

LINGUISTICS

An Introductory Course for I.K.I.P. Undergraduates .

**A Thesis
Presented to
The Department of English
Sanata Dharma
Teachers Training Institute**

**In Partial Fulfilment
of the Requirements of the
Sarjana Degree**

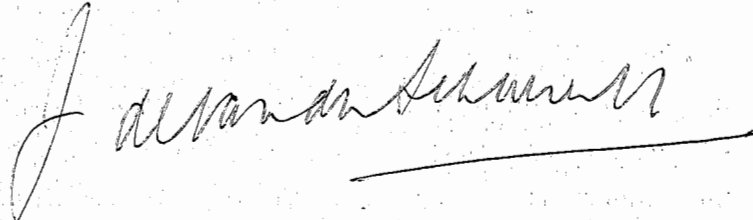


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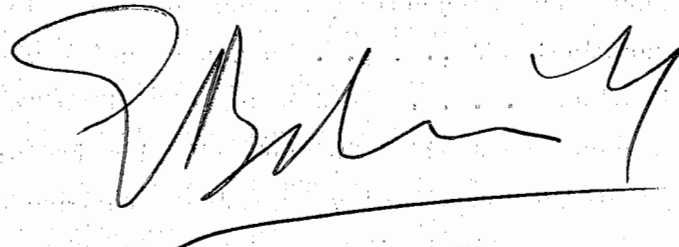
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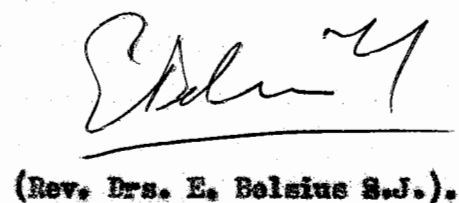
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PREFACE .

The purpose of the thesis that is being presented here is to give a simple but overall picture of the science of language or linguistics. Languages have always been taught; the IKIP students of a language department are being prepared for this task. We can imagine and take it for granted that a scientific study of the subject being taught is necessary both for the effectiveness of their later teaching and the interest in their own subject. The matter which the study of language covers is wide; the majority of books written on linguistics need specific and detailed training for their proper understanding. The personal experience of the writer when attending lectures on linguistics evoked the idea of collecting together a certain body of basic materials which would give the IKIP student a general view of what linguistics is. The latter would then be able to place and appreciate the subject as a whole in his general training and formation, as well as to see the particular value and place of that particular branch of linguistics which is being presented to him in his lectures. He might even be stimulated to read and study further on his own when he has understood some of the general ideas presented in the individual chapter of this work. The reading of books suggested for further study would, it is hoped, be somewhat simplified .

With this purpose in mind, the writer has divided up his material in a number of chapters, beginning with a more general view and, after some historical insights, arriving at what is now held as the parts and methods of the study. A final chapter tries to justify the purpose of the whole for the actual needs of the language teacher.

The first four chapters of this work deal with various aspects of linguistics. Chapter I gives a general description of language and linguistics with the stress on the nature of the former and its characteristics as well and the scientific property of the latter. Chapter II is concerned with the developments and changes of language study of various periods and with the way language study achieved its scientific status of today. The different ways which show how linguists cope with various linguistic phenomena are presented briefly in chapter III, while chapter IV deals with the general methods of linguistics analysis which has a somewhat direct importance in the teaching of languages. The last chapter, chapter V, as a

sort of conclusion, present the way linguistics assists the teaching of languages, especially the foreign ones. This can be of some use in the teaching of English in Indonesia.

The writer is well aware of the inadequacy of his work. This is due to his own knowledge; but he has also realized as work on his thesis proceeded that it was difficult to put sufficiently and clearly in few but simple words the basic facts of the chapters he was to write about. And also because of this fact he was stimulated to continue his work and present something which might help his fellow students.

The writer wishes to express his sincerest gratitude to the Rev. Father F. de van der Schaeren S.J., M.A., the lecturer of linguistics in the English Department of I.K.I.P. Sanata Dharma, for his invaluable helps in the form of patient guidance and support, constant encouragements and valuable suggestions which enabled the writer to get through many difficulties. This work would not have materialized without him.

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CHAPTER I. LINGUISTICS AND LANGUAGE.

Men, as social beings, use a particular means by which they can communicate with each other. This means of communication is indispensable to them. In carrying out their everyday affairs they always use this means in one form or another. This means, popularly termed as language, is natural to them that they take its existence for granted. They make use of that means as a tool, while at the same time they are strongly influenced by it; it can therefore serve as a distinctive characteristic which distinguishes them from other beings. Language makes possible society and culture that man alone is capable of. This very important means of communication, since it is too deeply embedded in man's social everyday life, has become so accepted that it gets usually no serious or, even more, scientific consideration from man himself anymore.

It is only during these last 100 years or so that men have again tried to study language in a serious and scientific manner. After many years of scientific effort they are finally able to present, in an empirical way, various insights on language, different from those which resulted from popular beliefs formerly held.

This science of language, called linguistics, is the subject to which our first chapter will be devoted. In this chapter we will try to obtain a clear picture of that science, why it is different from other language studies and how it differs from them. Since the term "language" draws diversified ideas from different persons, it is in this first chapter too that we make an effort to give the essential ideas on language, which is the subject that linguistics tries to investigate scientifically. Therefore the first chapter will also deal with what linguists, i.e. people who carry out this scientific study of language, mean by language, what its characteristics are, and how it differs from other means of communication.

The General Idea of Language .

As has been said before, the word "language" will evoke different ideas. Zoologists may say that it is the means by which animals communicate; psychologists, sociologists and anthropologists may say that it is the words which are arranged together to convey meaning. From our experience we are also familiar with such terms as the language of sport, the language of music, the language of medicine and so on.

These different ideas, nevertheless, have one thing in common. In them there is always implied the ideas of a signalling system used for communication, no matter whether it is used by animals, human beings in general, musicians, sportsmen or doctors. That is the central idea of "language", namely a signalling system used in communication

in which ideas are brought over from one individual to another or in which two or more individuals are able to cooperate or interact with each other. Signalling systems using signs can be used in some communication function, whether these latter be restricted or not. This restricted function we might illustrate by the language of chess, for instance, where reference is only made to possible moves of the pieces on a chessboard. Broad function would be that of language which "rather exhaustively catalogues the things, events and processes in the human environments." (Carroll: 6, p. 11). Language is therefore a signalling system; its peculiarity as such is now further noted. Thus in the signalling systems for communication, human language is also included.

C.F. Hockett, a modern linguist, has analyzed the possible properties to be found in signalling systems for communication. (17 p. 575). They are seven in number, and listed as follows:

- a. Duality, which means having elements and systems by which those elements are arranged into larger constructions.
- b. Productivity, namely having a capacity for the users to produce new arrangements of elements which will be understood by other users of the system.
- c. Arbitrariness, having no geometrical similarity between the signals used and the things they represent.
- d. Interchangeability, i.e. that the users of any of these systems are capable both of sending off and of receiving the ideas through the use of those signals.
- e. Specialization, that the response in the form of sending back ideas by the use of the signalling system is different from the physical to the ideas transmitted through the use of the signalling system. Thus the signalling system is specialized.
- f. Displacement. It is the capacity for producing messages removed in time and place of transmission from the key features in their antecedents and consequences.
- g. Cultural Transmission, i.e. the property of being learnt by new users and not transmitted genetically.

Individually, these properties might occur in all communicative systems, only in one system, however, do they occur as a set. This one communicative system, which has these seven important properties, is that which is used by human beings in their communication with each other. Human language therefore, as that particular communicative system is called, is the most complete of all the communicative systems.

In our further discussion, therefore, what we mean by language is that system which is used by human beings in their everyday communication and which has these seven characteristics. This language is

capable of being investigated scientifically; linguistics is the science which studies it in a scientific way.

Before we proceed further with our discussion on language, we propose to look first into this scientific study of language - linguistic science or linguistics.

Linguistics - The Scientific Study of Language.

The word "linguistics" is a combination of the word "lingua" with an "-ics" ending. The word "lingua" is of Latin origin and means "language". The ending "-ics" implies the general word "science", that is the scientific study of that subject to which this suffix is added. Thus "linguistics" means the scientific study of language. Such combinations between a word and an "ics" suffix are also found in other names of studies such as physics, economics, and mathematics.

We can obtain more information by examining definitions of linguistics as set up by various experts on this scientific study of language. The scientific feature of linguistics separates this study from other language studies because the latter lack that character or do not follow it in the most consistent way.

A. Martinet in his "Elements of General Linguistics" (23, p. 15) says that

"Linguistics is the scientific study of human language."

He goes on to explain explicitly that a scientific approach, founded on the impartial observation of facts, differs from a prescriptive approach which chooses among the facts in the light of some aesthetic principles and which recommends certain modes behaviour or conduct.

An American linguist, Charles C. Fries, gives clearer ideas by presenting a rather exhaustive definition of linguistics. He says in his "Linguistics and Reading" (11, p. 92) that

"Linguistics is a body of knowledge and understanding concerning the nature and functioning of human language, built up out of information about the structure, the operation and the history of a wide range of very diverse human languages by means of those techniques and procedures that have proved most successful in establishing verifiable generalizations concerning relationships among linguistic phenomena."

This definition gives details on what aspects of human language are being studied and on how linguistics deals with these aspects.

The last definition which will be stated below will not reveal further new details. It will only show that linguists share a common opinion on what is meant by linguistics. We will use the definition of John B. Carroll from his book "The Study of Language" (8, p. 11) Carroll says

"Linguistics is the scientific enterprise of investigating the languages and dialects which are in use or have been used by various speech communities throughout the world."

These three definitions of linguistics reveal to us the fact

that linguists share a common opinion on the two aspects of linguistics namely - that it is a scientific study,
- that it studies human language.

Therefore the shortest definition of linguistics will run as follows:

"Linguistics is the scientific study of language."

We are now going to look further into the two main aspects of linguistics - a scientific study,
- human language.

What is a Scientific Study ?

This is the next question which we will try to answer. In order to be called scientific, a study must fulfil certain requirements all scientific studies have to follow in the process of their investigation. The following ideas are borrowed from W. Nelson Francis (8, chapter I). These requirements in the procedure are

a. Subject Matter .

The first step in a scientific study is the deciding on the subject matter which is going to be dealt with.

It must consist of a coherent body of facts, entities or events separated from other facts, entities or events. The subject matter should be able to stand by itself, meaning that it is not a part of what another study is investigating. The separation is achieved through a consistent and stable definition. But is it possible to do such a thing in real practice ?

In daily life, activities, events or facts are intermingled with each other. They are so closely interrelated that we will not find one which stands by itself as a single feature uninfluenced by, or overlapping with, or not related to the others. This renders it impossible for us to produce the subject matter of a scientific study as a real entity or a body of entities really separated from others. In fact this is an impossible thing to do, but unnecessary as well. Among those mingled and interrelated facts, events or entities we are still able to perceive some uniqueness which will enable us to determine our subject matter. This is what we will do. We collect these features, characteristics and uniqueness to form a certain body in which we are interested in our study.

b. Careful Objective Description .

When one has established the subject matter, the next step to undertake is to make careful objective descriptions through a close and unprejudiced scrutiny and an accurate recording. This also requires a particular attitude of those doing the research towards the subject: the objective attitude.

We make observations on the subject matter. This must be carried out in such a way that only the facts of the subject matter are observed. The person of the observer must not enter into the investigation

so the personal colouring can be avoided. The results of the observations are then recorded. All this, of course, does not mean that this second step is simple and can be carried out haphazardly. Certain methods and systems of observation should be followed and technical instruments must be used.

The objectivity of the descriptions here means that the results of the observations must conform to a certain standard and should be verifiable as well. Conformity to a certain standard means that the result of the observation must fulfil certain criteria. The verifiability of the description means that if another investigator makes a study along the same line as the producer of the description, he will have similar results.

The methods and systems of investigation used must be those which are already accepted as standards, or, if they are new, they should be put under a rigorous test to ensure their ability to produce objective results. The use of technical instruments helps the investigator in presenting his descriptions because of two reasons which here follow.

1. That they help him keep out subjective elements as much as possible. The observer's feeling, opinion, and other personal elements tend to play some role in his work. Technical instruments prevent this personal interference to dominate the course of investigation. They help the observer eliminate the subjective elements as much as possible.

2. That technical instruments help the observer in ^{the} recording of the observation because of their practicability, consistency, and reliability.

Even if the above points are already followed in the course of investigation it is important for the observer to check and recheck his findings before he presents his final conclusion. This is to ensure, as far as possible, the validity and reliability of his presentation.

c. Generalizations .

The result of the observation will consist of a great bulk of facts about the subject matter. This is the cumbersome but complete description of the subject matter that the observer has at the end of the second step. This bulk of facts must be simplified to make it presentable.

It is in this third step that the simplification is carried out ; and this step is called "generalization".

