(44), A.C.Gimson (57), A.Hughes and P.Trudgill (61) estimate that nowadays RP is not homogeneous. A.C.Gimson suggests that it is convenient to distinguish three main types within it: "the conservative RP forms, used by the older generation, and, traditionally, by certain profession or social groups; the general RP forms, most commonly in use and typified by the pronunciation adopted by the BBC, and the advanced RP forms, mainly used by young people of exclusive social groups — mostly of the upper classes, but also for prestige value, in certain professional circles" (57, p. 88).

This last type of RP reflects the tendencies typical of changes in pronunciation. It is the most "effected and exaggerated variety" of the accent. Some of its features may be results of temporary fashion, some are adopted as a norm and described in the latest textbooks. Therefore, it is very important for a teacher and learner of English to distinguish between the two. RP speakers make up a very small percentage of the English population. Many native speakers, especially teachers of English and professors of colleges and universities (particularly from the South and South-East of England) have accents closely resembling RP but not identical to it. P.Trudgill and J.Hannah call it Near-RP southern. So various types of standard English pronunciation may be summarized as follows: Conservative RP; General RP; Advanced RP; Near-RP southern.

Changes in the Standard

As was stated above, changes in the standard may be traced in the speech of the younger generation of native RP speakers. These changes may affect all the features of articulation of vowel and consonant phonemes and also the prosodic system of the language.

Considerable changes are observed in the sound system of the present-day English, which are most remarkable since the well-known Great Vowel Shift in the Middle English period of the language development. It is a well-established fact that no linguistic modification can occur all of a sudden. The appearance of a new shade in the pronunciation of a sound results in the coexistence of free variants in the realization of a phoneme. The choice between permissible variants of [w] or [ʍ] in wh-words is

an illustration of what is meant by the process of variability and free variants. In Russian we observe free variants of the pronunciation of the words of *энергия, темп* type: non-palatalized and palatalized versions of [н] — [н'] and [т] — [т']. The degrees of variability are different. The most perceptible and stable changes are described in the works of British linguists and have been investigated by Soviet phoneticians. The RP of recent years is characterized by a greater amount of permissible variants compared to the "classical" type of RP described by D.Jones, L.Armstrong, I.Word.

The phenomenon is significant both from the theoretical and practical viewpoint. The variability concerns mainly vowels. Most of English vowels have undergone definite qualitative changes. The newly appeared variants exhibit different stability and range.

The qualitative distinctions manifest new allophonic realizations of the vowel phonemes. Ch.Barber comes to the conclusion that a definite trend towards centralization is observed in the quality of English vowels at present (44).

Changes of Vowel Quality

1. According to the stability of articulation. 1) It is generally acknowledged that two historically long vowels [i:], [u:] have become diphthongized and are often called diphthongoids; the organs of speech slightly change their articulation by the very end of pronunciation, becoming more fronted. Ch.Barber tries to draw a parallel with the Great Vowel Shift which took place in Middle English, where diphthongization was just one part of a complete change of pattern in the long vowels. He claims that there is some resemblance to this process today and other phonemes may move up to fill the places left vacant.

2) There is a tendency for some of the existing diphthongs to be smoothed out, to become shorter, so that they are more like pure vowels.

a) This is very often the case with [eɪ], particularly in the word final position, where the glide is very slight: [tə'deɪ], [seɪ], [meɪ].

b) Diphthongs [aɪ], [aʊ] are subject to a smoothing process where they are followed by the neutral sound [ə]:

Conservative RP: [taʊə], [faɪə]
General RP: [taə], [faə]

Advanced RP: [tɑ:], [fɑ:]

c) Also diphthongs [ɔə], [ʊə] tend to be levelled to [ɔ:]. Thus the pronunciation of the words *pore, poor* is varied like this:

older speakers: [pɔə], [pʊə]
middle-aged speakers: [pɔ:], [pʊə]
younger speakers: [pɔ:], [pɔ:]

It should be mentioned, however, that this tendency does not concern the diphthong [ɪə] when it is final. The prominence and length shift to the glide, this final quality often being near to [ʌ]: *dear* [dɪə] — [dɪʌ].

2. According to the horizontal and vertical movements of the tongue. Very striking changes occur in the vowel quality affected by the horizontal movements of the tongue. In fact the general tendency is marked by the centering of both front and back vowels:

a) the nuclei of [aɪ], [aʊ] tend to be more back, especially in the male variant of the pronunciation;

b) the vowel phoneme [æ] is often replaced by [a] by younger speakers: [hæv] — [hav], [ænd] — [and];

c) the nucleus of the diphthong [ɜu] varies considerably, ranging from [oʊ] among conservative speakers to [ɜʊ] among advanced ones:

Conservative RP: [soʊ], [foʊn], [noʊt];
Advanced RP: [sɜʊ], [fɜʊn], [nɜʊt].

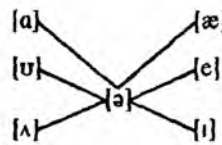
This tendency is so strong that the transcription symbol has been recently changed in many British books: [oʊ] — [ɜʊ].

d) Back-advanced vowels [ʌ], [ʊ] are considerably fronted in the advanced RP: *but* [bʌt] — [bət], *good* [gʊd] — [gəd].

It should be mentioned here that there is a tendency for all short vowels to be made nearer the centre of the mouth, that is to move towards [ə], especially in unstressed position: *honest* ['ɒnɪst] — ['ɒnəst].

Thus the horizontal changes in vowel quality may be listed like this:

Centering of short vowels:



More back pronunciation of the nuclei of diphthongs: [aɪ] → [ɑɪ], [aʊ] → [ɑʊ].

More advanced pronunciation of the diphthong: [oʊ] → [ɜʊ].

More fronted pronunciation of the diphthongoids: [i̯] → [ɪ(j)], [u] → [u(w)].

