Chapter 1

What is linguistics?

LINGUISTICS IS USUALLY DEFINED as 'the scientific study of language'. Such a statement, however, raises two further questions: what do we mean by 'scientific'? and what do we mean by 'language'? The first one can be answered relatively easily but the second needs to be examined more fully. When we say that a linguist aims to be scientific, we mean that he attempts to study language in much the same way as a scientist studies physics or chemistry, that is systematically, and as far as possible without prejudice. It means observing language use, forming hypotheses about it, testing these hypotheses and then refining them on the basis of the evidence collected. To get a simplified idea of what is meant, consider the following example. With regard to English, we might make a hypothesis that adjectives always precede nouns. In support of this hypothesis, we could produce the following acceptable uses:

a good man

a dead tree

But against our hypothesis, we would find the following acceptable sentences:

The man is good.

The tree is dead.

where our adjectives do not precede the nouns they modify. In addition, a careful study of the language would produce further samples such as:

life everlasting

mission impossible

where, once again, the position of the adjective contradicts our original hypothesis. When we have carried out a detailed examination of adjectives in English, we are in a position to say that adjectives in English are used in two main ways: (*a*) they can be used attributively, that is before a noun, as in:

a good man

and: (*b*) they can be used predicatively, that is following a verb, as in:

The man is good.

Such rules would cover the uses of most adjectives in English. It would be necessary, however, to add a further rule. In English a finite number of adjectives, borrowed from other languages or used in fixed phrases, follow the nouns they modify. Such a finite list would include:

astronomer royal
attorney general
court martial
heir apparent
prince imperial
princess royal

What is language?

Put at its simplest, a language is a set of signals by which we communicate. Human beings are not the only species to have an elaborate communication system. Bees communicate about honey and about the siting of a new hive; chimpanzees can use vocalisations to warn of danger, to signal the finding of food or to indicate attitudes to mating; and dolphins can communicate information on food and danger by means of whistles and clicks. It is not possible in a short book to illustrate all the similarities and differences between human and animal communication. Nor would it prove fruitful to discuss whether human languages developed from earlier, simpler signalling systems. The evidence is just not available. Language seems to be as old as our species. It is not so much that we have missing links in a chain from simple communication system to complex human language. It is the chain that is missing and all we have are a few intriguing links. What we can say with confidence is that even if human languages do not differ in *essence* from animal communication, they certainly differ in *degree*. Nothing in the animal kingdom even approximates to human language for flexibility, complexity, precision, productivity and sheer quantity. Humans have learnt to make infinite use of finite means.

There are a number of other general points that are worth making about language. First, human language is not only a vocal system of communication. It can be expressed in writing, with the result that it is not limited in time or space. Secondly, each language is both arbitrary and systematic. By this we mean that no two languages behave in exactly the same way yet each language has its own set of rules. Again,

a number of examples will clarify this point. The word for 'water' is 'eau' in French, 'uisce' in Gaelic. There is no intrinsic relationship between any of these words and the chemical compound H_2O which we know as water. The choice of word is arbitrary, that is non-predictable, but speakers of French and Gaelic regularly and habitually use the word from their language to refer to H_2O. The same is true with regard to sentences. In English, we say:

I am hungry.

in French:

J'ai faim. (literally, I have hunger)

and in Gaelic:

Tá ocras orm. (literally, Be hunger on me)

There is no way in which we could say that one is more 'natural' or more 'appropriate' than either of the others. Languages are arbitrary in their selection and combination of items but systematic in that similar ideas are expressed in similar ways, thus:

English: I am thirsty.
French: J'ai soif. (literally, I have thirst)
Gaelic: Tá tart orm. (literally, Be thirst on me)

And finally, there are no primitive or inferior languages. People may live in the most primitive conditions but all languages appear to be equally complex and all are absolutely adequate to the needs of their users. It used to be believed that somewhere in the world would be found a simple language, a sort of linguistic missing link between animal communication and the language of technologically advanced societies. People have been found in remote parts of Papua New Guinea and in the Amazon Basin whose way of life has not changed for thousands of years and yet their languages are as subtle, as highly organised, as flexible and as useful as those found in any other part of the world.