Some of the facts which have been gathered are similar or inter-related. These facts can be represented by a new one, which is the generalization of these similar or interrelated ones. All of the gathered facts are then simplified in this way. This should be done tentatively and rigorously, checking and rechecking the conclusions against all available pertinent data. Only after it has been discovered that those

conclusions hold against all available data, are these rendered as final. All the available facts are dealt with in the same way, so that, from these, all generalization on the subject matter are obtained. This is carried out inductively.

After the process of sorting, compiling and generalizing all the facts the observer proceeds to rearrange the obtained generalizations into an orderly and systematic way, showing the patterns and the relationships found in the subject matter.

d. Predictions .

It is impossible, and unnecessary as well, to make observations on the whole subject matter. A representative part of the subject matter may serve for the purpose. Thus not all information on the subject matter is used in producing generalizations. The observer uses only the available ones. This necessitates a further step to make these generalizations capable of being applied to all facts of the subject matter, both to the ones collected by the observer and to the ones which are outside observation. The application of these generalizations to the outside facts is the next step in this scientific procedure. It is the making of predictions which will be carried out. The generalizations are tested for that part of the subject matter not used in the gathering of the data, to find out whether they conform to the whole subject matter or not. If they do not conform these generalizations should be revised.

e. Laws .

Most generalizations should conform with the subject matter, otherwise there must be something wrong in the previous step, either in the collecting of the data or in the making of the generalizations. If the conformity between the generalizations and the subject matter has already been established, the former can be regarded as laws, namely as statements of predictable behaviour. This is the last step in procedure of a scientific investigation - the establishing of the laws.

A scientific study should follow these above requirements, and, although it has fulfilled its task when it has produced laws upon which accurate prediction may be based, it should constantly redefining its subject matter, refining its observations, retesting and revising its generalizations. All of these is done to get as accurate an investigation as possible. Most scientific studies even go beyond these mere procedures by occupying itself with the practical application of its discoveries.

The Scientific Study of Language .

As we see above linguistics claims to be scientific: it must conform to these five scientific requirements.

If we have a look at what linguists have done and produced we

will see that the claim is really justified. We propose to examine linguistics in the light of those scientific points given above.

a. Subject Matter .

Linguists have succeeded in separating the body of facts, events and entities which can be labelled "language". They have set it apart from the subject matter of other studies, and as we will perceive later, they have defined language in the most stable and concise manner. We will further examine language as the subject matter of linguistics, in our discussion on the second main points of linguistics: human language. It is sufficient, at present, to say that language, as defined by linguists, is already capable of being put under a scientific investigation.

b. Careful Objective Description.

Linguists gather data on language by examining and comparing actual manifestations of language. They observe the language phenomena which really occur. This is carried out impartially without choosing and picking among the facts in terms of certain aesthetic, personal or moral principles. Their approach is neither prescriptive nor normative, meaning that they do not prescribe beforehand that certain linguistic phenomena must occur or that certain linguistic aspects must be used by the speakers of the language. Their systems and methods of investigation have already proved to be scientifically efficient. Many technical instruments, such as the tape recorder, palatogram, laryngoscope and the like help them in recording their observations and in doing some of the observations as well.

c. Generalizations.

The results of the observations as the actual manifestation of language are then rearranged and simplified into an orderly and systematic arrangements of generalizations which shows the relationships of the elements within language. So far linguists have discovered almost all the facts of language, and these have already been put into generalizations. These below are the generalizations that have been made:

1. Statements about the systematic selection and arrangements of significant sounds or groups of sounds actually used by native speakers.
2. Statements about the changes which have occurred in specific languages in the past.
3. Statements about the genetic and other relationships between languages both at present and in the past.

d. Predictions .

The generalizations which linguists made are then applied to the other side of language which is not observed in the gathering of the data. The prediction will be that the use of certain sounds or sequences of sounds in the patterns made in the generalizations will draw predictable

responses from the speakers of the language.

e. Laws .

Linguists have discovered some laws, such as the one on the change of sounds, called the law of phonetic changes. They will also be able to make laws on the particular language they investigate, such as statements about the patterning of sounds in that language, the arrangements of those patterns of sounds into larger constructions and the like.

Linguistics, the scientific study of language, is different from other language studies; the latter can be grouped into either non scientific or unscientific language studies. We will now examine in what respect linguistics differs from these two other studies.

Most non scientific studies follow rigorous methods, as linguistics does, but their materials are not purely empirical.

Different from non scientific and scientific studies, unscientific studies tackle the problem with unscientific methods. Although the material is purely empirical, in language for instance, most of them assume the normative or prescriptive attitudes and base their methods on meaning. But meaning, in language, covers the whole experience of man; and feeling, emotion and other psychological aspects influence it strongly. Therefore a study of language based on meaning will only be far from objective. *cannot be*

Language.

Language as the second main point in linguistics will be discussed next. As we have seen before, human language is the most complete means of communication because it possesses all the seven characteristics found in all systems of communication.

What we are going to do now is to examine the definitions of language both from the popular and the scientific point of view. If any ordinary person is asked what a language is, he will give the answer by referring to a certain authority, either a grammar book, a dictionary or an encyclopaedia which he feels convincing; he holds the opinion that such an authority always provides correct answers. Unfortunately these kinds of authoritative works are generally the product of either a non scientific or an unscientific study of language.

In the definitions of language as provided by linguists the case is different. A careful, objective and meticulous study backs these definitions so that they are scientifically sufficient to give the real picture of language. In order to see how these linguists arrived at the scientific description of language, we are going to have a look at the two branches of linguistics directly concerned with this presentation, namely General linguistics and Descriptive linguistics.

Descriptive linguistics is the study of language in the descrip-

tive way. It reveals various facts about language, which are then accounted for in General Linguistics. As the language study proceeds the amount of language features found grow. From these account, linguists draw conclusions and set up the definition of language.

Although different linguists framed their language definitions differently, most of these definitions contain the main characteristics of language and its function as well.

Edward Sapir, who with Leonard Bloomfield pioneered the modern linguistics in America, says in his book "Language" (27,p.8.),

"A language is a purely human and non instinctive method of communicating ideas, emotions and desires by means of a system of Voluntary produced symbols. These symbols are, in the first instance, auditory and they are produced by the so called organs of speech."

From this definition, language is shown to be purely human, non instinctive and primarily speech. As a system, language functions as a means of communication.

"A language is a system of arbitrary vocal symbols by which members of a social group cooperate and interact."

This definition is stated by E. Sturtevant (31,p.2) and has a close resemblance with the one presented by an author named Brennan which runs as the following:

"A language is a vocal signalling system composed of arbitrarily chosen symbols and patterns man uses to organize society and build his culture."

These two definitions add more to the characteristics of language discovered by linguists, namely that language is systematic, arbitrary and made up of vocal symbols. Again these definitions of language state its function i.e. a means of communication.

An examination of two other definitions of language will confirm the opinion that linguists have found out its essential features necessary for them to make language their subject of study. John B. Carroll says, (6,p.13)

"A language is a structured system of arbitrary vocal sounds and sequences of sounds which is used, in interpersonal communication by an aggregation of human beings, and which rather extensively catalogues the things, events and processes in the human environments."

There is nothing new about language in this definition. It merely gives more explanation of what have already been mentioned by previous linguists. Almost similar to that of Sturtevant is the language definition by W. Nelson Francis. (8,p.13)

"A language is an arbitrary system of articulated sounds made up of by a group of humans as a means of carrying on the affairs of their society."

In all these definitions of language we see the main features of language from the scientific viewpoint. They always stress the function of language i.e. as a means by which men cooperate and interact.

They also show that language is a system of vocal symbols which are arbitrary and are exclusively human.

Returning to the subject of linguistics dealt with earlier, we see that the linguist has limited his field of inquiry. He is not interested in the content of the communication but in the vehicle; not in the what of language but in the language system. Further, questions as to the mechanisms whereby human beings can use linguistic symbols, and the motivations for doing so are left to the other disciplines. Finally, attention has been narrowed to language as a system of spoken communication.

General linguistics is interested in those features of language which are discovered in language as such. These features of language found empirically to characterize all human languages, and which are susceptible of exact empirical definition are

- meaningfulness,
- sound,
- arbitrariness,
- systematization, and
- completeness.

A closer look at each of these characteristics will clarify our picture of language.

a. Language is Meaningful.

As a means of communication language is the medium with which ideas are produced and recognized. Utterances, words or sequences of words always contain ideas. They have meanings. Therefore a linguistic item is always related to a non linguistic element; either it represents a certain object or evoke certain ideas.

Three kinds of meaning are distinctive in a language:

1. Notional meaning, namely ideas, concepts, images, and feelings that words evoke in the mind.
2. Referential meaning, i.e. objects, relationships, classes of objects or of relationships referred to by words.
3. Structural meaning, i.e. the particular reference of words in particular structures.

b. Language is Sound.

A language consists of a set of sounds produced by the human vocal organs. It is the most complete and efficient tool by which ideas are expressed, because, through systematic arrangements, sounds can be manipulated in almost any limitless way. Vocal sounds make men capable of communicating highly complex ideas which other means of communication fails to convey.

It is necessary to note that the writing system is not language. It is merely a graphic representation of the sounds of language. This

system is man's invention to overcome problems of time, place and space that he is faced with in his communication with others. Physical movements are not language either. They are merely bodily accompaniments or enforced representations of language.

The organs by which these sounds are produced are not primarily organs of speech. They achieve this productive function only after the speakers of the language masters the ability to manipulate these organs to produce the speech sounds of his language.

In language the vocal sounds assume two characteristics : as speech sounds they have various properties as other sounds have, and as vehicles with which meanings are conveyed they represent various ideas. Therefore these vocal sounds have also symbolic value, namely, they represents something else beside having the characteristics of a particular entity. In other words those speech sounds are meaningful. These sounds of language are moreover produced in a linear sequence of successive articulatory movements. A whole stream is the unity of non simultaneous sound segments which can be described as being composed of simultaneous features.

c. Language is Arbitrary .

Here the word "arbitrary" implies these four ideas :

- that language is based on agreement,
- that language is unpredictable,
- that language is non instinctive, and
- that there is no geometrical relationship between the vocal symbols and the ideas they represent.

Language is based on agreement between the members of the social group which make use of it. They agree among themselves that a particular sequence of sounds represent a particular idea.

So language is unpredictable. It is impossible for a non speaker of a language to predict, without any preliminary knowledge, that in that language certain sequences of sounds will represent certain ideas, or that certain ideas must be represented by certain arrangements of sounds.

Since it is based on agreement, language must be learnt by the new users. Young children of that society must learn it because language is not born with them. It is non instinctive; it is an acquired skill. Although the speakers are born with the faculty for sound production they must learn to utilize that faculty for their own use to produce the sounds employed in that language.

The sound used in a language, although they represent ideas, have no physical relation with the ideas. The relation between the two sides is only conventional, following the agreement between the users of the language. Therefore there is a tacit agreement which the speakers adopt

in learning language that has the effect of stabilizing the linguistic system.

The arbitrariness of language covers all its elements; in the relation between sounds and ideas, in the arrangement of sounds, sequences of sounds etc.. Thus a speaker is not free to produce new vocabulary items or new structure items to be used in that language. The new item, in order to survive in that language, must be accepted by other speakers. This acceptance is based on the agreement between these speakers that these new sound arrangements are accepted to be the representations of certain ideas.

d. Language is Systematic .

From the smallest units to the largest structural entities systematization is everywhere apparent in language. The parts of language are not an accretion or an aggregation; they appear in a system of arrangements in which each functioning part hangs on to the other, while mutual conditioning exist between these parts. Therefore every part of language has its own value only in its place in the system. The elements have their functions in relation to one another. This system implies that recurrent designs of language entities are frequent in language; if a part of the design therefore is given, predictions can be made about the whole of it, like for instance, a triangle can be drawn if one side and two angles are given.

Each language has its own system which guides the speakers in using the vocal sounds. The system of one language is different ^{from} that of the others, so that it is impossible for ^{the} speaker of one language to impose his language system onto another language. This distinctive system is based on the agreements between the users of that language alone.

Beside predictions, the patterning and designing of the language entities enable substitution and classification. The patterns and the designs act as frameworks into which certain group of entities can be fitted in, so that each entity within the group can be substituted for another of the same group. Thus the entities which are able to occupy certain position can be ^{placed} grouped in the same class.

c. Language is Complete .

Any language is complete in itself. It enables the speakers to make a linguistic response to any experience they may undergo. Therefore any language is effective and efficient as a means by which the users communicate with each other. The fact that languages differ in their system of arrangements and in their vocabularies does mean that they also differ in their efficiency for communication.

Scientific Objectivity .

To end our discussion on what linguistics and language are, we

will see again the objective feature of linguistics. Linguistics seeks to be objective. The objectivity of linguistic science includes the attempts to establish units which are empirically defined and can be identified.

The objectivity of linguistic science is not to be confused with the objectivity of truth as opposed to falsity as it is usually understood in ethics, epistemology, and the like. The objectivity here is similar to that of the other empirical sciences; measurements and counting. Here one discusses the conformity of an object to some other object used as its measure, and these conformities must be seen, felt or heard by others; they are empirically verifiable.