Vertical changes in vowels may be traced in [e] and [ɔ:] which tend to be closer in advanced RP. It has also been stated above that the nuclei of diphthongs [eɪ], [ɛə], [ɔə], [ʊə] become more open when these phonemes are being levelled, particularly the diphthong [ɛə], which is characterized by a great opening of the first element: *careful* ['kɛəfʊl] — ['kɛ:fʊl]. The first element of the diphthong [ʊə] can be lowered considerably. Thus several words with [ʊə] are given a shade [ɔᵊ] pronunciation by some advanced RP speakers: *poor, sure* [pʊə, ʃʊə] — [pɔᵊ, ʃɔᵊ].

3. Combinative changes. It is general knowledge that when sounds are in company they influence each other. These changes are called combinative. They take place only in certain phonetic contexts. In a diacritic study, however, there is no sharp boundary between isolative and combinative changes.

1) Changes in [j + u:], [l + u:]. Words like *suit, student, super* may be pronounced either [sju:t] or [su:t], ['stju:dənt] or ['stu:dnt], ['sju:pə] or ['su:pə]. The tendency is for middle-aged and younger speakers to omit the [j] after [s] before [u:]. Word-internally [j] tends to be retained as in *assume* [əsju:m]. There is also fluctuation after [l]: word-initially *lute* [lu:t] is normal, but it is possible to pronounce [l'ju:ʒn] in *illusion*, for example. These recent developments in combinative RP changes bear remarkable resemblance to American Standard pronunciation.

2) Change of [ɔ:] to [ɒ] before [f, s, θ]. Where orthographic "o" occurs before the voiceless fricatives [f, s, θ] older speakers pronounce the vowel [ɔ:]: *loss* [lɔ:s]. This pronunciation is currently dying out in RP and being replaced by [ɒ]: [lɒs].

Words like *salt* and *fault* still may be pronounced with [ɔ:].

4. Changes in length. It is an accepted fact that English vowels vary in length according to the phonetic context — the consonant they are followed by (voiceless, voiced), syllabic border, the degree of stress, the types of nuclear tone and so on.

Actually nowadays there are changes in vowel length that are influenced by other factors. There is, for example, a strong tendency for the so-called short vowels to be lengthened, and it is interesting to note that this lengthening can be heard sporadically in many words in any position.

The lengthening of [ɪ] is often heard in *big, his, is*; of [ʊ] in *good*; [ʌ] in *come*. It should also be mentioned that [ɪ] is often lengthened in the final syllable, i.e. *very, many*: ['veri:], ['meni:].

Short vowels [e, æ] are also very frequently lengthened in *yes, bed, men, said, sad, bad, bag* and so on. This tendency has considerably increased in the past few years.

Changes in Consonant Quality

1. Voicing and Devoicing. As is well known, there is no opposition of final RP consonants according to the work of the vocal cords. They are all partially devoiced, particularly stops. Such devoiced sounds are clearly heard after long vowels and diphthongs as in *deed*: [di:d]. However, these partly devoiced consonants are never identical with their voiceless counterparts, because the latter are pronounced with strong breath-force.

This tendency for devoicing now seems to be on the increase. As soon as the opposition of voiced — voiceless is neutralized in the final position, the fortis/lenis character of pronunciation has become the relevant feature of consonants.

The voiced/voiceless distinction of the minimal pairs [sed] — [set], [dɒg] — [dɒk] may seem to be lost. Actually it does not take place. The weak consonants are never replaced by their voiceless counterparts, they never become strong, the stops [b, d, g], though devoiced, never acquire aspiration. More than that. The interrelation of final consonants and the preceding stressed vowels is very close. The instrumental investigation of E.G.Kurjatnikova (21) showed that the duration of the vowel before the traditionally called voiced consonant is 1,5 times larger than that before the voiceless consonant. Cf.:

He saw his cap. — He saw his cab.

Describing the positional allophones of the English stops A.C.Gimson characterizes the initial lenis [b, d, g] as partially devoiced, final lenis [b, d, g) as voiceless.

The sound [t] in the intervocalic position is made voiced, e.g. *better* ['betə] — ['bedə], *letter* ['letə] — ['ledə].

2. Loss of [h]. In rapid speech initial [h] is lost in form words and tends to die out from the language. Even most highly educated people subconsciously drop it completely. So instead of: *He wants her to come* [hi· ˈwɒnts hɜ· tə ˌkʌm] one hears: [iː ˈwɒnts ɜ· tə ˌkʌm]. It is evident, of course, that the loss of [h] in stressed syllables sounds wrong.

3. Initial "hw". Some conservative RP speakers pronounce words like *why, when, which* with an initial weak breath-like sound [h] — [ʍ]. The general tendency is, however, to pronounce [w].

4. Loss of final [ŋ]. The pronunciation of [n] for the termination [ɪŋ] has been retained as an archaic form of the RP: *sittin', lookin'*. These occasional usages are not likely to become general.

5. Spread of "dark" [ɫ]. This tendency is evidently influenced by the American pronunciation and some advanced RP speakers are often heard saying [ɫ] instead of [l] as in *believe*, for example. There is no threat in spreading it widely yet but it is quite common for pop singers now. It should also be mentioned that sometimes final [ɫ] tends to be vocalized as in *people*, for instance, but is not likely to become a norm.

6. Glottal stop. In RP the glottal stop [ʔ] can appear only in the following two environments: a) as a realization of syllable-final [t] before a following consonant as in *batman* ['bætman] — ['bæʔmn] or *not quite* ['nɒt 'kwaɪt] — ['nɒʔ 'kwaɪt]; b) in certain consonant clusters as in *box, simply* [bɒʔks], ['sɪʔmplɪ], where it is known as "glottal reinforcements". The use of glottal stop by advanced RP speakers produces a "clipped" effect on a foreigner.

