

Chapter 2

LINGUISTICS: DEFINITION, NATURE AND SCOPE

WHAT IS LINGUISTICS ?

The word 'Linguistics, has been derived from Latin *lingua* (tongue) and *istics* (knowledge or science). Etymologically, therefore, linguistics is the scientific study of language. But it is the study not of one particular language but of human language in general. It studies language as a universal and recognizable part of human behaviour. It attempts to describe and analyse language. The field of linguistics comprises language in all its form and manifestations. Its aim is to seek a scientific understanding of the place of language in human life, the ways in which it is organized to fulfil the needs it serves, and the functions it performs.

So linguistics is that science which studies the origin, organization, nature and development of language descriptively, historically, comparatively and explicitly, and formulates the general rules related to language. **Diachronic (historical) linguistics** studies the development of language through history, through time, for example, the way in which French and Italian have evolved from Latin. **Synchronic linguistics** investigates

how the people speak and use language in a given speech community at a given time. In **Comparative linguistics** one is concerned with comparing two or more different languages.

IS LINGUISTICS A SCIENCE ?

Linguistics is the scientific study of language. Like all other sciences linguistics has a well-defined subject matter, natural languages, living or dead; it employs careful methods to observe, record and analyse the various phenomena related to its subject matter and hopes to produce unprejudiced, objective and verifiable descriptions. The approach and methodology of linguistics is scientific. It is as inductive as a science could be, and is based on observations, formation of hypothesis, testing, verification, tentativeness and predictiveness.

Again like a scientist a linguist develops hypotheses, makes generalized statements and tests them against the fact of languages. When a linguist or a phonetician makes a statement about languages, he makes it on the basis of observation. First he observes linguistic events. He finds some similarities and contrasts on the basis of which he makes second generalization. On the basis of these generalizations hypotheses are formulated to account for the events. These are tested by further observations, and out of them is constructed a theory of how language works. From the theory are derived methods for making statements about linguistic events. The statements link the theory to the events it is set up to account for, and they can now be evaluated by reference both to the theory and to the events: the best statements are those which make maximum use of the theory to account most fully for the facts. And finally, like a true scientist, he is constantly engaged in discovering more about languages, in refining his methods of investigation, and in constructing better theories. He also tries to find out linguistic universals.

Like any scientific discipline, linguistics too is not static. Viewpoints and theoretical models in the field.

change even in fundamental ways from time to time, and different aspects come to receive primary focus at different times. Linguistics has more than its share of unresolved controversies and unsolved questions, which is a part of its fascination and challenge.

Finally its closeness with other natural sciences like mathematics, physics, physiology, biology, zoology, etc., is another proof of its scientific nature. 'It touches on physics through acoustics, on physiology through the structure of the human vocal organs, on zoology through the comparative study of the communicative systems of living beings.' A glance on any book on transformational-generative grammar would convince any objective onlooker how linguistics is becoming more and more scientific. Furthermore, as mentioned by R.H. Robins, linguistics in its operations and statements is guided by three canons of science: (1) exhaustiveness, the adequate treatment of all the relevant material; (2) consistency, the absence of contradiction between different parts of the total statement, and (3) economy, whereby, other things being equal, a shorter statement or analysis employing fewer terms is to be preferred to one that is longer or more involved. Consequently, linguistics is getting more and more technical and sophisticated every day. Yet it is not a pure science. Its position, says R.A. Hall, is between the natural and social sciences, like that of geology. To Robins it is an 'empirical science,' and within the empirical sciences it is 'one of the social sciences,' because its subject matter is human, and is 'very much different from that of natural sciences.'

Nevertheless, linguistics, is the scientific study of language. It may be inductive or deductive; it is however, objective, precised, tentative and systematic; it is concerned with reportable facts, methods, and principles; it works by means of observations, hypotheses, experiments and tests, postulates, and inferences; it makes generalizations and predictions; it formulates theories; its products are descriptive verbal or algebraic statements about language.

LINGUISTIC LEVELS

By 'linguistic levels' is meant the levels of language structure. There is a considerable difference among the linguists about the number and terminology of linguistic levels. Robert Hall (1969 :32) recommends three levels—**phonology** (phonemics—phonetics), **morphology** and **syntax**. R.H. Robins (1971 :11) mentions **phonology**, **grammar** and **semantics**. Hockett (1973 :137-138) advocates the following five levels which he calls 'subsystems':—

- (i) **The grammatical system:** It is a stock of morphemes, and the arrangements in which they occur;
- (ii) **The phonological system:** It is a stock of phonemes, and the assignments in which they occur.
- (iii) **The morphophonemic system:** It is the code which ties together the grammatical and the phonological system;
- (iv) **The semantic system:** It associates various morphemes, and arrangements in which morphemes can be put, with things and situations, or kinds of things and situations;
- (v) **The phonemic system:** It denotes the ways in which sequences of phonemes are converted into sound waves by the articulation of a speaker, and are decoded from the speech signal by a hearer.