In linguistics, definitions of linguistic units are expressed in empirical terms, and a given linguistic event either does or does not conform to the established standard. There is no question of the objectivity of such units in a comparative sense; whether they are useful or not depends solely on the purpose for which they are set up.

Summarizing, we may say that in this chapter the question of the "what" of linguistics has already been answered; some presentation on the insights of language has also been given. Linguistic science, in short, deals only with those aspects of language which are amenable to objective scrutiny, description and analysis. The approach, we will see may be historical, comparative, or synchronic; yet the aim is to describe, analyze, generalize and reconstruct language considered as a vast and complex system. It is therefore, to name one example, different from the art of the rhetorician, who uses this instrument as effectively as possible as a means of communicating and influencing, even if giving aesthetic pleasure. We will have a further look at linguistics in our next chapter, paying special attention to the way language studies have developed from a non scientific stage to a scientific one.

CHAPTER II. THE HISTORY OF LANGUAGE STUDY.

The ordinary users of language will occasionally discuss matters related to their language. These matters are mostly connected with the idea of correctness either of meaning or of usage. To settle these matters they use their common sense; they appeal to an authority or resort to philosophical reasonings. What they are actually doing is parallel to the linguistic speculations of the ancient and medieval philosophers; which are different in the way of a scientific study. It is only within the last century or so that language has been under a scientific consideration through careful and comprehensive observations.

This chapter, which we call "The History of Language Study", will show how people of different times have dealt with questions on language. It will consist of two parts: the prescientific and the scientific periods. The first part, the prescientific period, deals with various language studies based mostly on philosophical ideas; while the second part, the scientific period, accounts for language studies on an empirical basis.

The Prescientific Period .

a. The Greeks and the Romans.

This period, we might say, started with the great philosophers of western culture, the ancient Greeks. They tried to solve problems related to the structure and the nature of language. However their works were not scientific because of the strong influence of philosophy: they philosophized on questions involving language and they confined their study only to the Greek language.

"Unfortunately these works were sometimes coloured by an undue emphasis on a philosophical interpretation of linguistic phenomena and a reference for Greek as an ideal and fundamentally logical language." (6, p. 16).

On the nature of language the Greek philosophers were divided into two schools; the Anomalists and the Analogists (3, p. 4). The Analogists believed that language existed in the very nature of things and therefore was fundamentally regular and logical. They held the opinion that words were always related to the things they represented e.g. there is something in the nature of a horse that makes "horse" the proper word for the animal. The Anomalists considered language as the product of an agreement between members of a social group, so that words in a language did not have natural relations with the things they stood for; they were based on social convention.

These two schools, in giving proofs, resorted to facts which could not be proved in an empirical way i.e. by postulating imaginary ideas. For example, the Anomalists or the "convention" school, assumed

the first "name giver"- some individuals who, at some particular time, began the "convention" by arbitrarily assigning the various sound sequences to their various meanings. The Analogists, or the nature school, accounted for the different languages of the world by assuming that originally all mankind used the same "natural" word for each concept, but that all nations (except the Greeks) had "corrupted" the words, making these words become unrecognizable. (18, p. 38-39). A noted member of this school was Plato.

The study of language structure, in this case Greek, was started by Plato's contemporaries, for instance by Protagoras (481-411 B.C) who studied "grammatical gender". However it was Aristotle who started the analytical study of language. Less of a speculative philosopher than Plato, Aristotle sorted out words into classes- the beginning of a technique of analysis which has been in use up to the present day.

Aristotle's work, unfortunately, was founded on incorrect basis. The first of the two basis was that language was spoken word by word; thus to explain each word, and to find the principle by which words are selected and combined, is to present the analysis of language. The concepts of a word, it is now seen, cannot be taken for granted. The second basis is that as a philosopher, he was more interested in human thought rather than in the language itself; thus he classified not the words but the concepts they represented.

Nevertheless, because of Aristotle's greatness as a philosopher, his methods of analysis survived and became models for about two thousand years.

Aristotle's work was continued by his successors, notably the Stoics who developed what is now called declensions, participle, the description of verb and nouns. It was also used in studying classical works. This study gave rise to a new attitude in grammar- the normative attitude- which is still the prevailing attitude today. This attitude lies in the use of grammar as a means of analyzing classic writings and of guiding contemporaries to approximate to this model; thus the true grammarian was not a person who scientifically ascertained what language was but one who dictated what it should be.

The Romans organized the findings of the Greeks. They applied these findings to their own language, viz. to analyze the grammar of Latin and to study classical Latin works. They also modified and spread the work of the Greeks. The grammatical terms, which are in use at present, are, generally speaking, the Latin versions of the terms originated by the Greeks.

Most of the works of the Romans, such as those written by Aelius Donatus (400 A.D.), Priscianus (512-560 A.D.) were based on Aristotle's grammar. There was one work however, which was not written along this

line. It was the work of Publius Terentius Varro (116-28 B.C.). He used the forms of words as the basis for word classification. Unfortunately, because of Aristotle's powerful influence, this basis received no attention and was not developed further.

Before proceeding to the discussion of language study in the following period, we are going to discuss the position of "grammar" in educational circles in the Roman culture, as this will show the background of language study in the next centuries.

In the Roman culture education was limited to the higher classes only. It started with classes of a "grammaticus", which probably consisted of reading, writing and arithmetic; after that, acquaintance with Greek and Roman literature became the next subject. Finishing the two, the students next studied with the rhetorician in order to develop their ability to express themselves elegantly, forcefully, and effectively both orally and in writing. In the rhetorical learning the "science of grammar" was studied as a means of analyzing the best Latin writings, thus enabling the educated Roman youth to speak and write their native language more elegantly.

It is important to note here that after Donatus and Priscianus the study of language did not develop further. The reason behind this was the opinion that "the science of grammar" was complete, that within its framework all linguistic phenomena, in all languages known or to be discovered could be adequately handled, and that anything which could not be done so was dismissed as either a mistake due to ignorance or to corruptions. It became the groundwork in the teaching of language which was to prevail for many centuries to come.

The cessation of language study made the position of people teaching language more eminent than those who studied language. Moreover there was no change, in the teaching methods and matters, during the one thousand years of language teaching. Those grammars as prepared by Donatus and Priscianus, without any major significant alteration were to dominate language teaching for many years.

b. The Middle Ages, The Renaissance and the Eighteenth century .

In the middle ages the educational system made use of the Roman curriculum for teaching the students. Here the authorities in education, the clergymen, took over the curriculum that the Latin pedagogues had prepared for Latin native speakers and used it for their own students without considering the latter's native tongue. The students therefore were inclined to feel that Latin had for them some kind of status of a native language. During this period the teaching of the seven arts became the basis for the teaching of other subjects. Grammar, rhetoric and dialectic comprised the first three arts of the seven, and grammar here meant the Latin grammar.

It is not surprising therefore that during this time no appreciable progress in language study was made; "grammar" was considered as a finished matter, while the philosophers, who often pondered upon the questions of language, neither reproduced new insights nor developed what the Greeks had achieved. The most important thing that rendered the progress of language study impossible was the fact that investigation of fundamental linguistic principles was regarded as an exclusive task of the philosophers while the dealings with the actual language facts was in the domain of language teachers. Thus the philosophers theorized without having to base their theories on observed facts, while the grammarians taught what they had obtained from their own instructors.

During the 15th century and the Renaissance period language study made new progress. The growing importance of the vernacular brought with it that language study was not focussed only on Latin. Materials of contemporary languages were collected and analysed. The results of this was the production of the grammars of various languages. Before the year 1500 the grammars of most of the European languages were already in existence, and by 1600 those of Hebrew, contemporary Greek, Ethiopian, Syriac, Basque, and Welsh were produced. During the 17th century other new grammars appeared.

As all these works were based on Priscianus' treatment of Latin, they said nothing about the pronunciation of those languages. Priscianus did not treat this subject in his work since his work was intended for the Latin native speakers. Therefore they were produced on the assumption that in order to describe a language it is only necessary to list the system of inflections for each part of speech and the rules for the arrangements of words into sentences, and to supply a lexicon.

Unfortunately these works were useless for educational purposes; it was therefore necessary to devise a new way for teaching these languages. It was during the 16th century that a "dialogue" type of language textbook appeared for the first time. It contained short dialogues representing typical conversations that a traveller or a resident in a country might fall into. The dialogues were composed by someone who really spoke the language fluently, and they were presented with a translation given in parallel columns. Very popular was the Latin textbook for Frenchmen which appeared in 1530. "Dialogi" by Van Torre and "Cologna" by Heyden were two more language textbooks of this sort.

These dialogues however, served another purpose as well. They represented new methods for describing languages different from the Priscian formula. The data of the language were neither analyzed nor

explained, they were authentic and were accurately presented. They never experienced the distortion that forced them to fit particular preconceived category. This would, later, lead to different ways of language study.

There were also efforts to compare languages, that is comparisons both between different existing languages as well as between the existing and the older forms of a language. Franciscus Junius (1589 -1677) studied the ancient documents of English and of the closely related languages ; Frisian Dutch, German, Scandinavian and Gothic.

The 18th century experienced no new developments of language study except the different theories on the origin of language. language was not considered as the direct gift of God. Some held that it began in the man's attempts to imitate noises (the bow-wow theory), or in his natural ^{sound} producing responses (the ding-dong theory) or in the violent outcries and exclamations (the pooh-pooh theory).

The scholars of the 18th century followed the methods and principle of all previous language studies, especially those of the Greeks and the Romans. They stated grammatical features in philosophical terms and took no account of the structural differences between languages . The descriptions of grammatical features were put in the scheme of Latin grammar. They did not observe the system of sounds of language ; and considered that the sounds of language were those of the letters of the alphabet. They believed that the speechforms of books and of the upperclass represented the purer and older level of language, from which the "vulgarizing" of the common people appeared as "corruptions" by a process of language decay. The grammarians felt free therefore to prescribe fanciful rules which they derived from considerations of logic.

During these centuries various data became available : those of the existing languages, the "grammar" and "dialogues" of many languages. The records, moreover, of the successive stages of a language were also at hand. They caused a new trend of language study which was entirely different from the old ones because it had some characteristics which could not be found in the previous ones. These characteristics are those of a scientific study.

In short, it is evident that there was a continuity in methods and points of view about the study of language from Aristotle, through the medieval period, to the 18th century. The approach to language problems was synchronic. The 19th century, in which western scholars had methods to show the changes of language through time, and to compare languages opened up the scientific period.

The Scientific Period .

It seems that the study of language during the prescientific period was confined to European countries only. The facts show that this was

not so. Outside Europe people of various countries studied their own languages producing linguistic doctrines based on the older form of those languages. The Arabs, the Hebrew, the Japanese, the Chinese and the people from India working independently from each other, produced grammars of their own languages.

The body of knowledge about language which would revolutionize the ideas held by European scholars for hundreds of years originated from outside the continent. It was from India that the first known purely descriptive and non philosophical treatment of language appeared.

In ancient India the religious text were written in a language not commonly used in everyday life. It was, thus, necessary to teach the proper pronunciation and the exact interpretation of those texts. For these purposes a group of Indian scholars studied the language of the texts and the language of everyday life. This study was based on observation and resulted in the rules and lists of forms which describe the language usage. This led to the production of a systematic arrangements of grammar and lexicon. Various records of these works were made and it was the record of Panini (4th century B.C.) which gave detailed description of every inflection, derivation, and composition and every syntactic usage of Sanskrit, the language of ancient India. This ^{is} the most accurate and complete description of language based on observation and it is regarded as one of the most comprehensive grammars of a language.

Several grammars of Sanskrit had been published in Europe and some of the literature of India had been translated, but it was Sir William Jones, in 1786, who initiated the new type of language study - the scientific study. He had studied Hindustani and Sanskrit in India when he served as Chief Justice in Bengal. In 1786, in his speech before a learned society in London, he reported that Sanskrit had a very strong resemblance to Greek and Latin, both in the roots of verbs and in the forms of grammar and this pointed to a very close relationship among them.

a. Comparative Linguistics. (1786-1870).

Jones' statement kindled a feverish comparative study among European scholars when they studied Sanskrit and compared Latin, Greek and later other European language with it. The close family relationship soon became evident and the opinion, that Sanskrit was the mother language from which the chief European languages had sprung, gained ground; it was known as the Indo-European language.