7. Palatalized final [k'] is often heard in words *week, quick*, etc.: [wiːk'], [kwɪk'].

8. Linking and intrusive [r]. It has been estimated that all English accents are divided into "rhotic" or "r-full" and "non-rhotic" or "r-less". Rhotic accents are those which actually pronounce [r] corresponding to orthographic "r". RP is a non-rhotic accent but most speakers of it do pronounce orthographic "r" word-finally before a vowel: *It is a far‿away country*. It is known as **linking "r"**. Failure by students to pronounce it does not usually affect comprehension but may result in their sounding foreign.

As a further development and by analogy with linking "r", "r" is inserted before a following vowel even though there is no "r" in spelling. This "r" is known as **intrusive "r"**. The actual situation is that younger RP speakers do have it after [ə] as in *idea of, China and.*

It is said that nowadays in colloquial fluent speech there is a strong tendency towards **elision, reduction** and **assimilation.** This tendency is reflected in the pronunciation of the young generation: *tutor* ['tʃu:tə], *second year* ['sekəndʒɪə], *perhaps you* [pə'hæpʃu:], *gives you* ['gɪvʒu:], *as you know* [ǝzju: 'nǝʊ]; in the transcribed texts of British textbooks: *him* [ɪm], *he* [i:], her [ɜ·], *his* [ɪz], *can* [kn], *from* [frm], *than* [ðn], *them* [ðm], *some* [sm], *suppose* [spǝʊz], *have to* ['hǝftə], *usually* ['ju:ʒwəlɪ], *last time* ['la:staɪm], *and there was no one* [an ðǝr wz 'nǝʊ wʌn]; even in the traditional spelling: *C'm on, baby, Sorry 'bout that. Oh, le'mme see. Oh, I dunno. Must've put'em all together. Why d'you ask? What dja think? Alright!*

9. Combinative changes. Sound combinations [tj, dj, sj] are pronounced as [ʧ, ʤ, ʃ] respectively, e.g. *actual* ['æktjʊəl] — ['æktʃʊəl], *graduate* ['grædjʊəɪt] — ['grædʒʊeɪt], *issue* ['isju:] — ['ɪʃu:].

In the clusters of two stops, where the loss of plosion is usually observed, each sound is pronounced with audible release, e.g. *active* ['æktɪv] — ['æktɪv], *sit down* ['sɪt'daʊn] — ['sɪt 'daʊn].

Non-systematic Variations in RP Phonemes

Some free phonemes have appeared under the influence of the written image of words, their spelling.

Unstressed prefixes *ex-* and *con-* have gained orthographical pronunciation: *excuse* [ɪks'kju:z] — [eks'kju:z], *exam* [ɪg'zæm] — [eg'zæm], *continue* [kən'tɪnju:] — [kɒn'tɪnju:], *consent* [kən'sent] — [kɒn'sent].

The days of the week: *Sunday* ['sʌndɪ] — ['sʌndeɪ], *Monday* ['mʌndɪ] — ['mʌndeɪ].

Note also free variants in *often*: ['ɒfən] — ['ɒft(ə)n].

Other cases: *economics* [ˌɪkə'nɒmɪks] — [ˌekə'nɒmɪks].

Now by way of conclusion we would like to state that not all the changes are recognized as a norm by most affected advanced RP speakers. Some of these changes are quite stable, some tend to disappear. The language is a living body and its oral aspect is

most vitally changeable. But one should realize the importance of most recent developments, which, in opinion of many prominent phoneticians, may lead to radical changes in the whole inventory of vowel and consonant phonemes.

B. Regional Non-RP Accents of England

As was stated above, we grouped regional accents of England into southern and northern ones. This division is very approximate of course, because there are western and eastern accents but their main accent variations correspond either with southern or northern accentual characteristics. Thus we would like to point out here the main differences between southern and northern accents.

In vowels

One of the main differences between these groups of accents is in the phoneme inventory — the presence or absence of particular phonemes. Typically, the **vowel** [ʌ] does not occur in the accents of the north; e.g.

	South	*North*
blood	[blʌd]	[blʊd]
one	[wʌn]	[wɒn]
but	[bʌt]	[bət]

We can also note that many northern speakers while they do not have [ʌ] have [uː] rather than [ʊ] in words such as *hook*, *book*, *look*. They therefore distinguish pairs like *book* and *buck*, which in the south sound [bʊk] and [bʌk], in the North as [buːk] and [bʊk]:

	South	*North*
book	[bʊk]	[buːk]
buck	[bʌk]	[bʊk]

Another well-known feature which distinguishes northern and southern accents concerns the **vowels [æ] and [ɑː]**.

Before the voiceless fricatives [f, θ, s] and certain consonant clusters containing initial [n] or [m], [æ] is pronounced in the north instead of [ɑː].

	South	*North*
path	[pɑːθ]	[pæθ]
dance	[dɑːns]	[dæns]

N o t e: Speakers with more strongly regional southern substandard accents may not have the contrast or, at most, have a contrast that is variable.

In the south, however, [æ] is often pronounced as [ɑ:]:

	RP	*South*
bad	[bæd]	[bɑ:d]

A = [æ] in *path*
B = [ɑ:] in *path*
C = [æ] — [ɑ:] contrast absent or in doubt

One more major north — south differentiating feature involves the **final** [i:] like in words *city*, *money*, etc. In the north of England they have [ɪ]. In the south of England these words are pronounced with [i:], e.g.

	South	*North*
city	['sɪti:]	['sɪtɪ]
money	['mʌni:]	['mɒnɪ]

In consonants

It has been mentioned above that some English accents are "rhotic" or "r-full" and other are non-rhotic or "r-less". Rhotic accents are those which actually pronounce **[r]**, corresponding to orthographic "r" in words like *bar* and *farm*. This [r] sound is post-vocalic and is most often heard in Scotland, Ireland and in the southwest of England. The map on p. 264 shows the spread of post-vocalic [r] (A = post-vocalic [r] present, B = post-vocalic [r] absent).