Hockett calls the first three "central" subsystems, and the last two "peripheral" subsystems.

Such a labelling of names, however, should not lead one to confusion. There are not basic differences about the structure of language. Such a classification is done by the linguist for the sake of convenience in the study of his subject-matter, i.e., language which is a complex phenomenon. All these levels are inter-related aspects of his subject-matter, quite often over-lapping. Any separation or classification should not be treated as rigid

or opaque. A linguist has to describe human language and human beings do not use just one level of it at a time.

Broadly speaking, there are three aspects of language activity, leading to three separate linguistic levels—SUBSTANCE, FORM and CONTEXT. The substance is the raw material of language: auditory (PHONIC substance) or visual (GRAPHIC substance). The form is the organization, the internal structure, it is grammar+lexis. The context is the relationship between form and situation, which we call meaning (Semantics). The linguistic science has to account for language at all these levels.

✓ **Phonetics:** Phonetics is the study of speech processes including the anatomy, neurology and pathology of speech, the articulation, classification and perception of speech sounds. Phonetics is a pure science and need not be studied in relation to a particular language. Some phoneticians consider phonetics to be outside the central core of linguistic proper, but most would include it under the heading 'linguistic science'.

The study of phonetics can be divided into three main branches, ARTICULATORY PHONETICS, the study of the movement of the speech organs in the articulation of speech, ACOUSTIC PHONETICS, the study of the physical properties of speech sounds such as frequency and amplitude in their transmission, and AUDITORY PHONETICS, the study of hearing and the perception of speech sounds.

Grammatical Level—Grammatical level comprises of (a) SYNTAX, and (b) MORPHOLOGY.

(a) **Syntax**—Syntax is that branch of grammar which is concerned with the study of the arrangement of words in sentences and of the means by which such relations as inflexion, word order, etc., are shown. It is the grammar of sentence.

(b) **Morphology**—Morphology is that part of syntax or grammar which is concerned with the study and analysis of the structure, form and classes of words.

It includes not only synchronic studies (morphemics), but also the history and development of word-forms (diachronic morphology). Morphology is the grammar of word.

Semantics—Semantics is the study of meaning and its manifestation in language. Formerly meaning was studied under philosophy and logic. But now it has become a part of the linguistic study. Its smallest unit is "sememe", the minimum functional unit of meaning. But sememe cannot be established with the same type of precision as phonemes, morphemes, and syntactic units.

LINGUISTICS AND RELATED FIELDS

1. Linguistics and Anthropology

Broadly speaking, anthropology is the study of mankind and of culture. Its main subdivisions are physical anthropology and cultural anthropology. Linguistics is a branch of cultural anthropology. The chief contribution of cultural anthropology, as a whole, to the study of language has been the broadening of linguists' outlooks so that their horizons include, not only languages, but culture of many different types. It has helped in removing the misconception that one language is superior to the other in accepting a generalization that all languages are complex and are adequate to the needs of the respective communities, and in establishing certain linguistic universals. It has also made clear to the linguist the fact that languages are not 'primitive' although cultures may be primitive. Furthermore, a language is a language even if it has no writing system.

On another level, linguistics has made a very valuable contribution to the methodology of social sciences, through the concept of the functional unit and the distinctive feature of behaviour, etc. Anthropology has benefited from linguistics in the field of individual and social group learning process, correlation between heredity and linguistic structure, etc. The fact that a man's dialect is the mirror of his culture has also been beneficial to the anthropologists and sociologists.

Now-a-days, the relationship between linguistics and anthropology is less close. But at the same time a new discipline called Sociolinguistics is expanding rapidly, meaning thereby, sociology and linguistics are getting closer.

2. Linguistics and Philosophy

Association between philosophy and language and linguistics has indeed been historically very long. In fact, it were the philosophers who first of all speculated on language. Plato's Dialogues have explicit reference to language. In the field of semantics, philosophy has contributed tremendous insight to the linguists. The structural linguists ignored meaning because they thought it to be a subject of philosophy.

Yet there are deep-rooted differences between philosophy and linguistics. The philosopher's concern is with 'the uses of language for certain purposes that are common to many communities' he is not interested in the detailed differences between languages; the linguist's concern is with 'the details of each language for its own sake', and he evolves and evaluates theories primarily to deal with particular languages. The linguist is particularly interested in the formal structuring of the sentences of a language; the philosopher is interested in the logical structure and the inferential possibilities of the propositions they express irrespective of the grammar of any particular language. Hence both these disciplines are getting remote from each other these days.

3. Linguistics and Psychology

Linguistics studies human language. Language is behaviour or a cognitive process o. both, is still a controversial issue, yet it is well accepted that psychology is the study of human behaviour and human mind. Hence both linguistics and psychology are closely related.