During the next fifty years or so the study, an independent science, was confined to the comparative study of the subfamilies of Indo European and of some non Indo European families. This study was

to find out, to examine and to show the relationships among these subfamilies and to find the mother tongue. This study always took account of the grammar of Sanskrit and it assumed two characteristics fundamental to every science- that it be cumulative and impersonal. It is cumulative in the sense that all contributions must build upon or take cognizance of all that has preceded; and impersonal in the sense that the technique used must lead to generalizations that are verifiable by all competent persons. To be "science" the result obtained cannot remain private theories perpetuated by authority. (11, p.37). Therefore these first decades of language study were the period of Comparative Linguistics, which is also called Comparative Philology where all attention was devoted to comparing one language to another and finding a reconstructed mother tongue. The term "comparative grammar" appeared for the first time as "vergleichende Grammatik" in Friederich von Schlegel's "Ueber die Sprache und Weisheit der Inder" (1808) and the two books which became the basis of this comparative study are "Investigation on the Origin of the old Norse or Icelandic Language" by Erasmus Rask (1818) and Jacob Ludwig Karl Grimm's "Deutsche Grammatik" (1819). Rask's book was the first which dealt with "comparative grammar"; it outlined comparatively the Scandinavian languages and noted the relationship of one to another. The technique Rask used were based on the correspondences of sounds. They were generalized and used further as the means of exploring and proving a genetic relationship between any languages and this became the firm basis for establishing language "families". Rask developed the basic insights which were to become the foundation of the comparative method, the name of technique employed to show resemblances between languages or between stages of a language. His statement, in translation, is as follows

"A language however mixed it may be, belong^s to the same branch of languages as another when it has the most essential, concrete indispensable words, the foundation of the language, in common with it..... When agreement is found in such words and so frequently that rules may be drawn up for the shifts of letters from one to another, then there is a fundamental relationship between the two languages." (11, p.41).

If the first thing investigated was philological relationships, the later work went to syllables, entire words, and into morphological analysis.

The law of sound correspondences went by Grimm's name. In his "Deutsche Grammatik" he showed how Germanic languages could be traced back to Sanskrit and could still show differences in form from Latin and Greek. He proved that these differences fell into a systematic pattern. German always had a certain sound where Latin and Greek had another particular sound. The statements of these regularities became

wellknown as Grimm's law.

Grimm's law implied that during some period there was a regular shift throughout a certain group of community of Indo European speakers, transforming one sound to another. These regular sound shifts are familiar phenomena in all languages and are parts of the evolutionary processes of language.

It became clear, from various studies, that all European languages and some languages in the Near East had descended from one language, and that Sanskrit was not the mother language itself but its earlier descendant, and the most similar to the original. The conclusions were the result of the study of various languages such as Friederick Diez's three volume book entitled "Grammatik der romanischen Sprachen" (1794-1876) which dealt with the Romance language group, and John Kasper's treatment on Celtic language in "Grammatica Celtica" and so on.

Scholars began to reconstruct the mother tongue by producing words from which the words of similar meaning in the contemporary languages were derived.

A book important for the treatment of the grammar of the mother tongue was A. Schleicher's "Compendium der vergleichenden Grammatik der indogermanischen Sprachen" (Weimar 1861).

Grimm's law mostly dealt with consonants. Another term used by linguists at that time was "ablaut" i.e. a systematic alternation of vowels in a root. Ablaut existed in all European languages and Sanskrit as well; they should have inherited it from a parent language.

Theories on how Indo European developed gradually into the existing languages also began to appear. Schleicher said that dialects began to develop in the Indo European language, and when the speakers of each dialect migrated they carried with them their dialects, which later developed into those languages. J. Schmidt in 1872 proposed the Wellen theorie (wave theory). According to this theory changes in the Indo European moved in more or less successive waves towards the outer parts of the Indo European settlement, and the groups migrating from the outer parts preserved stages of Indo European destroyed by the next wave.

There were still many books which dealt with the comparative study and some put forth some new theories or opinions. The books which accounted for the developments of the new study since 1786 were the books of F. Max Müller (1823-1900) entitled "The Science of Language" and "Chips from a German Workshop", and William Dwight Whitney's "Language and the Study of Language" (1867) and "The Life and Growth of Language" (1874). These books were the books of linguistics which became the classics of their time.

The facts, covering a great variety of languages and having importance in their results, showed that technique were being built up, through which the approach to language was becoming scientific; furthermore that scientific knowledge, a body of truth concerning the nature and functioning of language, was growing.

At the end of comparative period linguists have unearthed some facts about language which became the basis of further language studies. Those facts are

1. That constant changes are to be expected in all languages at every period of their history.
2. That these changes did not happen at random. They were so regular that it was possible to grasp this regularity in generalizations upon which to determine language relationships to establish "families" of language.
3. These changes were not caused by corruptions due to the mistakes of the ignorant or the careless. The production of the "Oxford English Dictionary" was based on the idea of correctness stemming from the usage by the speakers and writers of a particular language in English.

b. The Neogrammarians (1870-1925).

G. Ascoli, an Italian scholar, started this period. His "Corso di Glottologia" (Florence 1870) showed that Sanskrit was neither identical with Indo European nor the descendant most like the parent language. He showed that Sanskrit varied differently, with other European languages, from Indo European. So it was important to revise the concept concerning the vowel system of Indo European built on the previous assumption. This was carried out by G. Curtius (1858), V. Thomsen (1877), and Ferdinand de Saussure (1878).

Saussure's work made Karl Brugmann find a linguistic journal, "Morphologische Untersuchungen", where he maintained that phonetic laws like Grimm's laws, were like laws enunciated in the natural sciences; they had no exception, any apparent case of deviation from the law being due to data or laws not yet discovered. Brugmann and his followers were called "die Junggrammatiker" or "the Neogrammarians". Together with Delbrück he produced three volume book called "Grundriss der vergleichenden Grammatik der indogermanischen Sprachen" (1886 - 1900 enlarged and revised 1897 - 1916) which were universally recognized as the authoritative textbooks on comparative linguistics.

This period was termed the period of the neogrammarians because during this span of time the neogrammarians dominated the scene and thus had a strong influence upon the comparative study of language.

The neogrammarians attempted to explain sound changes that occurred in a language or among languages without any exception. The

statements of these changes were termed phonetic laws, and, since all the changes could be explained, these phonetic laws were without exceptions.

Karl Verner, a Danish scholar, contributed to the study of the exceptions of the phonetic laws of Grimm by supplying the rules of sound changes which governed these exceptions in Germanic Language.

Other features which explained exceptions were discovered. They were analogical creations and borrowing from other languages or dialects.

All these studies of language sounds proved that the sound changes were stable, showing regularity. This led to the study of the nature of speech sounds, and the science of speech sounds, phonetics, became one of major interests. New techniques for the analysis and descriptions of the sounds of all languages began to develop. Articulatory phonetics and Instrumental Phonetics advanced rapidly and produced results which revealed various insights on their sounds of language. Phoneticians showed and described the tremendous number of sounds which appear in a language and could not be handled by the use of the conventional alphabet. A new alphabet - the phonetic - was created and used to describe these sounds. Various types of phonetic alphabets were used by different scholars, such as Henry Sweet's "Broad and Narrow Romic", A.M. Bell's "Visible speech" and Otto Jespersen's "An-alphabetical System". In 1888 the International Phonetic Association took up Otto Jespersen's suggestion to establish an alphabet designed to be really international and applicable to all languages, and produced the International Phonetic Alphabet, which with some additions and improvements, has been in use ever since.

This period also witnessed the development of Linguistic Geography. The studies of the history of various languages showed evidences that what was termed as the "standard language", because of particular historical circumstances, had arisen out of the dialects and not the other way round. The effort to understand the relationships of dialects to standard language and dialect to dialect led to the gathering and recording of the facts of usage in dialect dictionaries, grammars and various kinds of maps which made up a dialect atlas.

"Linguistic Geography helps the study of the history of language by giving clearer understanding of the importance of dialect differences in language, of the centers of language dispersion, and the basis for the special prestige through which one regional dialect out of the many becomes a standard language."

(11, p. 53).

In short the growth of linguistic science in this period consisted of new assumptions concerning the nature of language which

grew from further treatment of sound changes supplemented with new insights—the processes of analogical changes and borrowing.

From 1870 to 1925 the scientific study of language experienced fruitful years. Various discoveries were made and the results of these discoveries became the basis for language study further. The facts which came out during this period were :

1. That the sound features of a language (the pronunciation) are its most stable characteristics. Sound changes operate as massive, uniform and gradual alteration within a particular language or dialect, and within a particular period of time without being hindered or helped by features of meaning or the conscious individual changes.

2. That the characters of the sound of a language can be analyzed and described in terms of the physical movement by which the sounds are produced and the specific kind of vibrations which make up their acoustic characters.

3. That everywhere in a language the frequently used words have a variety of meanings.

4. That for language study it is important to gather facts of usage on the broadest base possible and to produce rigorous techniques both for collecting these facts and for studying them to get the soundest and the most significant results. This last fact was found through the dialect studies in Linguistic Geography.

c. The Structuralists (1925-1950).

A new type of language study appeared after the World War I . This descriptive linguistics, which deals with individual languages, was based on the new assumption that language was structured.

In America it grew out from the effort to record and analyze the enormous number of American Indian languages, while in the Continent its appearance was because of the effort of broadening the field of linguistics.

In Europe Ferdinand de Saussure started this new study through his discussion on and demonstration of fundamental linguistic principles which could be used as the theoretical basis for the science which deals with language.

Under Saussure's influence, Nicolai S. Troubetzkoy (1890-1938), an authority on Caucasian language, wrote a new approach in Comparative Slavic Linguistics. Together with Roman Jakobson, who founded the "Circle Linguistique de Prague" (the Prague Linguistic Circle), he produced the new approach to linguistic description. The Prague Linguistic Circle later became known as "Structuralism" or "Functionalism". Troubetzkoy's book "Grundzüge der Phonetik" (1939) was the handbook of this movement.

The Phonemists looked at language as a system of structure,



so that to describe a language they looked at the whole structure of the language and at what kind of system that the structure formed. This implied that each detail was to be examined first as a part of a system. Therefore it was the Phonemicists who studied and reported the distribution of linguistic units- that is whether a speech sound occurs with equal frequency in a certain position in a syllable or a word; the sequences of sounds which occur; the structure of the syllable and so on.

They also devoted much attention to isolating and defining the phoneme, the linguistic sound units which differentiates meaning. Troubetzkoy made elaborate studies and classifications of the relation of each unit to the whole and to each other unit in the system.

However the trend among the phoneticians outside the Prague School was also directed towards this phonemic attitude. They realized that the unit of description of sounds system of a language must be a concept rather than an entity, because various sounds which really occurred could be grouped in smaller units which had particular functions in the structure. They therefore moved in the same direction as the phonemicists- towards the phonemic idea.

In the United States Edward Sapir started "Structuralism" through his book "Language" (1921) in which he showed, through his experience with American Indian languages, that the same phonetic differences may have entirely different structural values from language to language; and that there is power in the structural system itself. The habits which made up the control of one's native language are not habits concerning items as items but habits concerning contrastive items as functioning units of an ordered system of structural patterns. Together with Leonard Bloomfield's "Language" (1933) Sapir's work became the fundamental basis for American Structural Linguistics. Sapir furnished the basic points of view and Bloomfield provided the detailed statements of principles of analysis. These two books were supplemented by articles written by the two, such as "Sound Patterns in Language" (Sapir 1925); "Postulate for the Study of Language" and "On Recent Work in General Linguistics" both by Bloomfield (1926 and 1927).

Structural linguistics which also covers the descriptive study, grew rapidly from then on. Three factors which contributed to the development of linguistics in the U.S.A. are,

1. The fact that linguistics can help in the teaching of languages by missionaries made these missionaries have a keen interest in that science and its progress.

2. The teachers of English to non native speakers found that the teaching of English based on linguistic principles enabled them to achieve good results. So they became interested in linguistics.

3. The need of the military servicemen in the World War II to

learn the languages of the place they were stationed at necessitates the contribution of linguistics.

All these facts pointed to the descriptive branch of linguistics in the U.S.A. In Europe descriptive study also flourished in that same period. This produced two schools of linguistics i.e. the American and the European schools. There was no significant difference between the two. The members of the American school are the followers of Sapir, Bloomfield and Kenneth Pike, while those of the European School are the followers of Saussure, Troubetzkoy, Jakobson, and Andre Martinet. However there are also linguists who are independent of the two.

Since 1925 new linguistic views were observed and used as the basis of the study of language. They can be used to solve many linguistic problems both inside and outside the scope of linguistics. These views are

1. Language is structured. This structuring is a basic characteristic of every aspects of human language and enables man to grasp and to communicate highly complicated ideas.

2. The basic material which makes up a language consists of modifications of the breath stream, that is vocal sound. However the same phonetic differences usually have entirely different structural values from language to language.

3. There are no languagesounds which are easy or difficult in themselves. Ease or difficulty of hearing or of pronunciation turns out to be a function of the way phonetic material constitutes a pattern in a person's native language.

4. The child in learning his native language not only develops great facility and accuracy in responding to the limited number of contrastive units which identify the word patterns and the grammatical structures of his particular language; in developing this great skill he also learns to ignore all those physical features not relevant to the identification of these word and sentence patterns.

5. The units which function to identify the word patterns and the sentence patterns of a language consist of abstractions of bundles of contrastive differences of sound features, of sequences, of distribution, of pitch etc..

d. Linguistics in 1950-1960 .

Beside the further development of structural linguistics, there were also efforts to apply linguistics for various purposes.

The application of linguistics to language teaching has wide public, and effort have been made as early as the beginning of the scientific study of language itself. The work in phonetic in the 19th century was the background of the reform of language teaching in Europe be-

ginning with W. Victor's "Der Sprachunterricht muss Umkehren" (1886). Some works on the treatment of this subject are "Practical study of Language" (Henry Sweet 1900), "How to Teach a Foreign Language" (Otto Jespersen 1909), "The Teaching of English Language" (Fries 1927), "American English Grammar" (Fries 1940) and "Linguistics and Language Teaching in the United States 1940-1960 (William G. Hailton).

