2
Linguistics

2.1 *Branches of linguistics*

As we have seen, both language in general and particular languages can be studied from different points of view. Therefore, the field of linguistics as a whole can be divided into several subfields according to the point of view that is adopted or the special emphasis that is given to one set of phenomena, or assumptions, rather than another.

The first distinction to be drawn is between **general** and **descriptive** linguistics. This is in itself straightforward enough. It corresponds to the distinction between studying language in general and describing particular languages. The question "What is language?" which, in the previous chapter, was said to be the central defining question of the whole discipline is more properly seen as the central question in general linguistics. General linguistics and descriptive linguistics are by no means unrelated. Each depends, explicitly or implicitly upon the other: general linguistics supplies the concepts and categories in terms of which particular languages are to be analysed; descriptive linguistics, in its turn, provides the data which confirm or refute the propositions and theories put forward in general linguistics. For example, the general linguist might formulate the hypothesis that all languages have nouns and verbs. The descriptive linguist might refute this with empirical evidence that there is at least one language in the description of which the distinction between nouns and verbs cannot be established. But in order to refute, or confirm, the hypothesis the descriptive linguist must operate with some concepts of 'noun' and 'verb' which have been supplied to him by the general linguist.

There are of course all sorts of reasons why one might wish to describe a particular language. Many of those working in descriptive linguistics will be doing so, not because they are interested in

providing data for general linguistics or in testing conflicting theories and hypotheses, but because they wish to produce a reference grammar or dictionary for practical purposes. But this fact does not affect the interdependence of the two complementary subfields of general and descriptive linguistics.

Throughout the nineteenth century, linguists were very much concerned with investigating the details of the historical development of particular languages and with formulating general hypotheses about language-change. The branch of the discipline that deals with these matters is now known, naturally enough, as **historical linguistics**. It is obvious that in historical linguistics, as in non-historical linguistics, one can be interested in language in general or in particular languages. It is convenient to mention at this point the more technical terms 'diachronic' and 'synchronic'. These were first used by Saussure (whose distinction of 'langue' and 'parole' was referred to in the preceding chapter). A **diachronic** description of a language traces the historical development of the language and records the changes that have taken place in it between successive points in time: 'diachronic' is equivalent, therefore, to 'historical'. A **synchronic** description of a language is non-historical: it presents an account of the language as it is at some particular point in time.

A third dichotomy is that which holds between **theoretical** and **applied** linguistics. Briefly, theoretical linguistics studies language and languages with a view to constructing a theory of their structure and functions and without regard to any practical applications that the investigation of language and languages might have, whereas applied linguistics has as its concerns the application of the concepts and findings of linguistics to a variety of practical tasks, including language-teaching. In principle, the distinction between the theoretical and the applied is independent of the other two distinctions drawn so far. In practice, there is little difference made between the terms 'theoretical linguistics' and 'general linguistics': it is taken for granted by most of those who use the term 'theoretical linguistics' that the goal of theoretical linguistics is the formulation of a satisfactory theory of the structure of language in general. As far as applied linguistics is concerned, it is clear that it draws on both the general and the descriptive branches of the subject.

The fourth, and final, dichotomy has to do with a narrower and a broader view of the scope of the subject. There is no generally accepted terminological distinction for this: we will use the terms 'microlinguistics' and 'macrolinguistics', saying that in **microlinguistics** one adopts the narrower view and in **macrolinguistics** the broader view. At its narrowest microlinguistics is concerned solely with the structure of language-systems, without regard to the way in which languages are acquired, stored in the brain or used in their various functions; without regard to the interdependence of language and culture; without regard to the physiological and psychological mechanisms that are involved in language-behaviour; in short, without regard to anything other than the language-system, considered (as Saussure, or rather his editors, put it) in itself and for itself. At its broadest, macrolinguistics is concerned with everything that pertains in any way at all to language and languages.

Since many disciplines other than linguistics are concerned with language, it is not surprising that several interdisciplinary areas should have been identified within macrolinguistics and given a distinctive name: sociolinguistics, psycholinguistics, ethnolinguistics, stylistics, etc.