Language and medium

A language is an abstraction based on the linguistic behaviour of its users. It is not to be equated precisely with speech because no speaker has total mastery of the entire system and every speaker is capable of using the language inadequately through tiredness, illness or inattention. All normal children of all races learn to speak the language of their community, so speech has often been seen as the

primary medium of language. The abstract system which is language can also be realised as writing, and although speech and writing have much in common, they are not to be equated or hierarchically ordered. Many books will claim that speech is 'primary' and this is true in a number of ways:

(*a*) writing is a relatively recent development in human societies
(*b*) thousands of speech communities rely solely on speech
(*c*) all of us speak a great deal more than we write
(*d*) although we acquire speech without conscious effort, learning to read and write is usually less spontaneous and less automatic

It is not, however, 'primary' if we interpret 'primary' to mean 'more important'. Speech and writing are not in competition. They are complementary and both are necessary in a technologically advanced society. We can sum up the relationship between language and its mediums in a diagram as shown in Fig. 1:

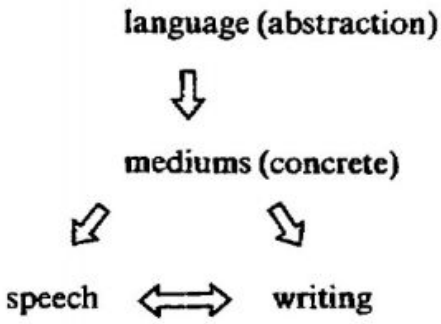


FIG. 1: The relationship between language and its mediums

The diagram indicates that, although speech and writing are in theory distinct, they can and do influence each other. A simple example of this is that pronunciation is often affected by spelling. A word like 'often', for example, is now frequently pronounced with a 't' because of influence from the written medium.

Consider briefly the main differences between speech and writing, the two main mediums in which language is realised:

Speech	*Writing*
Composed of sounds	Composed of letters/signs
Makes use of intonation, pitch, rhythm, tempo	Makes use of punctuation and other graphological devices like italics
Produced effortlessly – no tools required	Produced with effort – tools required

Speech	*Writing*
Transitory	Relatively permanent
Perceived by the ear	Perceived by the eye
Addressee present	Addressee absent
Immediate feedback	Feedback delayed
Meaning helped by context, body movement, gestures	Meaning must be made clear within the context
Spontaneous	Not spontaneous
Associative	Logical

Such a list is sufficient to indicate that speech and writing are very different mediums. Furthermore, they can function independently of each other. We do not have to speak a language in order to read and write it. Nor does an ability to speak a language give a person automatic access to writing. Yet there are links between the mediums. Most writing systems are based on speech. As far as English is concerned, there is a ***rough*** equivalence between sounds and letters. Thus, most people can distinguish three sounds in the composition of the word that is written 'bat' and a different three in the word that is written 'pen'. The equivalence between sounds and letters is not, however, very close in English. We find, for example, only three sounds in the following words of five letters:

knead

rough

In addition, the sounds of these words can be represented in more than one way, so that 'need' is pronounced in exactly the same way as 'knead' and 'ruff' sounds exactly the same as 'rough'. Nor are these the only mismatches that occur between English sounds and letters. The 'ee' sound can be represented in at least six different ways:

beef

chief

deceive

even

machine

meat

and the 's' sound of 'sand' can be represented by both 's' and 'c':

ceiling

sealing

Most European languages are 'alphabetic', that is, there is a link between sounds and letters, but other links are possible. In Chinese the link is between a unit of meaning and a character:

 down

 up

 man

 word

'Man' and 'word', however, can be combined to make 'honest':

Chinese speakers from different parts of China may pronounce these characters differently but the written character always has the same meaning. A comparison with European languages may be helpful here. Although English, French and Gaelic are all alphabetic languages, they have all borrowed the numerical symbols 1,2,3 . . . from Arabic. The English write them 'one, two, three', the French 'un, deux, trois' and the Irish 'aon, dá, trí' and each group pronounces them differently. Yet all users interpret the symbols 1,2,3 . . . in the same way.

The components of language

When a parrot utters words or phrases in our language, we understand them although it is reasonably safe to assume that the parrot does not. The parrot may be able to reproduce intelligible units from the spoken medium but has no awareness of the abstract system behind the medium. Similarly, if we hear a stream of sounds in a language we do not know, we may recognise by the tone of voice whether the person is angry or annoyed but the exact meaning eludes us. To have mastery of a language, therefore, means being able to produce an infinite number of language patterns which are comprehensible to other users of the language, and in addition, being able to decipher the infinity of language patterns produced by other users of the language. It is thus a two-way process involving both production and reception.

As far as speech is concerned, the process involves associating

sounds with meaning and meaning with sounds. With writing, on the other hand, language competence involves the association of a meaning (and sometimes sounds) with a sign, a visual symbol. Thus, our study of language will involve us in an appraisal of all of the following levels of language:

language
↕
phonology – sounds
↕
morphology – meaningful combinations of sounds
↕
lexis – words
↕
syntax – meaningful combinations of words
↕
semantics – meaning

When we have examined these levels and the way they interact, we will have acquired the necessary tools to study languages in general (linguistics), the variety in language and the uses to which people put languages (sociolinguistics), the ways in which people teach and learn languages (applied linguistics) and the value of the study of language in understanding the human mind (psycholinguistics).