In most regional accents the **glottal stop** is more widely used than in RP. In some areas, especially the north-east of England, East Anglia and Northern Ireland, the glottal stop may also be pronounced simultaneously with the voiceless [p, t, k], most strikingly between vowels: *pity* ['pɪt?i:].

Many non-RP speakers use **[n]** in the **suffix "-ing"** instead of [ŋ]; *sitting* ['sɪtɪn]. In an area of western central England which includes Birmingham, Manchester and Liverpool they pronounce [ŋg]: *singer* ['sɪŋgə], *wing* [wɪŋg].

Now about **[j]-dropping**. In most accents [j] is dropped after [t, s]: *student* ['stu:dənt], *suit* [su:t]. In parts of the north the change has progressed a good deal further, it has been lost after [θ]: *enthusiasm* [ən'θu:zɪəzm].

In large areas of eastern England [j] is lost after every consonant. In London [j] is lost after [n, t, d]: *news* [nu:z], *tune* [tu:n].

1. Southern English Accents

We now turn to an examination of regional non-RP accents of England and we shall first give a brief outline of the group of Southern accents.

As was stated above, educated Southern speech is very much near-RP accent whereas non-standard accents are very much near Cockney. Therefore we shall focus our attention on the rather detailed description of uneducated London accent — Cockney.

Cockney accent. It has been long established that Cockney is a social accent — the speech of working-class areas of the Greater London. Here are some pronunciation peculiarities of it.

In vowels

1. [ʌ] is realized as [æɪ]: *blood* [blʌd] — [blæɪd];

2. [æ] is realized as [ɛ] or [ɛɪ]: *bag* [bæg] — [bɛg], [bɛɪg];

3. [ɪ] in word-final position sounds as [ɨ]: *city* ['sɪtɪ] — ['sɪtɨ];

4. when [ɔ:] is non-final, its realization is much closer, it sounds like [o:]: *pause* [pɔ:z] — [po:z]; when it is final, it is pronounced as [ɔ:ə]: *paw* [pɔ:] — [pɔ:ə];

5. the diphthong [eɪ] is realized as [æɪ] or [aɪ]: *lady* ['leɪdɪ] — ['læɪdɪ], ['laɪdɪ];

6. RP [ɜʊ] sounds as [æʊ]: *soaked* [sɜʊkt] — [sæʊkt];

7. RP [aʊ] may be [æə]: *now* [naʊ] — [næə].

In consonants

1. [h] in unstressed position is almost invariably absent;

2. [ʔ] is widely spread in Cockney speech: *paper* ['pæiʔpə], *butterfly* ['bʌʔtəflaɪ];

3. The contrast between [θ] and [f] is completely lost: *thin* [fɪn], *booth* [bu:f];

4. The contrast between [ð] and [v] is occasionally lost: *weather* ['wevə];

5. when [ð] occurs initially it is either dropped or replaced by [d]: *this* [ðɪs], *them* [(d)əm];

6. [l] is realized as a vowel when it precedes a consonant and follows a vowel, or when it is syllabic: *milk* [mɪʋk], *table* [teɪbʋ]; when the preceding vowel is [ɔ:], [l] may disappear completely;

7. [ŋ] is replaced by [n] in word-final position: *dancing* ['da:nsɪn] or it may be pronounced as [ɪŋk] in something, *anything, nothing*: ['nʌfiŋk];

8. [p, t, k] are heavily aspirated, more so than in RP;

9. [t] is affricated, [s] is heard before the vowel: *top* [tsɒp].

2. Northern and Midland Accents

Midland accents, Yorkshire, for example, West Midland and North-West accents have very much in common with Northern ones. Therefore they are combined in this book into one group; peculiar realization of vowels and consonants will be marked, of course, when each subgroup is described separately.

1) Northern accents

The counties of northern England are not far from the Scottish border, so the influence of Scotch accent is noticeable, though there are of course many features of pronunciation characteristic only of northern English regions. The most typical representative of the speech of this area is Newcastle accent. It differs from RP in the following:

In vowels

1. RP [ʌ] is realized as [ʊ]: *love* [lʌv] — [lʊv];

2. RP final [ɪ] sounds like [ɨ]: *city* ['sɪtɪ] — ['sɪtɨ];

3. words like *dance, chance* which in RP have [ɑ:] are pronounced with [æ]: [dæns], [ʧæns];

4. [eɪ], [ɜʊ] are either monophthongs, or much narrower diphthongs than the ones in the south of England, or they may even sound as opening diphthongs [ɪe], [ʊo]: *bay* [be:], [bɪe], *plate* [ple:t], [plɪet], *boat* [bo:t], [bʊot];

5. words that have "al" in spelling — *talk, call, all,* are pronounced with [ɑ:]: [tɑ:k], [kɑ:l], [ɑ:l];

6. RP words with [ɜ:] are pronounced with [ɔ:] in a broad Tyneside accent: *first* [fɔ:st], *shirt* [ʃɔ:t]; so *first, forced; shirt, short* are homonyms;

7. [aɪ] is [ɛɪ]: *right* [rɛɪt];

8. words which in RP have [aʊ] may have [u:], e.g. *about* ['əbu:t].