Another application is the use of linguistic principles to solve problems in psychology. A report on this study was edited by Charles E. Osgood and T. A. Sebeok entitled "Psycholinguistics : A Survey of Theory and Research Problems" (1953).

There ^{have been} are various other applications of linguistics, such as in machine translation, in sociology and in anthropology.

During this period there ^{have been} are also some efforts to study language using such new approaches as Transformational Grammar (by Noam Chomsky and Zellig Harris), Generative Grammar, Tagmemic Analysis (by Kenneth Lee Pike) etc..

The history of language study reveals that linguistics is a comparatively new science; yet it has achieved comprehensive results in dealing with various linguistic phenomena.

CHAPTER III . THE SUBDIVISIONS OF LINGUISTICS .

A science which tries to cope with a wide area of investigation is usually divided into various subdivisions, each one of which studies a particular division in which the subject matter has been cut up. The scientists tend to have better observations, to carry out a more thorough study and thus to obtain better results within a reasonable amount of time.

Linguistics investigates the facts, events and entities in language which are too numerous in number to be investigated in a single study; the data would be too great, the method too complicated, and the different scientific techniques used too divergent. It is unavoidable that the large subject matter is divided into many different areas, fields or branches. It has also been proved in practice that insights and techniques in certain particular fields have given suggestions and helped along scientific investigation in other fields.

To arrive at each of the specific parts of the subject matter linguists use different ways of dividing.

J.B. Carroll divides up the subject matter into major language families or areas of the world. However, he said that such a division merely reflects the fact that many linguists tend to specialize in the languages of one or two fairly restricted groups.

Another way of dividing linguistics is, according to him, that of Historical Comparative and Structural Descriptive linguistics. In each of which however there are different analytical methods dealing with levels of structure found in language.

In his lectures, Dinneen first gives General Linguistics in which the theory is built up on the scientific descriptions of many languages carried out in Descriptive Linguistics. This Descriptive linguistics is also at the basis of Historical and Comparative Linguistics.

The division we follow in a general way here is that of W. Nelson Francis, as this best suits the purpose of our work. Here we will only mention four different ways of cutting up the subject matter and the division of linguistics which deals with each part of the subject matter.

a. The first way of dividing the subject matter is that which is based on the division of fields or areas of linguistics. Linguistics may study languages individually, in groups or in families, or it can also study languages in different geographical areas; so that we have various linguistics, such as Indo European linguistics, American Indian linguistics, Germanic linguistics. Commenting on this division we note that the distinction into geographical areas is a very simple one. Grouping languages into families can then be done by the so-call

led Comparative linguistics.

b. The second way is the division based on time or ~~point~~ view. Here we see the aspects of language dealt with specifically in synchronic and diachronic terms.

We study the synchronic aspect of language if we study language as a state of affairs at a given point of time. To study this we have Descriptive Linguistics. Though the definition of all linguistics is descriptive, we here use the term in a more specific sense as a scientific study of language which tries to make a scientific description of a language at a certain particular point of time.

If we study the history of language, namely the different states of a language at different points of time, we undertake Historical Linguistics. Here we look at a language in terms of the changes which have occurred in it in the course of time. Thus we study language from its diachronic aspect.

Following these two aspects, in Comparative Linguistics we make a comparative study between the results of two descriptive studies or two historical ones. We make a comparative study between two descriptions of two languages as presented by Descriptive Linguistics, or a study of the history of two different but related languages, or a study of two stages of one language with the purpose of determining the nature of derivation.

c. There is also a subdivision of linguistics dealing with the internal structure of language. This study is called Structural Linguistics. It has various subbranches which are concerned with the different layers of structure of language making up speech. The main subbranches of this study are Phonology, Morphology and Syntax.

1. Phonology .

Phonology is the branch of Structural Linguistics which studies the speech sounds of a language. It has two divisions : Phonetics and Phonemics. Phonetics concerns itself with the study of the features of speech sounds and their classifications in terms of their productions, transmissions and perceptions. The three kinds of Phonetics are

- Articulatory Phonetics, which deals with the productions of speech sounds;
- Acoustic Phonetics, which deals with the transmissions of speech sounds; and
- Auditory Phonetics, which deals with the perceptions of speech sounds.

Phonemics is a subbranch of Phonology and is concerned with the classifications of speech sounds into units called phonemes, which are capable of distinguishing utterances, as well as with the features of those phonemes and their interrelationships.

2. Morphology .

This deals with the study of the identification and the formation of the minimum meaningful sound units, their classification into morpheme, their arrangement into larger constructions and their forms and changes in different constructions; it also deals with the study of the morphemic formations of words. It is divided further into Morphophonemics and Morphemics.

Morphophonemics tries to investigate the phonemic constructions of those classes of minimum meaningful sound units and their phonemic variations in various arrangements.

Morphemics investigates those minimum meaningful sound units in terms of their identifications, classifications and arrangements into larger constructions; and the morphemic formations of words.

3. Syntax .

Syntax is the study of the forms and arrangements of words and sequences of words into larger constructions.

Morphology and syntax make up what is called Grammar.

The first three ways mentioned above are related to a particular linguistic theory and method which are held and are meant to achieve through a scientific study, insights into that area of investigation which is being given a special attention,

d. The fourth way points to a different direction. It shows how the results of those various subdivisions of linguistic science are used to solve problems related to language but not within the scope of linguistic proper. Therefore the studies under this division can be called the subdivisions of applied linguistics in contrast with the branches of theoretical linguistics as presented in the three earlier ways.

The branches of applied linguistics are marked by these characteristics.

- They represent attempts to apply the findings and methods of linguistics to the solutions of problems and the achieving of objective not strictly within the proper area of investigation of linguistics;

--They make use of materials, ideas and methods from other fields of study outside the strictly defined limits of linguistics.

Included in this division are Semantics, Graphics, Linguistic geography, Lexicography, Etymology and Philology.

Semantics.

This is one of the applications of linguistics to the study of meaning. Linguistics studies language, which has meaning, in terms of the forms which can convey that meaning; it does not concern itself with meaning. The three kinds of Semantics are

Philosophical Semantics i.e. that branch of Semantics which deals with

notional meanings, namely ideas, concepts, images and feelings associated with words. These are stimuli to or responses for articulated sounds but not sounds as such,

General Semantics; it is that branch of semantics which studies the referential meanings i.e. objects, relationships, classes of objects or classes of relationships outside language which are referred to by words; its subject matter is not language but references; and Linguistic Semantics; This is the study of distributional or contextual meanings i.e. the contexts in which words can be used and what those words contribute to those contexts. It is purely within the scope of linguistics.

The branch of Applied Linguistics proper in the study of meanings is the last kind of Semantics : Linguistics Semantics. The reason behind this is the fact that it is only distributional or contextual meanings which are amenable to a scientific study since it is the only meaning which is strongly influenced by the meaning carrying forms. Therefore Linguistic Semantics can apply the forms of language produced by the linguistic science to study those contextual meanings.

Graphics .

Writing is not included in the study of language by linguistic science. Yet this does not mean that writing is not a subject of a scientific investigation. Graphics is the branch of Applied Linguistics which studies the writing system of a language. It studies the set of conventional printed symbols used to represent certain aspects of speech and the set of rules governing the groupings and the arrangements of the symbols to represent other aspects of speech. It works on the basis of the assumption that writing is not speech, and it is concerned with alphabetic writing only.

Since alphabetic writing is closely related to the meaning carrying forms in language studied by linguistics, it is evident that Graphics is closely related to linguistic science in terms of its material, theory and methods.

Linguistic Geography or Area Linguistics .

It is the branch of Applied Linguistics which studies the characteristics of dialects within the general system of a language and the geographical diffusion patterns of these. It includes both synchronic and diachronic considerations, paying special attention to dialectal differences in the phonological and the morphological system, in the vocabulary and in the content. It also studied the similarities between those dialects and the linguistic changes found among them; and also other aspects which affect those changes, similarities and differences such as economical, social, racial or educational aspects.

Lexicography.

This branch deals with the gathering of all meaningful elements in the language system with statements of their meanings or verbal equivalences. It will include, in its study, words, morphemes and all other elements or grammatical features which carry meaning unlike tenses, cases etc. (6,p.25).

The preparation of a dictionary is included in this study. Lexicography is a scientific study because it follows the scientific procedures in its approach using methods of objective description, generalizations and constant revision. Statements which Lexicography makes use the findings of different aspects of language. It uses the finding of a linguistic analysis i.e. the meaningful forms described, as a part of its material. In describing the meanings of these elements listed, Lexicography resorts to the three meanings: notional, referential, and contextual.

Etymology .

Etymology is the study of the origin and the history of the words used in any language; when and how each word came into being, and how it came to have the form and meaning as it has today. Modern Etymology is scientific because it makes use of scientific methods in all stages of its course of investigation. Its effort is centered in securing all available information on the changes of forms and usages any word has undergone since its first known appearance. If the origin of the word cannot be traced back, an effort is made to find out the point where it entered the language under investigation.

Philology .

It is the study of written documents to first establish the correct texts through the analysis and comparison of various manuscripts and inscriptions. The language of the written documents is then analyzed in terms of its structure and content to find its relevance to the language of the time in which those texts were produced. The establishment of the correct texts leads to their interpretations to obtain all information about the society which produced those texts, such as the information on social and cultural life.

If the subdivision of linguistics are put into a scheme, the scheme will be as follows :

Linguistics:

A. Theoretical:

- 1.Aspects -- synchronic → Descriptive Linguistics,
→ Comparative Linguistics,
-- diachronic → Historical Linguistics.

- 2.Fields -- groups/families e.g. American Indian Linguistics,
Indo European Linguistics,

Germanic Linguistics etc..

3. Structure - Structural Linguistics.

-Phonology → Phonetics

- Articulatory Phonetics,

- Acoustics Phonetics,

- Auditory Phonetics.

→ Phonemics.

-Morphology → Morphophonemics,

→ Morphemics.

Grammar

← Syntax.

B. Applied :

Six Branches of Applied Linguistics.

1. Semantics - Philosophical Semantics,

- General Semantics,

- Linguistic Semantics.

2. Graphics.

3. Linguistic Geography.

4. Lexicography.

5. Etymology.

6. Philology.

CHAPTER IV. THE METHODOLOGY IN STRUCTURAL LINGUISTICS .

It is essential for a scientific enterprise to build up a particular method of investigation which is capable of fulfilling scientific requirements; it can then be used as a standard method by anyone undertaking an investigation.

One test of a scientific methodology is the extent to which it achieves consistency of results in the hands of different scientists. If the extent is great, and thus the consistence of results is of a very high degree, the methodology may be accepted as standard. another test is the scientific quality of the results. If the results can hold against most of the data collected as well as against almost any fact about the subject matter, the methodology is then sound enough scientifically to be used.

In all studies of language we must first have a descriptive picture of the language. This can be produced through one of the two kinds of linguistics either Descriptive Linguistics or Structural Linguistics. However, the product will be the same since both employ the same methodology for the study of the structure of language.

As in the heading of this chapter we prefer to say the methodology in Structural Linguistics, rather than the methodology in Descriptive Linguistics for the methodology for describing language, because as commonly practiced nowadays, Descriptive Linguistics is confined to the study of living languages i.e. languages which exist at the present state. Structural Linguistics, however, covers the principles and methods of structural analysis applied to both present languages and the languages of the past. Therefore Descriptive Linguistics is included in Structural Linguistics.

"There are those who regard the development since 1925 as constituting 'descriptive linguistics' in contrast with the work of the preceding hundred years which was primarily devoted to 'historical linguistics'. It is true that the new approach of the last thirty five years arose in connection with the descriptive analysis of living languages chiefly the many diverse languages of American Indian.

The term 'structural linguistics' came later in an effort to name more precisely the organizing principles of the descriptive methods of the new approach. Some still use² interchangeable equivalents the two names 'descriptive linguistics' and 'structural linguistics'. Many, however, have come to believe that the new principles of our new 'structuralism' apply to the complete range of linguistic data and they are re-studying historical linguistic data in terms of the principles and technique that arose in the new 'descriptive analysis'. Moreover older scholars have insisted that that data upon which to construct language history must be soundly 'descriptive'. In order to avoid confusion, it seems best to follow the more recent practice of using 'structural linguistics' to cover the principles and methods of structural analysis whether applied to working with a living informant or working with ancient texts

It is the work with these techniques and methods which has unexpectedly given us a new view and understanding of the nature and functioning of human language. This structural linguistics then applies to both the descriptive linguistics of living languages and also the historical linguistics of older linguistic forms. The basic difference between the two will be the nature of the evidence and the goal to be achieved."

(C.C.Fries: "Linguistics and Reading" 11, p. 228).

Linguistic Methodology .