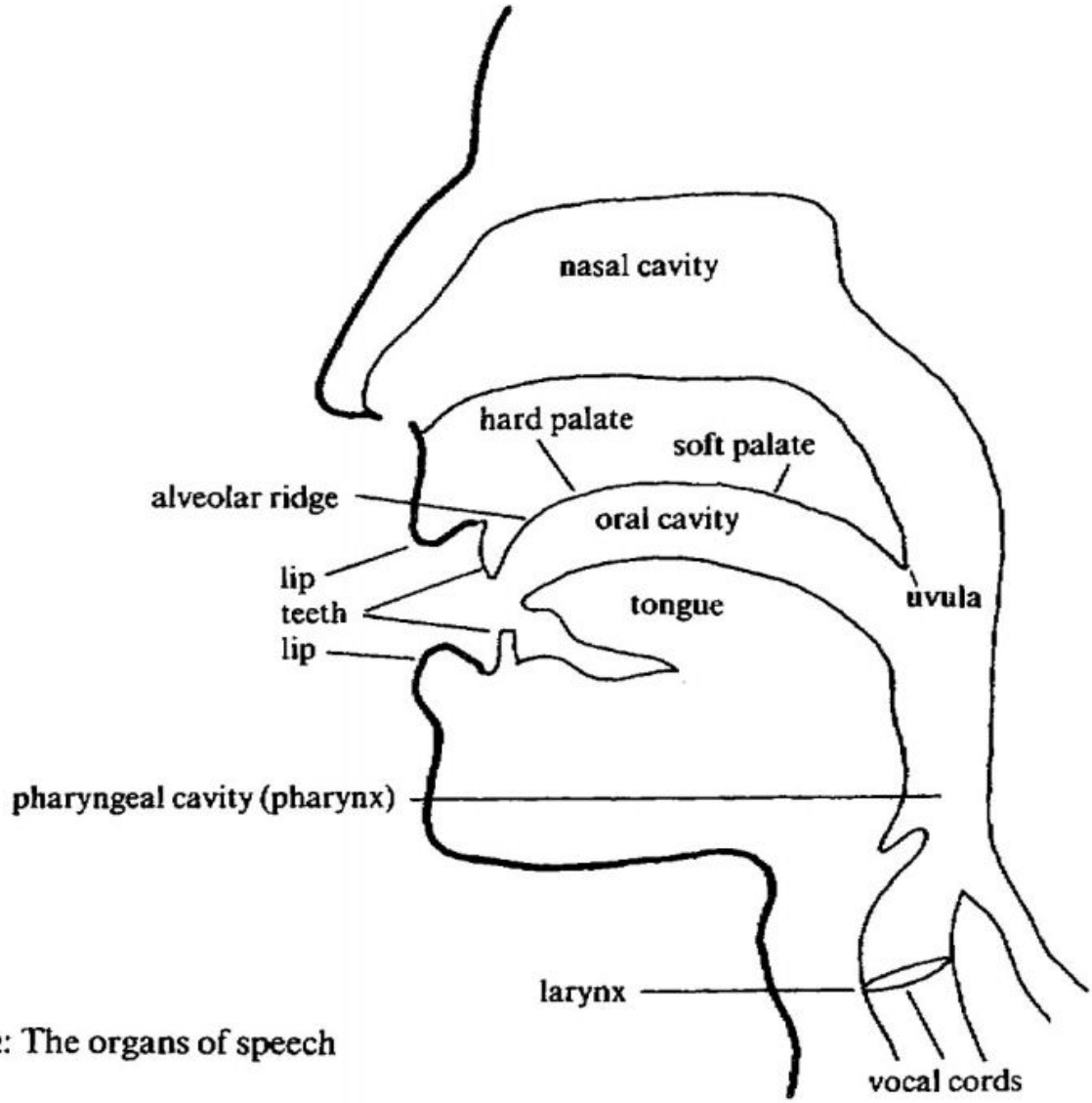
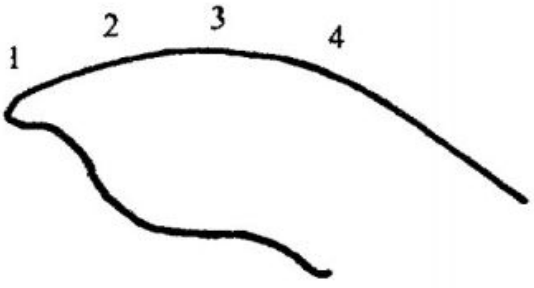


FIG. 2: The organs of speech



KEY:

1. Tip
2. Blade (or lamina) – lies opposite the alveolar ridge when the tongue is at rest
3. Front – lies opposite the hard palate
4. Back (or dorsum) – lies opposite the soft palate

FIG. 3: Subdivisions of the tongue