In consonants

1. [l] is clear in all environments;

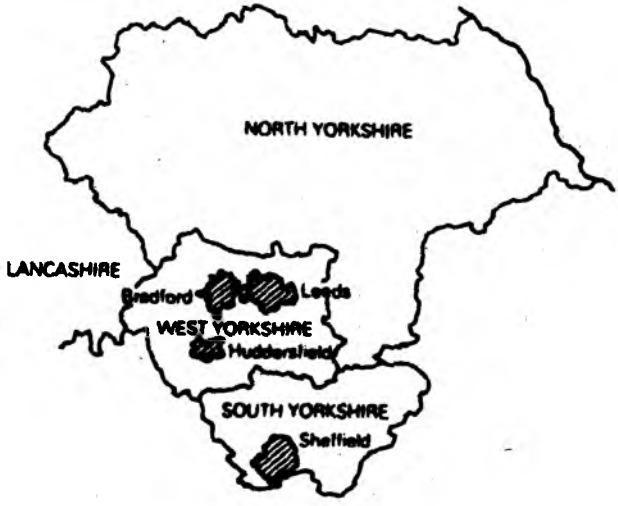
2. [h] is usually present in all positions;

3. *-ing* is [ɪn]: *shilling* ['ʃɪlɪn];

4. [p, t, k] between vowels are accompanied by glottal stop [ʔ]: *pity* ['pɪtʔɪ:];

5. in parts of Northumberland and Durham [r] may be uvular (in its production the tongue and the uvular, not the tongue and the alveolar ridge take part).

2) Yorkshire accents



Yorkshire and Bradford accents are identical with northern vowel features in points 1, 3, 4 (only many speakers pronounce words which have "ow", "ou" in spelling with [əʊ]: *know* [nəʊ]); with northern consonant features in point 3.

Now having accomplished the description of regional non-RP accents of England we would like to say that we didn't attempt to give a detailed account of all the regional differences in accents of remote rural areas. Rather we concentrated on urban accents which can be heard when one travels throughout the country and which are most likely to be encountered by foreign tourists. Intonational features were not dealt with.

II. Welsh English

As everyone probably knows Wales is a bilingual area. This speech situation in linguistics is known as exoglossic. In Wales English dominates over Welsh in urban areas, in the west and north-west of the country the balance being in favour of Welsh, where English is learnt at schools as a second language. At the moment nationalistic feelings are rather strong in Wales and we are witnessing a movement in favour of the revival of the Welsh language and its spread in all areas of Wales.

However, Welsh English at the level of educated speech and writing is not much different from that of English English. Most differences are found at the level of more localized dialects.

In this chapter we shall give a brief outline of Welsh English pronunciation standard.

The principal phonological differences between WE and RP are the following:

In vowels

1. The distribution of [æ] and [ɑ:] is as in the north of England. *Last, dance, chance*, etc. tend to have [æ] rather than [ɑ:].

2. unstressed orthographic "a" tends to be [æ] rather than [ə], e.g.: *sofa* ['so:fæ];

3. there is no contrast between [ʌ] and [ə]: *rubber* ['rəbə];

4. [ɪ] at the end is a long vowel: *city* ['sɪtɪ:];

5. in words like *tune, few, used* we find [iu] rather than [ju:]: *tune* [tiun];

6. [eɪ], [ɜʊ] may become monophthongs: *bake* [bɛ:k], boat [bo:t];

7. the vowel [ɜ:] as in *girl* is produced with rounded lips approaching [o:];

8. the vowels [ɪə], [ʊə] do not occur in many variants of Welsh English: *fear is* ['fi:jə], *poor is* ['pu:wə].

In consonants

1. W. E. is non-rhotic, [r] is a tap, or it is also called a flapped [r]. Intrusive and linking [r] do occur.

2. Consonants in intervocalic position, particularly when the preceding vowel is short are doubled: *city* ['sɪttɪ:].

3. Voiceless plosives tend to be strongly aspirated: in word final position they are generally released and without glottalization, e.g. pit [pʰɪtʰ].

4. [l] is clear in all positions.

5. Intonation in Welsh English is very much influenced by the Welsh language.

III. Scottish English

We must first make clear that the status of Scottish English is still debated. Some linguists say that it is a national variant. Others say that it is a dialect.

English has been spoken in Scotland for as long as it has been spoken in England. In the Highlands and Islands of northern and western Scotland, however, Gaelic is still the native lan-

guage of thousands of speakers from these regions. A standardized form of this language, known as Scots, was used at the court and in literature until the Reformation. Then it was gradually replaced by English. Incidentally a number of writers and poets of the likes of R. Burns retained their native language.

Nowadays educated Scottish people speak a form of Scottish Standard English which grammatically and lexically is not different from English used elsewhere, although with an obvious Scottish accent. We must admit, however, that non-standard dialects of Scotland still resemble Scots and in many respects are radically different from most other varieties of English. It is very difficult to understand them for students who learn RP.

At the moment there is currently a strong movement in Scotland for the revival of Scots. Nevertheless Scottish Standard English is still more prestigeous and in this book we concentrate on Scottish English as used and spoken by educated urban Scots.

As for the status of Scottish English, in this book it will be treated as a dialect though it is fair to say that there is much in favour of calling it a national variant of English.

Vowels

1. Since Sc. Eng. is rhotic, i.e. it preserves post-vocalic [r], vowels such as RP [ɪə], [ɜ:], [ɛə], [ʊə] do not occur:

	RP	*Sc. Eng.*
beer	[bɪə]	[bɪr]
bird	[bɜ:d]	[bɪrd]
hurt	[hɜ:t]	[hʌrt]
bard	[bɑ:d]	[bɑ:rd]
moor	[mʊə]	[mʊr]

2. Length is not a distinctive feature of Scottish vowels. So pairs like *pool — pull, cot — caught* are not distinguished. It should be noted, however, that vowels are longer in final stressed open syllables than elsewhere.

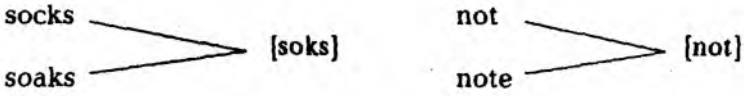
3. Monophthongs are pure, there is no trace of diphthongization with the exceptions of [aɪ — ɛɪ], [aʊ — ɛʊ] and [ɔɪ].

4. The RP [æ — ɑ:(ɑ)] distinction doesn't exist: *hat* [hat], dance [dɑ:ns].

5. [ɪ], [ʊ], [ʌ], [ə] may be central.