A linguistic description must be formal. It must account for the forms in language. In linguistics we study the symbols in language which are used to convey meaning that is the forms in language. We do not study the meaning itself because it is only the forms which are capable of being studied empirically. As we see in Semantics, meaning involves all human experience including feelings, emotions and ideas in the users of the language. A scientific study will not be able to investigate all these aspects of human experience, because of the scientific restrictions which its process has to follow such as objectivity, validity and reliability.

We analyze the forms in language in order to achieve a formal description, namely the description of these forms in terms of other forms. This is carried out in a formal analysis, i.e. an analysis which directs its attention to the forms of language, by which the meanings, whatever they are, must be distinguished. It is possible to undertake this. Without knowing the meaning we arrive at the differentiating symbols of a language. We do not concern ourselves with what those symbols mean but with the fact that they have meaning and that they have different meanings from other symbols.

Thus we say that linguistics describes how languages distinguish meanings rather than investigate ^{what they} are.

Before we proceed to the description of the methodology we will present some explanations on the terms most commonly used in the analysis of the various layers of structure of a language.

1. Form: A linguistic unit which has meaning or capable of setting apart one meaning from the other.

a. Composition: A list of elements which compose a unit.

b. Distribution: The privileges of occurrence of a unit.

The distribution of an item is the place where the item occurs.

The three kinds of occurrence of items are

- obligatory co-occurrence of items,
- necessary exclusions of items, and
- mutual tolerance of an item .

The two types of distribution are

- parallel distribution i.e. if two items

can occur in the same or similar environments.
—complementary distribution i.e. if two items cannot occur in the same or similar environments.

Environments : Factors which can co-occur in linguistic items both linguistic and non linguistic.

2. Function : a. Sometimes it means "meaning".

b. Covariation - the change of linguistic item 'x' when the linguistic item 'y' changes.

In our analysis it is not such that the meaning is the decisive factor determining different forms or changes of forms. We abstract from meaning as such, and only consider how forms change in their various relations to each other.

These terms are used in the various levels of analysis of a language. Further details will be given as we describe the methods of analysis of the different levels.

Since the pioneering work of Sapir and Bloomfield, the methodology of linguistics has developed so well that at present one can carry out the structural analysis by intelligently following definite operational procedures. The methodology, especially that for the analysis of the lower layers of structure, is so advanced that it can be used as a standard method with which the analysis is undertaken. The reason for there being no parallelism in the development of the methodology for the analysis of various layers of structure are supplied by J.B. Carroll in his "The Study of Language" (6,p.31) as follows:

1. The necessity for analysing the lower units before going to the higher units makes it necessary for the development of the methods of analysis of the lower units to get primary attention.

In a language, the elements of structure of a higher layer are built up out of the units in the lower level immediately below so that the analysis of the higher levels must take account of the units in the lower level. This makes the analysis of the lower level of primary importance to the higher level. Therefore the lower level gets primary attention.

2. The analysis of the higher units requires a great amount of data. These data are more unwieldy for the analysis of the higher level.

3. The higher units of the linguistic structure are comparatively more complex than the lower ones.

The larger amount of data required and the complexity of the units in the higher level needed more complex methods, which are not subject to quick advancement.

Therefore, although the methodology has undergone rapid development, it is still not a finished matter. Various problems still exist and they still remain disputed matters about which linguists are still arguing.

Phonetics Methodology .

Among the three branches of phonetics, attention is focused on Articulatory Phonetics because

a. Articulatory Phonetics is the oldest and the most completely developed among the three branches.

b. Investigation in articulatory phonetics can be carried out with a minimum of elaborate equipments.

c. The results of the analysis in Articulatory Phonetics are sufficient descriptions of sounds of language, since the descriptions of sounds from the point of view of their productions are sufficient in the analysis of speech sounds.

Procedure :

The first step in phonetic analysis is the selecting of short utterances of the language. These short utterances are then segmented i.e. cut up into units. There is no fixed way in the segmentation process but people feel that the continuous noise of speech can be cut up according to certain distinctive features as they go by in the flowing stream of speech. So a phonetician cuts up a continuous speech flow into short utterances and then cuts up these short utterances according to the distinctive features, into sounds or phones which he names and describes.

As each utterance or individual sound uttered is a unique fact, different phones are therefore constantly being produced. Obviously each sound seems to reoccur to the usual listener. The phonetician groups those that reoccur into groups of phones called phone types, the members of which share some distinctive features.

The next step is to describe those phone types in terms of the articulatory features, the way they are produced and the organs of speech involved in their production.

Some of these articulatory features are

- points of articulation: the specific parts of the speech organs involved in the production of speech sounds.
- manner of articulation: the way those organs involved produced the speech sounds.
- voicing: the position of the vocal cords.
- nasality: the involvement of the nasal cavity.
- muscular tension: the relative degree of muscular tension used.
- tongue position: the part of the tongue directly involved.

- tongue height: the height to which the part of the tongue is raised, and
- lips position: the position of the lips.

To differentiate one phone type from the other the phonetician uses a phonetic alphabet in which each letter of the alphabet represents a phone type. Those phonetic letters are put into a phonetic chart in which the articulatory features of each phone type are shown.

The above shows how a phonetician studies and reports on phonetic composition. He analyses and segments those short utterances into successive sounds or articulations. The sounds are then described into terms of several simultaneous components. Actually the components are indefinite in number. So the phonetician selects only those components which enable him to identify the unit elsewhere and to distinguish it from others.

A phonetician also studies phonetic distribution i.e. the distribution of those phonetic units - the phone types. He tries to find out what sort of sounds in a given language can occur in different positions and in what environment those phonetic units can occur.

Thus the purpose of a phonetic analysis is to give a positive, additive description of certain sounds, either of longer sequences of sounds, presumably composed of smaller units, or of the presumed units. These are described in terms of the simultaneous components which define them. A phonetic analysis can achieve its purpose if the results it presents are good, in the sense that theoretically the description is exhaustive, simple and systematic, and that practically those sounds can be recognized and produced as the native speakers recognize and produce them.

Methodology in Phonemics.

In a phonetic analysis we come to the phone - types i.e. those sounds the speakers of a language make use of. Therefore we analyze sounds which are capable of forming utterances. However, there is another function of those phone-types, those speech sounds, which serve as the basis of our next analysis. Sounds have also the ability to distinguish words and to differentiate utterances. The purpose of this analysis - the phonemic analysis, is therefore to find the minimum number of sounds (phone-types) in a language that are consistently capable of distinguishing one meaningful unit of the language from another in similar environments. In short, we try to discover the phoneme of a language.

Phonemes are units of sounds, found in a language, which are functional; they differentiate meaning, but are meaningless in themselves. They are, therefore, the significant, contrastive, distinctive and functional sounds.

A phoneme consists of a sound unit different from other sound units; every phoneme is, therefore, a member in a system. Thus, phonemes are contrastive elements, which together make up the phonemic system of a language. If we look at each individual phoneme, it forms a group of phone types, namely a group of sounds, or a class, whose sound differences are not capable of distinguishing one utterance from another, that is a class of sounds whose differences are not functional, and when uttered as such; what is uttered is one member of the group or class. The member is called an allophone.

In describing the phoneme articulatorywise we do not describe the exact pronunciation of it (because this is impossible), but we describe it in articulatory terms that are sufficiently contrastive so that we can distinguish it from other phonemes. We use those articulatory terms in our description that are sufficient to identify each phoneme.

We find basically two major classes of phonemes i.e. segmental and suprasegmental phonemes. Segmental phonemes are those which are made up of sounds. Included in this class are vowels, semivowels and consonants. Suprasegmental phonemes are those phonemes which are not made up of speech sounds. In this class are included stress, pitch, juncture, tone, and intonation.

Each language has its own phonemic system which can be discovered through the use of certain methods of analysis.

The purpose of a phonemic analysis is primarily to find the phonemic system of language, the contrastive sounds (the phonemes), the allophones and the distribution of the allophones. Secondly, it is to describe, as far as possible, the distribution of phonemes.

Procedure .

We leave out here what we call Field Work, by which we mean different approaches used in actual practice. They show us how to interview an informant, how to collect a corpus, either in one sitting or as one gradually builds up one's phonemic analysis and thereby comes to problems which he wants to check and solve by interviewing the informant again. Here we will only give the principles.

There are two essential principles that underlie a phonemic analysis. They are

- a. The principles of classification;
- b. The principles of separation.

a. The Principles of Classification.

This is the principle for classifying phone types into phonemes and for finding out how the phone types are distributed. Included in the principles of classification are

- phonetic similarity,

- complementary distribution,
- free variation,
- patterned congruity.

Among the phone types of a language there are some which share phonetic features with others. These phonetically similar phone types are then gathered together into groups of phone types. These groups are observed further. The members of the group can occupy various environments; they occur in various positions in utterances. If the environment of a phone type is specific to that individual phone type, so that another phonetically similar phone type is excluded in that environment and the two phone types can never occur in the same environment, the two phone types are said to be in a complementary distribution, and they belong to the same class of phone types; they belong to the same phoneme. The two phonetically similar phone types can also occupy the same environment in utterances without differentiating the meaning of the utterances; these two phone types are then said to be in free variation.

The principle of patterned congruity involves grouping of the phone types with respect to their environments in terms of the other most conspicuous phone types and noting certain congruences in the behaviour of those phonetically similar phone types. Therefore, through this patterned congruity we describe the environment of each phone type in relation to other particular phone types, which require the occurrence of that phone type.

Through these four principles of classification we discover the classes of phone types and establish the system of these classes of phone types - the system of phonemes. Then we list the allophones of each phoneme and study their distribution.

b. The Principles of separation .

If in the principles of classification we built up the phonemes from the allophones i.e. by classifying these phone types, through the four principles, into phonemes; in the principle of separation we try to find the contrastive sounds through the comparison of various utterances. There are utterances which differ minimally, that is minimally in meaning and in one phonetic element of the same environment. In these minimal pairs we conclude that the difference in meaning between a minimal pair is caused by the different phonetic elements. Therefore the two phonetic elements are two phonemes. By contrasting these minimal pairs to find which sounds cause different meaning, we can establish the phonemic system. Then we can proceed to the analysis of each phoneme, for the purpose of finding its allophones and to describe the distribution of each allophone.

It is important to note that these two principles work hand in

hand in a phonemic analysis. Sometimes the phonemicist gets into the difficulty of trying to find the minimal pairs so that the process of separation is hard to carry out. Then he can follow the principles of classification. In other cases, however, the minimal pairs occur in great numbers so that the process of separation is more profitable to carry out first. In most cases the two processes are carried out together so that the phonemic system, the phonemes, the allophones with their distribution can be achieved simultaneously.

These two processes are applied for both the analysis of segmental and suprasegmental phonemes. However, the principle of minimal pair is very much in use in the analysis of suprasegmental phonemes. Utterances which have completely the same segmental phonemes but differ in meanings usually have different suprasegmental phonemes.

Thus by trial and error we come to the phonemic system of the language under the guidance of these principles. The number of phonemes in a language is limited; it differs too from one language to another. Each phoneme of a language has a specific number of allophones. The same phoneme of different languages will have different numbers of allophones. The distribution of each allophone is also specific to a language; the environment in which each allophone occurs is different among various languages.

We can never find a phoneme in an utterance, for what actually exist is a member of the phoneme, one of its allophones.

Therefore, a phonemic alphabet, in which each symbol represents one phoneme, can be used to describe the phonemes of any language; the value, however, of each element/symbol is that which is valid for a particular language. As an example we will take /t/ phoneme. In Indonesian we can say /tariy/ as well as /tariy/ for the action called "dance" in English because in Indonesian \bar{t} and \underline{t} belong to the same /t/ phoneme. In Javanese the case is different. If we say /patiy/ and /paty/ we mean to say about two different things i.e. "death" and "essence". So this shows that in Javanese /t/ and \underline{t} are two separate phonemes. Therefore /t/ phoneme has a different value in Javanese and in Indonesian. In Indonesian \bar{t} and \underline{t} are two allophones of /t/ phoneme while in Javanese they are two phonemes.

Using the phonemic alphabet, we can transcribe the utterances of the language. We can have a phonemic transcription. It is different from the phonetic transcription and from traditional orthography. Some of these differences are

Phonemic Transcription	Phonetic Transcription	Traditional Orthography
a. Each symbol represents a distinctive class	a. It represents the actual sound as it exists	a. It does not consistently represent a partic-

- | | | |
|---|---|---|
| of sounds not actually found in speech—a phoneme. | ists in an utterance — an allophone. | ular sound. |
| b.Each symbol has a different value in different languages. | b.each symbol has the same value in any language. | b.Each symbol is interpreted in different ways in different languages. |
| c.The number of the symbols are small but consistent. | c.The number is bigger but consistent. | c.The number is not consistent. |
| d.The transcription if read may not be accepted by the native speaker as actual speech. | d.It is accepted as actual speech. | d.It is strongly determined by the convention in the particular language. |
| e.The symbols are comparatively simple. | e.They are more complex. | e.They are comparatively simple. |

A phonemic description is not complete without the description of the distribution of the phonemes i.e. the possible arrangements of consonant and vowels particular to a language.