Investigations and attempts to find out answers to certain fundamental questions like the following are likely to provide invaluable clues to the linguist: What is the principle of learning? How is language learned by a child? Does he learn by merely imitating the sounds he hears? How does a child select the sounds that belong to

the language he is exposed to, and ignore all other sounds? Does the learning of the mother tongue involve the same processes as the learning of a second or a foreign language? Is language learning a result of stimulus-response, imitation, repetition and reinforcement, or of exposure? Can a child whose brain is injured in an accident relearn a language? Does the loss of linguistic skills affect his other skills? What roles do memory, motivation, age and aptitude play in language learning? Surely the answers to such questions would help both the linguist and the scientist.

4. Linguistics and Literature

The nature of language is of vital concern to the students of literature, because language is the medium in which literature is written. A creative writer is never wholly free from linguistic and cultural considerations or limitations howsoever unconscious of these he may be literally. He has to choose his structures and sounds according to the kind of aesthetic effect he wants to create. His creation is determined by the structure of the language. The structure determines what can and cannot be said in the language, just as his cultural background determines the semantic content of his work. All linguistic levels exert an influence on his creativity and on what he creates. All these factors influence his style. Word-formation can often be used as a source for particular literary effect. It is linguistics which can scientifically explain the difficulties of translating a literary text, especially a poem. In return, it is the literary artist who enriches a language enormously, and refines it. It is he who also sets direction of language change by his distinct use and coinages and word-formations. Applying linguistics to the study of poetry and other forms of literature under the name of "Stylistics" is another testimony of the closeness between linguistics and literature. Among other fine arts music is much closer to linguistics than any other branch of fine arts.

5. Linguistics and the Natural Sciences

Linguistics touches the natural sciences such as physics, physiology and zoology. Acoustics brings

linguistic near physics, the structure of the human vocal organs near physiology and the communicative systems of living beings and their comparison near zoology. A fairly detailed knowledge offered by these sciences about how sound-waves are framed, transmitted and received, what are the organs and articulatory processes involved in the production of speech are of immense help to the linguist. On the basis of such information he classifies sounds, and determines their characteristics. Physiology provides him knowledge about brain and the central nervous system.

Language is speech uttered out of mouth. Hence the answers to questions like—how are sounds produced? how does the wind come out of the lungs through the windpipe to the vocal cords to pass through the mouth or nasal passage? How do various speech organs such as vocal cords, soft-palate, tongue, teeth lips, etc. affect the sound?—are of primary interest and investigation for the linguist. He can find out answers to such questions, from biologist.

Science has contributed a great deal to the methodology of linguistics. It has formalized it; it has made it much more rigorous, objective and scientific. It has helped the linguist to describe language too. Yet in its methodology, linguistics is 'intermediate' between the natural and social sciences. This is because of the subject matter of linguistics which is complicated and full of many variables. Predictions of the linguist are not exactly like those of the natural scientist. Linguistics may, therefore, be compared with geology rather than with chemistry or physics in matters of approach and methodology.

DESCRIPTIVE HISTORICAL AND COMPARATIVE LINGUISTICS

General linguistics includes a number of related subjects involved in the study of language as understood in the preceding paragraphs. General linguistics can

broadly be divided into the three sub-divisions—descriptive, historical and comparative linguistics.

1. **Descriptive linguistics** is concerned with the description and analysis of the ways in which a language operates and is used by a given set of speakers at a given time. This time may be present. The time may equally well be the past, where adequate written records are available. Nor is the descriptive study of a particular language concerned with the description of other languages at the same time. Descriptive linguistics is often regarded as the major part of general linguistics, and certainly the fundamental aspect of the study of language.

2. **Historical linguistics** is the study of developments in languages in the course of time. It is the diachronic study of the language. It studies language change, and the causes and results of such changes.

3. **Comparative linguistics** is concerned with comparing from one or more points of view two or more different languages. Comparative linguistics traces the evolution of language and, by comparing one with another, establishes the relationships between them. This comparison is generally done between the languages which are genetically related, that is, those that have developed from some common source.

TYPICAL QUESTIONS

1. **What is linguistics?**
2. **Is linguistics a science?**
3. **Comment on the scope of linguistics.**
4. **What are linguistic levels?**
5. **What are the main aspects of linguistics?**
6. **In what ways have linguistics benefited from the insights offered by scholars in other disciplines?**

7. *What do you understand by the following:- Phonology, Morphology, Syntax, Semantics.*
8. *Describe how exposure to linguistics helps an anthropologist, a psychologist, a philosopher, a sociologist and a logician.*
9. *Describe the levels of linguistics analysis with reference to English.*
10. *'Language has so many interrelationship with various aspects of human life. Linguistics, therefore, is not isolated and wholly autonomous. It draws upon several sciences and, in turn, makes its own essential contribution to these disciplines.'*
In the light of this statement discuss the relationship of linguistics and briefly describe some of the major branches of linguistic science.
11. *Describe some of the methods of analysis employed by linguists and the resultant linguistic descriptions.*
12. *In what sense is linguistics a Science? Discuss its relation with other sciences and indicate the aim and scope of linguistics.*