6. In non-standard Sc. Eng. accent [u:] often occurs when RP has [aʊ]: *house* [haʊs — hu:s]

7. It is interesting to mention that [ɒ] and [ɔʊ] may be not contrasted:



8. In very many regional accents *do, to* are pronounced as [də], [tə].

9. In some accents words such as *arm, after, grass* may have [ɛ] rather than [ɑ:]: *after* ['ɛftə].

Consonants

1. Sc. Eng. consistently preserves a distinction between [ʍ] and [w]: *which* [ʍɪʧ] — witch [wɪʧ].

2. Initial [p, t, k] are usually non-aspirated.

3. [r] is most usually a flap.

4. Non-initial [t] is often realized as glottal stop [ʔ].

5. [ɫ] is dark in all positions.

6. The velar fricative [x] occurs in a number of words: *loch* [lɒx].

7. *-ing* is [ɪn].

8. [h] is present.

9. A specific Scottish feature is the pronunciation of [θr] as [ʃr]: *through* [ʃru:].

Non-systematic Differences

Some words have pronunciation distinctively different from RP.

	RP	*Sc. Eng.*
length	[leŋθ]	[lenθ]
raspberry	['rɑ:zbrɪ]	['rɑ:sberɪ]
realise	['rɪəlaɪz]	['rɪʌlaɪz]
though	[ðəʊ]	[θo:]
tortoise	['tɔ:təs]	['tɔ:rtɔɪz]
with	[wɪð]	[wɪθ]

IV. Northern Ireland English

It should be stated first of all that English pronunciation standards in Northern Ireland and in the Republic of Eire are different. The explanation lies in history.

In the Middle Ages almost the whole of Ireland was Irish speaking. Nowadays, however, native speakers of Irish are few

in number and are confined to rural areas even though Irish is the official language of Ireland and is taught in schools. The English language in Southern Ireland was originally introduced from the West and West Midlands of England and still shows signs of this today. This kind of English has spread to cover most of the Irish Republic. Naturally the pronunciation of these areas retains features of western parts of England.

The English of northern parts of the island with its centre in Belfast has its roots in Scotland, as large numbers of settlers came to this part from the south-west of Scotland from the seventeenth century onwards. Now speaking about Northern Ireland, it is true to say that English here is not homogeneous. Areas of the far north are heavily Scots-influenced. Other parts are marked by less heavily Scots-influenced varieties of English. It is, of course, obvious that the language distinction is not coterminous with the political division of the Republic of Ireland and Northern Ireland, some areas of the Republic, Donegal, for instance, speak N. Ir. Eng. (Northern Ireland English), while some of the northern provinces speak S. Ir. Eng. (Southern Ireland English).

In this chapter we shall deal with Northern Ireland English pronunciation.

Vowels

The vowel system is similar to that of Scottish accents, post-vocalic retroflex frictionless sonorant [r] being used as in Scotland.

[ɪ]: *pit* [pɪt], *fir* [fɪr], *bird* [bɪrd], *city* ['sɪtɪ], *fern* [fɪrn], *fur* [fɪr];
[iː]: *bee* [biː], *beer* [biːr], *seedy* ['siːdiː], *meet* [miːt], *meat* [miːt];
[e]: *pet* [pet], *bed* [bed];
[ɛ]: *bay* [bɛ], *bear* [bɛr], *plate* [plɛt], *weight* [wɛt];
[ʌ]: *but* [bʌt];
[a]: *pat* [pat], *bard* [bard], *hat* [hat], *dance* [dans], *half* [haf];
[ʊ]: *put* [pʊt], *boot* [bʊt], *pull* [pʊl], *pool* [pʊl], *poor* [pʊr];
[o]: *boat* [bot], *board* [bord], *pole* [pol], *knows* [noz], *nose* [noz], *pour* [por], *pore* [por];
[ɔː]: *paw* [pɔː], *doll* [dɔːl], *pause* [pɔːz];
[ɒ]: *cot* [kɒt];
[aɪ]: *buy* [baɪ], *tide* [taɪd];
[aʊ]: *bout* [baʊt];
[ɔɪ]: boy [bɔɪ].

The following notes on vowels should be read in association with the list above.

The actual realization of a vowel may vary considerably according to the following phoneme:

1. in words like *bay, say* the vowel is a monophthong [ɛ], preconsonantally it may be a diphthong of the type [ɛə — ɪə]: *gate* [gɪət];
2. [ɪ], [ʊ] are fairly central;
3. [ɔ:] and [ɒ] contrast only before [p, t, k];
4. [aɪ], [aʊ] are very variable;
5. realization of [ɑ:] may vary considerably.

Consonants

1. [l] is mainly clear;
2. intervocalic [t] is often a voiced flap [ɾ]: *city* ['sɪɾi:];
3. between vowels [ð] may be lost: *mother* ['mɔ:ər];
4. [h] is present.

AMERICAN-BASED PRONUNCIATION STANDARDS OF ENGLISH

American English

The American variant of English has been very thoroughly described by many prominent scholars both in this country and in the USA. In this book, however, we shall try to follow the conception introduced by A.D.Shweitzer in his sociolinguistic approach to the treatment of contemporary speech situation in America (38).

The sociolinguistic situation in the United States is very complicated. It is moulded by certain linguistic, cultural, historic, demographic, geographic, political and other factors.

Generally speaking, the situation in the USA may be characterized as exoglossic, i.e. having several languages on the same territory, the balance being in favour of American English.

It is true, of course, that the formation of the American Standard underwent the influence of minorities' languages, but its starting point was the English language of the early 17th century. However, time has passed, American English has drifted considerably from English English though as yet not enough to give us ground to speak of two different languages. Thus we speak of the national variant of English in America.