"In any language there is a limited, exhaustive list of sound sequences in each permissible sound arrangement. A "sequence" is an actual, occurrent specific sequence of specific phonemes: like the English sequence /me- $\frac{z}{z}$ (net); /spli-/ (split); /-et/ (let); /-ispz/ (lisped). An "arrangement" is a formula notating all similar sequences in terms of "Consonants" (C) and "Vowels" (V): like the English -CV (in pit, knife, shut); CCCV $\bar{}$ (in split, string, squirrel); -V $\bar{}$ (in less, pit, splash); -VCCC (in text, grasped, wisps). A "sequence" consists of specific C's and V's; an "arrangement" is a class of sequences which share an identical ordering of their C's and V's.

(Yao Shen, "English Phonetics", 29, p.127-128).

The description of the phonemes of a language must also list the system of sound sequences in each sound arrangement.

Methodology in Morphology .

In the two previous discussions we dealt with sound units which do not have meaning in themselves. In this discussion we will talk about the minimum sound units that can carry meaning. They have meaning. They can carry meanings as ideas, feelings, effects etc. which they evoke— notional meaning, referential meaning and distributional meaning as well. The three important items in this analysis are morpheme, allomorph, and morph.

A morph is defined as the meaningful sound unit; an allomorph is a class of morph which are phonetically similar and have the same meaning; and a morpheme is a class of allomorphs which share the same meaning and are in complementary distribution.

The purpose of a morphological analysis is to find

- find the number of those minimum sound units which have meaning and what they are;
 - to classify and to find the distributions of those units;
 - to study the morphophonemic variations of those units in various arrangements; and
- to find the morphemic formation of the words of the language.

Procedure .

Here the principles of classification and separation are in use again. The analysis starts with the building up of the corpus i.e. a collection of utterances gathered for the purpose. The utterances are then cut up into segments. This segmenting can be carried out by comparing partially similar utterances and cutting them up. These utterances which differ in meaning with each other will consist of some similar elements and some different ones. These elements, when reduced to a minimum can be considered as morphs i.e. the smallest units of sounds which have meaning. There are morphs which are similar in meaning and similar phonetically. They are grouped into allomorphs. Two allomorphs which are similar in meaning and occur in such a way that each environment excludes that of the other, or in other words allomorphs which occur in complementary distribution, will form a morpheme. This process is carried out under the principles of classification.

There is also another way of arriving at the morphemes. We compare two utterances with the smallest difference in their elements and a partial difference in meaning. In this way we can assume that the different elements possess different meaning. Therefore they are morphemes. By constantly comparing pairs of utterances with that specification we can arrive at all of the morphemes. Then we can seek their allophones and look also for their distribution. This is the principle of separation we carry out.

In actual morphological analysis the two processes i.e. the processes of classification and separation are carried simultaneously. This gives many benefits, such as, that it enables the checking and rechecking of the conclusions, it helps comparing the different conclusions and it helps to solve various problems of analysis etc.

Sometimes, a morpheme appears in a particular shape in a particular utterance because it is influenced or conditioned by other elements in that utterance. The conditioning element can be a sound or a morpheme so that a morpheme may be phonologically or morphologically conditioned. This conditioning is sometimes important for the description of the environments of the allomorphs.

There are phonemic variations among the allophones of each morpheme. They are described through their variations from the base i.e.

a particular allophone which is chosen at random and used as a standard to which other allophones are compared to.

The last step of a morphological analysis is to find out how a word is constructed by morphemes; how these morphemes are arranged in words. By comparing utterances and cutting them into morphemes we can find the morphemic arrangements.

What is written above is only a guiding procedure for a morphological analysis. In field work there will be many problems, the solving of which is not mentioned here.

Methodology in Syntax .

In the morphological analysis the largest units concerned are words. In the analysis of syntax, however, words are the smallest units under consideration.

The purpose of a syntactical analysis is to study the mechanisms and devices by which words are combined into larger units and the total structure of such units. It starts with the identification of the structural signals i.e. devices causing the groupings of words together to have structural meaning - the meaning of the arrangement of those words, abstracted from the lexical meaning. Some of these devices are :

- a. Word order i.e. the linear or time sequences in which words appear in an utterance.
- b. Prosody i.e. patterns of stress, pitch and juncture with which the words of an utterance are spoken.
- c. Function words i.e. words without referential or notional meanings used to indicate various functional relationships among the words of an utterance.
- d. Inflections i.e. morphemic changes - the addition of a morpheme with the accompanying morphophonemic adjustments - which adapts words to perform certain structural functions without changing their lexical meaning.
- e. Derivations i.e. morphemic changes which adapt words to perform certain structural functions and change their lexical meanings.

With the help of these structural signals we can classify words into parts of speech i.e. classes of words grouped together in relation to their position and functions in various structures. Therefore members of a part of speech can occupy that position and assume that function which members of other parts of speech are not capable of.

Then we deal with types of syntactic structures i.e. structures made up of words and having a meaning different from the total of the meaning of the individual words. One then speaks of the elements and the forms and the arrangements of those elements in these different

types. This is carried out by separating and comparing various utterances in terms of their immediate constituents, namely units with which a structure is immediately built up. The basic syntactic structures are arrived at by dividing utterances into their ultimate constituents namely constituent that cannot be divided anymore.

The last step in this analysis is the classification of sentences according to the way they carry out structural meanings and to the elements they are made up of.

If we examine the process of analysis in the analysis of language structure we can see clearly that there is a hierarchy of analysis parallel to the hierarchy of structure of the language elements. We start with the meaningless and non functional speech sounds and then proceed to study only the functional ones. After that we deal with the units of sounds which carry meaning, from the smallest to the largest. This order of subject matters gives us a picture of the successive layers of language structures.

In addition it is also clear that there are still many unsolved problems in the analysis of the larger sound units. However, what is mentioned here may serve as an introductory approach on structural methodology.

CHAPTER V. LINGUISTICS AND THE TEACHING OF LANGUAGE .

The description of the various aspects of linguistics presented in the previous chapters raises the question whether this science can be used in the actual teaching of languages. Like other pure sciences, linguistics has a number of fields of application such as Philology, and the Social Sciences; and, as a positive answer to the above question, also the field of Language Teaching. In this chapter we will focus our attention on the last application mentioned, namely the application of linguistics to the teaching of languages. Therefore we are only dealing with one aspect of applied linguistics, as we are attempting to find a solid foundation for cooperation and mutual help between linguists on one side and language teachers on the other. Much literature on this subject is available at present. It deals with the various ways in which linguistics can help the teaching of reading, writing, composition and other subjects included in the teaching of languages. A good example is the book of C.C.Fries entitled "Linguistics and Reading" (11) which presents an account of the detailed study on how linguistics can be used in the teaching of reading. However the real truth is that the bridge between the two endeavours is not very strong as yet: there are still conflicts and misunderstandings. The very application of linguistics, on the other hand, also helps that science to develop itself.

"There is no cleavage between the pure and the applied in linguistics; on the contrary, each one flourishes, where the other is also flourishing." (14,p.41).

From the history of language study it is clear that there has always been some sort of relation between the study of language and language teaching. This may not be clearly visible, yet the interaction between the two enterprises do seem to be always there. A brief example will be presented here.

Parallel with the use of the one approach in language study, there appeared in the teaching of language a method called the Grammar-Translation method. This method can be simply described as the learning of parts of grammar, such as paradigms, conjugations and parts of speech, together with translation work. The latter usually consisted of the translations of individual sentences, or of literary pieces done word by word. Correctness was absolutely necessary and the standard was that as found in grammar books. The principles of linguistics behind this method are apparent: language is logical, therefore it has a stable form of correctness; there is a universal grammar; the best language is to be found in written forms. The main objective of the teaching of language, therefore, was to discipline the mind, strengthen the memory and give the individual the so called "logical thinking".

The Direct method was a new idea both as a teaching method and as

an insight into language. The main features of the idea are the primacy of speech, the actual communicative use of language, the leaving out of the uses of the native language in the teaching of a foreign language and the understanding that a direct transfer from one language to another in terms of each one's grammar is impossible: each language is complete and new in its own way. This method also proposes the teaching of the language, which is actually in use, rather than the teaching about it.

The new approaches in linguistic study were first of all historical. The influence of this in the classroom was evident in the use of dictionaries with a historical viewpoint. In such dictionaries words are not explained according to the actual present meaning but in etymological or historical terms and illustrated by quotations from accepted works of literature. An example of this type of dictionary is "The New English Dictionary" by James A.H. Murray es. (Clarendon Press, Oxford 1933 - corrected new issue).

New development in linguistic especially in its Descriptive and Structural as well as comparative branches can also be expected to have some influence in the teaching of language. It can be expected that both in the theoretical approach and in the method of language teaching there will be some changes because of the application of new discoveries in linguistics. Linguistics, during these recent years, has made many discoveries on the nature and functioning of language in general and has also made accurate and scientific descriptions of different languages. At present, therefore, we can expect that linguistic science and pedagogy meet and mutually influence each other and that linguists and language teachers are coming to a better understanding, mutual cooperation, and appreciation of the fields, findings and work of the others.

Nevertheless there is still much work to be done in this field because there are still some underlying suspicions existing between the two sciences. Here follow the opinions of two linguists whose names are wellknown.

"Our schools are conducted by persons who, from professors of education down to teachers of classroom, know nothing of the results of linguistic science, not even the relation of writing to speech or of standard language to dialect. In short they do not know what a language is, and yet must teach it, and in consequence waste years of every child's life and reach poor result."

(L. Bloomfield: "Why a Linguistic Society" 1925).

"The rank and file even of English teachers are not equipped to deal with English as a language. In spite of the fact that more time is being spent in the high school English classes in America to day upon grammar and usage than upon any other single phase of instruction, prospective English teachers are given practically no training in preparation for this part of their

task. Usually our English teachers know nothing of Phonetics or of Phonemics and their knowledge of grammar is limited to the kind of sentence analysis to which they were subjected in the grades of primary school and the early years of high school." (C.C.Fries: "Teaching and Learning English as a Second Language" 1945 p.V).

To help pave the way towards a better understanding and cooperation we propose now some kind of analysis of the misunderstandings and conflicts that have arisen.

Full realization must be given towards the objective of both linguists and language teachers. The objectives of the former were already discussed in the previous chapters. They have resulted in certain theories of language, the perfection of various techniques of language analysis, the scientific descriptions of many languages, both the new ones and the old established ones, and the scientific comparative analysis of different languages. Some new fields of linguistics, such as psycholinguistics, are already under observation and the results of these observations are at present appearing. Language teachers have different objectives to achieve. Those dealing with native languages have somewhat different objectives from those dealing with foreign languages. The former are explained by W.N.Francis in his last chapter of his book "The Structure of English" (8, p.544). Teachers of native language do not start from scratch; neither are they in school the only ones dealing with English. Important and decisive formative years have preceded before the child enters school; at home a language has been heard and used by all around him who know nothing of linguistics; the motivation has been great, as language knowledge was imperative for enculturation and socialization. Experts maintain that by the age of 6 a child has fully mastered all the basic structures of his language. In addition it is the opinion of the psychologists that there is a certain age for the reading lesson to start and before this ^{the} reading lesson will meet with almost a total failure.

Moreover, the native language is used for the learning of other subjects. So we can say that its use pervades the whole of learning. The professional English teachers must take account of the others who use the language and who may be cooperative, indifferent or even competitive. In terms of native language; all are more or less competent amateurs. Therefore the primary responsibility of ^{the} language teacher towards his subject matter is to make himself an expert in the field of language. As an addition to W.N.Francis' conclusion we might say that beside being a linguist in a general sense, the language teacher must have a clear idea of the objectives that he wishes to attain in his language classes. Writing, literature, rhetoric and other subjects will certainly be under his consideration as well.

The objectives of the foreign language teacher are different.



considers itself beyond enlightenment by the other. (p.74). The third condition is that some deep and subtle antagonisms are to be solved. Moulton explains these conflicts and gives solutions to overcome them.

The criticisms towards linguists made by language teachers will be our first consideration. Light antagonisms, such as those which are caused by the terminological excesses of linguistics and their enthusiastic exaggeration of the importance of a linguistic approach to language teaching, can be disposed of without too much difficulty. The first important antagonism is that "many of the tenets of linguistics seem to deny certain cultural values that we (language teachers) have long cherished." (p.75). In their cultural tradition language teachers have put more importance and stress on what the students should do with the language they have learned than first on the forms and structure of the language itself, which is a linguistic problem; and second on the best way of analyzing and presenting it, which is a problem of both linguistics and pedagogy. According to the language teachers the students have to study the great things that have been written and spoken in the language. The criticism of the language teachers is that linguistics is unable to contribute anything in this field because it considers language as mechanical and it puts aside all cultural matters in language.

The above statement is in some way true, and linguists will not deny it because linguists look at language and culture as separate from each other and consider them as separate disciplines. Linguists are of the opinion that language is a means to culture, so that it must be learned first by the students before they can learn the culture. Moulton agrees with this and says that in the process towards getting cultural benefits from the language studied, the language itself must be learned first.

"Literature presupposes language," Nelson Brooks says (5,p.97).

Linguists are also criticized as "technical hacks" because they are interested solely in the mechanism of language. Moulton does not pursue this matter further; however, by being "technical hacks" linguists are able to contribute towards language teaching. Language is a verbal behaviour which should be learned as a habit. It is only after having acquired this language habit as an unconsciously used possession that the language learners are able to focus their attention on the content of what being spoken or heard. Therefore a certain language pattern must be mastered mechanically first by the students, through intensive drilling by the teachers, before it can be used in a free and personal way. And this

is the theory which has become the background of the teaching method called Pattern Practice.

The stress linguists put on oral skill in language causes a further antagonism. Linguists maintain that speaking and listening are primary, whereas the cultural tradition of language teachers gives higher prestige to reading and writing. Moulton shows that this antagonism can be avoided if there is a mutual agreement on the meaning of the terms "primary" and "secondary". These two terms, according to Moulton should not be equalized with "of greater value" and of "lesser value" respectively. It is the common opinion nowadays, moreover, that in the early stages of language learning speech is more important than writing; and it is only in the early stages that writing, which the language teacher had primarily in view, gains its great importance.

In the teaching of reading, the importance of which is taken for granted by language teachers and not denied by linguists, the science of linguistics is able to contribute a great deal towards its progress. Besides making an analysis of the written language, linguists have made contrastive analyses to show the relation, of presence or absence, between the orthography and the spoken language and between the forms in the same level of language structure. Linguists have made analyses, for instance of the relation between the phonemes and the orthography and between certain structures that are used. Linguistics might suggest steps towards improvement in the verbal competence and level of verbal comprehension (Carroll p. 155), might give suggestions in grading the reading materials properly, and its theories on word formation and structural meaning it gives better insight into the meaning of words and into their larger forms.

A final criticism against linguists is their attitude towards language correctness. They hold "that language is arbitrary and relative, rather than logical and absolute" (Moulton p. 79). On the other hand, language teachers, who in many cases are educated in the traditional way, impose strict standards in this matter. They criticize linguists as too lax in this point because they themselves place high importance in Latin and in the idea of a universal grammar. Grammar is considered as a set of rules to which a language must conform rather than as a set of organizations, or the way in which the patterns of a particular language behave.

These facts seem to imply that linguists like to criticize the traditional discipline in language learning. Actually this is not so. They only want to point out that the authoritarian attitude in the teaching of language is improper. They show that the descriptive attitude, as used in their descriptive linguistics, will be more

profitable to language teaching. Their analysis of dialects and of the history of language is meant to give a correct picture of the present language used in certain areas, whether geographically or socially different.

" Enlightened English teachers are putting the doctrine of correct usage in its proper perspective " (Carroll p. 151).

The criticisms towards linguists as presented here are in most cases caused by the inability of some linguists in their enthusiasm for the new findings of their science, to put forward their views in a diplomatic way. A calm discussion, like that given by Moulton, may clear the air.

However, language teachers are to be criticized too. Sometimes native speakers are considered to be the best language teachers just because they are native speakers. They are the men who fully possess the skills and the culture of their own language. But it is not sufficient for language teachers, merely to have the skills and the culture. They should also have the knowledge about their language. This first criticism is evident enough, so that it is not necessary for us to pursue this matter further.

Linguists say that the fundamentals of a language can be mastered by a six year old child. This offends language teachers greatly in their professional dignity because they consider their profession to be noble, but now they hear that linguists " seem to place it just barely above the intellectual level of a child " (Moulton, 2, p. 73). The misunderstanding here lies in the idea of language. Language teachers should be able to separate language teaching on the language level and language teaching on the cultural level. In dealing with the former, language teachers might learn from linguists, as to how this level can be achieved, and then apply it on his own way, suitable to the particular language aspects and the students concerned.

Moreover a language teacher, who, as we have seen, deals particularly with the content rather than with the form of language, might learn from the linguists that " language is not an intellectual activity in the usual sense of the word " (2, p. 78), but another example of " learned and shared behaviour ". In the first area of language teaching, speaking can best be described as a matter of habit. On this basis the language class will be conducted differently. Everything is focused on the formation of habits in the learners. Grammatical analysis, for instance, is given with this purpose in mind. Repetitions both in groups and individually, based on sound linguistic, psychological and pedagogical principles, can only but heighten the scientific approach to language learning.

Language teachers of the past were more inclined to teach about the language than the language itself. Carroll (6,p.2) reports that, in practice, one has had little knowledge of the linguistic code, and since the teacher has been brought up in a different tradition of philological and literary interest, language is seen as one of the three R's of the basic educational training. To teach a particular linguistic code, namely "the system of distinct sound symbols underlying the manifest speech behaviour of the individuals comprising a speech community" the language teacher must first get his basic material from the linguists.

In this light, Edward M. Anthony (2,p.93) differentiates teaching approach, methods and techniques. The approach comprises the basic assumptions underlying language and language teaching; the method is procedural, but, in the hierarchical arrangement, must be consistent with the approach. The technique is implementational i.e. tricks or contrivances to accomplish an immediate objective. It hardly concerned us here.

A language teacher, who is also a linguist named C.C.Fries proposes a linguistically based teaching approach which he calls the oral approach. This approach has two features i.e. "a much more clearly defined goal for the first stage of language learning, and a much more complete understanding of what is essential in the materials to be studied in order to gain this goal. (2,p. 84-85).

What we have just mentioned is an example of the existing cooperation between the science of linguistics and language teaching. It seems that these two disciplines have not yet cooperated in any great way. We will now mention what actually has been done "to close the gap"; to come to greater cooperation and interpenetration of the two disciplines.

Writing in 1952 Carroll says (6,p.142) "that an inspection of recent educational literature shows little evidence that educators at large have been signally influenced by the pronouncements of linguistic scientists". Further "there is considerable evidence that contemporary education has been influenced by new doctrines on the nature of language and meaning, even though these new doctrines may not have originated directly in linguistic science." (p.142). Carroll's review in the same book and that of other authors show that, especially because of war-time needs, a great step forward in foreign language teaching has taken place, led by linguists themselves. This step, which was started in the United States Armed Forces, spread out and was later taken over and developed by civilians.

"It was not until 1941 that any considerable body of linguists

assumed the role of active language teachers and attempted wholeheartedly to apply the findings of their science to the practical problems of language teaching."

Moulton 2, p.82).

This has grown into general movement which is spreading out beyond the borders of the United States. The general suggestion is that language teachers should acquire a certain knowledge of linguistics through a course, and various materials have been prepared and published to show the way in which better cooperation between the two disciplines can be achieved. But one example will be given here to show that it still has some weaknesses. Martin Joos in "Current Trends in Linguistics" (24, p.11) asserts that what was needed was a theoretical and a diplomatic solution . One way he suggests in which linguistics can enter the pedagogical field and be accepted there is the audio - visual method which linguistics advocates and which, he says, would be accepted by the teachers. This suggestion looks very simple, but we have shown that a deeper understanding and appreciation of each other's own objectives and fields would offer a more satisfactory and permanent basis for cooperation.

It is significant, however, to note that it is not only linguistics alone that helps language teaching . The opposite is also true. Martin Joos in the same article mentioned above says:

" More or less practical concerns are stimulating the development of linguistics theory among us, especially as the typically American developments have nearly emerged always from practical tasks, and again because the nature of the stimulus helps us to guess the direction of the theoretical developments."

He mentions that the mechanical translation work has involved detailed observation of Transformational or Generative Grammar; that the application of linguistic theory to psychiatric research has especially stimulated development of the theory of para-language, and that the National Defence Act of 1958 has greatly influenced foreign language teaching.

Moulton, in the same work mentioned before is more specific. He mentions four recent developments in linguistics which seem to have direct application to classroom language teaching. In fact however, " the linguists are discovering " something which language teachers have long known and used though not used as effectively as they could have if they had had a sound theory to back them up. (2, p.80). Transformational Grammar is a new thing in linguistics, the concept of transformation, however, is not new to the language teachers, who, for instance, have found that the passive is mostly effectively taught as a transform of the active. "We see developing before our eyes a grammatical theory which makes such transforms a fundamental part of

language structure." (p.80). Similarly "Tagmatics", which we have not mentioned earlier , is a theory which "up to now language teachers have been applying more or less intuitively." The new linguistic theory which divides the vocabulary of all languages into two rather clearly separate types : function words and content words; is something that had earlier been accepted; children were taught all the function words at an early stage, but kept on learning content words throughout their lives. (p.82). Finally, all language teachers have known for a long time that " the vast majority of mistakes our students make come from a totally different source : they result from carrying over into the foreign language the speech habits of English."(p88). This fact makes a methodical analysis of these mistakes possible, and this leads to a new linguistic theory, which has a very important position in the teaching of languages, especially the foreign ones, called "contrastive linguistics ".

As a conclusion we have to admit that the gap between linguists and language teachers still needs to be bridged. Unfortunately some personal feelings sometimes dominate the misunderstanding and suspicion between the two sides. If both sides realize and apply this, we can hope that in the near future further developments in both fields because of their mutual influences, will take place. It is our conviction that a general insight into linguistics will be a significant help for language teachers to make themselves ready for a better cooperation and interaction ^{with} linguists which will be beneficial to their work as well.

BIBLIOGRAPHY .

1. Allen, Harold Boughton (editor), Readings in Applied Linguistics, Appleton Century - Croft, New York 1958 .
2. ———— Teaching English as a Second Language? Mc.Graw Hill Book Company , New York 1955.
3. Bloomfield, Leonard, Language? Holt, Rhinehart and Winston Inc. New York 1933.
4. Bram, Joseph, Language and Society, Random House, New York 1955.
5. Brooks, W.Nelson, Language and Language Learning, Harcourt, Brace and World, New York 1964.
6. Carroll, John B., The Study of Language, A Survey of Linguistics and Related Disciplines in America, Harvard University Press, Cambridge Mass. 1953.
7. English Language Teaching, Volume XI no. 3, May 1966, Oxford University Press, London .
8. Francis, W.Nelson, The Structure of American English, Ronald Press, New York 1958 .
9. Friis, Charles Carpenter, Teaching and Learning English as a Second Language, University of Michigan Press, Ann Arbor Michigan 1954 .
10. ———— The Structure of English: An Introduction to the Construction of English Sentences, Harcourt, Brace and World, New York 1952 .
11. ———— Linguistics and Reading, Holt, Rhinehart and Winston Inc. New York 1963 .
12. Gleason Jr., H.A., An Introduction to Descriptive Linguistics, Holt, Rhinehart and Winston Inc., New York 1961 (Revised) .
13. Halliday, M.A.K., Mc. Intosh, Angus, and Strevens, Peter, The Linguistic Sciences and Language Teaching, Longmans Green and Co. Ltd. , London 1966.
14. Halliday, M.A.K.; Mc.Intosh, Angus, Papers in General, Descriptive and Applied Linguistics, Longmans Green and Co. Ltd., London 1966 .
15. Hajakawa, S.I., Language in Thought and Action, Harcourt, Brace and Co., New York 1949 .
16. Hill, Archibald s., Introduction to Linguistic Structures. From Sounds to Sentences in English, Harcourt, Brace and World Inc., Burlington New York 1958 .
17. Hockett, Charles F., A Course in Modern Linguistics, The Mc.Millan Co., New York 1958.
18. Hughes, John B., The Science of Language, Random House, New York 1963 .

19. Jones, Daniel, The Phoneme, Its Nature and Use, W. Heffer & Sons
Cambridge 1956 .
20. ——— The Pronunciation of English, Cambridge University
Press, Cambridge 1950 .
21. Lado, Robert, Linguistics Across Culture : Applied Linguistics
for Language Teachers, University of Michigan Press,
Ann Arbor Michigan 1957 .
22. Language Learning, A Journal of Applied Linguistics, Volume IV
no. 3 and 4 1952-53 Ann Arbor Michigan .
23. Martinet, Andre, Elements of General Linguistics, The University
of Chicago Press, Chicago 1964 .
24. Mehrmann, G.,cs. (editors) Trends in European and American
Linguistics, 1930-1960, Spectrum Publishers, Utrecht 1966
25. Pike, Kenneth Lee, Phonetics; A Critical Analysis of Phonetic
Theory and a Technic for the Practical Description
of Sounds, University of Michigan Press, Ann Arbor
Michigan 1943 .
26. Ryzenga, John A., Schwartz, Joseph, Perspective of Language -
An Anthology, The Ronald Press Co, New York .
27. Sapir, Edward, Language. An Introduction to the Study of Speech,
Harcourt Brace & Co, New York 1949 .
28. ——— Culture, Language and Personality, (Selected Essays -
Mildenbaum, David G. -editors) University of Califor-
nia Press, Berkeley & Los Angeles 1960 .
29. Shen, Yeo, English Phonetics, University of Michigan Press, Ann
Arbor Michigan 1962 .
30. Strang, Barbara M.E., Modern English Structure, St. Martin Press
New York 1963 .
31. Sturtevant, Edgar H., An Introduction to Linguistic Science,
Yale University Press, New Haven 1960 .