American English shows a lesser degree of dialect than British English due to some historical factors: the existence of Standard English when first English settlers came to America, the high mobility of population, internal migrations of different communities and so on. As regards pronunciation, however, it is not at all homogeneous. There are certain varieties of educated American speech. In the USA three main types of cultivated speech are recognized: the Eastern type, the Southern type and Western or General American.

1. **The Eastern type** is spoken in New England, and in New York city. It bears a remarkable resemblance to Southern English, though there are, of course, some slight differences.

2. **The Southern type** is used in the South and South-East of the USA. It possesses a striking distinctive feature — vowel drawl, which is a specific way of pronouncing vowels, consisting in the diphthongization and even triphthongization of some pure vowels and monophthongization of some diphthongs at the expense of prolonging ("drawling") their nuclei and dropping the glides.

3. The third type of educated American speech is **General American (GA)**, also known as Northern American or Western American spoken in the central Atlantic States: New York, New Jersey, Wisconsin and others. GA pronunciation is known to be the pronunciation standard of the USA. There are some reasons for it. GA is the form of speech used by the radio and television. It is mostly used in scientific, cultural and business intercourse. Also in two important business centres — New York and St. Louis — GA is the prevailing form of speech and pronunciation, though New York is situated within the territory where Eastern American is spoken, and St. Louis is within the region of Southern American. In this chapter we shall give an outline of GA accent. We will then point to differences between this accent and RP.

Vowels

1. There is no strict division of vowels into long and short in GA, though some American phoneticians suggest that certain GA vowels are tense and likely to be accompanied by relative length: [i:] in *seat*, [u:] in *pool*.

They also admit that a slight rise in tongue position during the pronunciation of tense vowels leads to a diphthongal quality

of tense vowels which contrasts to a monophthongal quality of lax vowels.

2. Classification of vowels according to the stability of articulation is the most controversial subject in GA. Some diphthongs are treated in GA as biphonemic combinations. The inventory of GA diphthongs varies from three to twelve phonemes. Following D.A.Shakhbagova (73) we distinguish here five diphthongs in GA: [eɪ], [aɪ], [ɔɪ], [aʊ], [oʊ].

3. Another very important feature that causes different interpretations of diphthongs and vowel length in GA is the pronunciation of [r] sound between a vowel and a consonant or between a vowel and a silence: *turn* [tɜ:ʳn], *bird* [bɜ:ʳd], *star* [stɑ:r].

It has been estimated that 2/3 of American population pronounce [r] and 1/3 omit it. Thus GA is rhotic in words like *far*, *core*, etc. (when [r] follows the vowels and ends the word), this sound is consonantal and non-syllabic according to Ch. Thomas. It involves the characteristic hindering of the free flow of breath which we associate with consonants. The sound [r] in *far* closes the syllable more definitely than in British Received Pronunciation of the word [fɑ:]. On the other hand, there is a vocalic, or vowel-like and syllabic [r], that occurs in words like *bird*, *murmur* (after a vowel and before a consonant). Ch.Thomas writes that in such cases we should better transcribe the words *bird* and *murmur* like [brd] and [mrmr]. In such cases [r] is responsible for the characteristic vowel-like quality within the syllable; it is responsible for syllabic quality as well. That's why Ch.Thomas says that [r] syllabic in *bird* and [r] non-syllabic in *far* should be transcribed differently. According to V.A.Vassilyev it is still the vowel of the word that forms a syllable ([ɜ:] in *bird*, [ɔ:] in *corn*, etc.), not the syllabic [r] sound. He mentioned although that all the vowel sounds in pre-[r] position sound more like [ə]. [r] gives the preceding vowel a retroflex colouring. It means that the tip of the tongue glides to the retroflex position without, however, staying there long enough to produce a full-fledged retroflex [r] sound. [r] also prolongs the vowel a little. V.A.Vassilyev uses the term "[r]-compensating" vowels (suggested by A.L.Trakhterov) for the vowels in such words in British Received Pronunciation.

4. One more peculiar feature of pronunciation of vowels in American English is their nasalization, when they are preceded

or followed by a nasal consonant (e.g. in such words as *take, small, name*, etc.). Nasalization is often called an American twang. It is incidental and need not be marked in phonemic transcription.

5. GA front vowels are somewhat different from RP. Vowels [iː], [ɪ] are distributed differently in GA and RP.

In words like *very, pity* GA has [iː] rather than [ɪ]. In word final position it is often even diphthongized.

Vowel [e] is more open in GA. It also may be diphthongized before [p], [t], [k]: *let* [leᵊt].

6. There are four mixed or central vowels in GA: [ɜ], [ə], [ʌ], [a]. They differ markedly from RP vowels in articulation and distribution.

7. The three RP vowels [ɒ], [æ], [ɑː] correspond to only two vowels in GA — [a] and [æ]. This combined with the articulatory differences between RP [ɒ] and GA [a] and a difference in vowel distribution in many sets of words makes it very complicated. The following chart vividly shows it:

	RP	*GA*
Dad	[æ]	[æ]
dog	[ɒ]	[a]
path	[ɑː]	[æ]
dance	[ɑː]	[æ]
half	[ɑː]	[æ]

Besides, word distribution of [ɔː], [ɒ] in RP and GA is completely different. GA [ɔ] is intermediate in quality between the RP [ɔː] and [ɒ]. In its production the lips are considerably less rounded.

8. Now to the qualities of GA diphthongs.

a) the diphthong [eɪ] is closer in GA as opposed to RP;

b) very front realization of [ɜʊ] such as in RP is not found in GA;

c) the nucleus of [aʊ] tends to be more advanced in GA;

d) since GA is a rhotic accent with non-prevocalic [r], it has the consequence that the following RP vowels (derived historically from vowel + [r]) do not occur in GA: [ɪə] in *dear* — GA [dɪr], [ɛə] in *dare* — GA [deɪr], [ʊə] in *tour* — GA [tur].

Consonants

1. The RP allophonic differentiation of [l] does not exist in GA. In all positions [l] is fairly dark.

2. Intervocalic [t] as in *pity* is most normally voiced. The result is neutralization of the distribution between [t] and [d] in this position, i.e. *latter, ladder*. The original distinction is preserved through vowel length with the vowel before [t] being shorter.

In words like *twenty, little* [t] may even drop out. Thus *winner* and *winter*, for example, may sound identical.

3. GA [r] is articulated differently from RP one. The impression is one of greater retroflexion (the tip of the tongue is curled back further than in RP).

4. The "wh" spelling is represented in GA by [ʍ] sound (or sometimes transcribed as [hw]. So most American speakers make a clear distinction between "wh" and "w" words: *where — ware, which — witch.*

5. The sonorant [j] is usually weakened or omitted altogether in GA between a consonant (especially a forelingual one) and [u:] as in the words: *news* [nu:z], *Tuesday* ['tu:zdɪ], *student* ['stu:dənt], *suit* [su:t], *tube* [tu:b], *stupid* ['stu:pɪd], *during* ['du:rɪŋ].

Non-systematic Differences between General American and Received Pronunciation

A. 1. Many differences involve the pronunciation of individual words or groups of words. Here are some of these:

	RP	*GA*
Asia	['eɪʃə]	['eɪʒə]
cordial	['kɔ:dɪəl]	['kɔrjəl]
either	['aɪðə]	['i:ðər]
leisure	['leʒə]	['li:ʒər]
lever	['li:və]	['levər]
schedule	['ʃedju:l]	['skedjəl]
shone	[ʃɒn]	[ʃoun]
tomato	[tə'mɑ:təu]	[tə'meɪtoʊ]
vase	[vɑ:z]	[veɪz]

2. Words *apparatus, data, status* can be pronounced with either [æ] or [eɪ] in GA, but only with [eɪ] in RP.

3. Words like *hostile, missile, reptile* have final [aɪl] in RP. In GA they may have [əl].

B. Stress Differences

1. In words of French origin GA tends to have stress on the final syllable, while RP has it on the initial one:

	RP	*GA*
ballet	['bæleɪ]	[bæ'leɪ]
beret	['berɪ]	[bə'reɪ]

2. Some words have first-syllable stress in GA whereas in RP the stress may be elsewhere.

	RP	*GA*
address	[ə'dres]	['ædres]
cigarette	[sɪgə'ret]	['sɪgərət]
magazine	[mægə'ziːn]	['mægəzɪn]
research	[rɪ'sɜːʧ]	['rɪsəʧ]
adult	[ə'dʌlt]	['ædʌlt]
inquiry	[ɪŋ'kwaɪərɪ]	['ɪŋkwaɪərɪ]

3. Some compound words have stress on the first element in GA and in RP they retain it on the second element: *weekend, ice-cream, hotdog, New Year.*

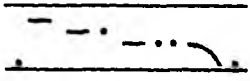
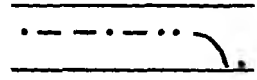
4. Polysyllabic words ending in *-ory, -ary, -mony* have secondary stress in GA, often called "tertiary": *laboratory* ['læbrəˌtɔrɪ], *dictionary* ['dɪkʃəˌnerɪ], *secretary* ['sekrəˌterɪ], *testimony* ['testɪˌmounɪ].

C. Intonation Differences

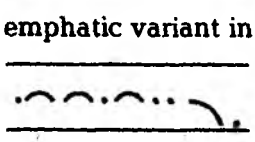
GA intonation on the whole is similar to that of RP. But there are, of course, some differences that should be mentioned here.

1. In sentences where the most common pre-nuclear contour in RP is a gradually descending sequence, the counterpart GA contour is a medium Level Head:

I don't want to go to the theatre.

RP  GA 

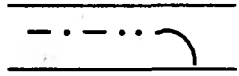
Its emphatic variant in Mid-wavy-level Head:

GA 

2. The usual Medium or Low Fall in RP has its rising-falling counterpart in GA:

Come and see me tomorrow.

RP 

GA 

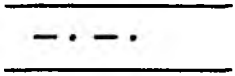
3. The rising terminal tone in RP in GA has a mid-rising contour:

Do you like it?

RP 

GA 

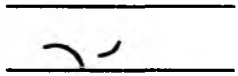
Or it may have a level tone in GA:



4. The Fall-Rise nuclear tone is different in RP and GA:

Really?

RP 

GA 

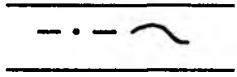
These comparisons show that the main differences in intonation concern the direction of the voice pitch and the realization of the terminal tones. In GA the voice doesn't fall to the bottom mostly. This explains the fact that the English speech for Americans sounds "affected" and "pretentious" or "sophisticated". And for the English, Americans sound "dull", "monotonous", "indifferent".

It should also be mentioned that the distribution of terminal tones in sentence types is also different in both variants of English.

1. GA "Yes, No" questions commonly have a falling terminal tone; the counterpart RP tone would be a rising one:

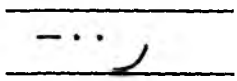
Shall we stay here?

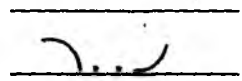
RP 

GA 

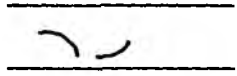
2. Requests in RP are usually pronounced with a Rise, whereas in GA they may take a Fall-Rise:

Open the door.

RP 

GA 

3. Leave-takings are often pronounced with a high-pitched Fall-Rise in GA:

Good night. 

In conclusion we would like to say that American phoneticians use a pitch contour system to mark intonation in the text:

It's a \very 'cold ,day. It's a very cold ⌈day.\

→Will you ,come? Will you ⌈come?

It is certain that we have not covered here all the cases of different intonation structures used in RP and GA. Recently there have appeared in this country several papers and books on the subject, so for further information see those books.

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