One point that must be emphasized is that the distinction between microlinguistics and macrolinguistics is independent of the distinction between theoretical and applied linguistics. There is, in principle, a theoretical aspect to every branch of macrolinguistics. It so happens that in such areas of applied linguistics as language-teaching it is essential to take the broader, rather than the narrower, view of the structure and functions of languages. This is why some authors have incorporated what is here called macrolinguistics within applied linguistics.

We shall look at some areas of macrolinguistics in later chapters. It might be thought that, in view of the acknowledged importance of language to so many disciplines, linguistics ought to take the broadest possible view of its subject-matter. There is a sense in which this is true. The problem is that there is not yet, and may never be, a satisfactory theoretical framework within which we can view language simultaneously from a psychological, a sociological, a cultural, an aesthetic and a neurophysiological point of view (not to mention several other equally relevant viewpoints). Most linguists nowadays would say that it is theoretical synchronic microlinguistics that constitutes the core of their discipline and gives it whatever unity and coherence it has. Almost half of this book will be devoted to this central core; the rest will be concerned with historical linguistics and with selected areas of macrolinguistics.

2.2 *Is linguistics a science?*

Linguistics is usually defined as the science of language or, alternatively, as the scientific study of language (cf. 1.1). The very fact that there should be a section, in this book and in other introductions to linguistics, devoted explicitly to a discussion of the scientific status of the discipline should not pass without comment. After all, disciplines whose scientific status is unquestioned – physics, chemistry, biology, etc. – feel no need to justify their claim to be called sciences. Why should linguistics be so concerned to defend the validity of its title? And why is it that, in defending his scientific credentials, the linguist so often gives the impression of protesting too much? The reader has every right to be suspicious.

The first point that must be made is that the English word 'science' is much narrower in its coverage than many of its conventionally accepted translation-equivalents in other languages: such as 'Wissenschaft' in German, 'nauka' in Russian and even 'science' in French. Linguistics suffers more than most disciplines do from the very specific implications of the English words 'science' and 'scientific', which refer, first and foremost, to the natural sciences and the methods of investigation characteristic of them. This is still true, even though such phrases as 'the social sciences', 'the behavioural sciences' and even 'the human sciences' are increasingly common. Should we then interpret the word 'science' in the heading to this section to mean simply "properly constituted academic discipline"?

There is rather more to the question than this interpretation would suggest. Most linguists who subscribe to the definition of their discipline as the scientific study of language do so because they have in mind some distinction between a scientific and a non-scientific way of doing things. They may disagree about some of the implications of the term 'scientific', as do philosophers and historians of science. But they are in general agreement about the

principal differences between the scientific and non-scientific study of language. Let us begin, then, with these points of agreement.

The first, and most important of these is that linguistics is **empirical**, rather than speculative or intuitive: it operates with publicly verifiable data obtained by means of observation or experiment. To be empirical, in this sense, is for most people the very hallmark of science. Closely related to the property of being empirically based is that of **objectivity**. Language is something that we tend to take for granted; something with which we are familiar from childhood in a practical, unreflecting manner. This practical familiarity with language tends to stand in the way of its objective examination. There are all sorts of social, cultural and nationalistic prejudices associated with the layman's view of language and of particular languages. For example, one accent or dialect of a particular language might be thought to be inherently purer than another; or again one language might be held to be more primitive than another. Objectivity demands, at the very least, that beliefs like these should be challenged and terms like 'pure' and 'primitive' either clearly defined or rejected.

Many of the ideas about language which the linguist calls into question, if he does not abandon them entirely, might appear to be a matter of downright common sense. But, as Bloomfield (1935: 3) remarked of the common-sense way of dealing with linguistic questions: "like much else that masquerades as common sense, it is in fact highly sophisticated and derives, at no great distance, from the speculations of ancient and medieval philosophers". Not all linguists have as low an opinion of these philosophical speculations about language as Bloomfield had. But his general point is valid. The terms that the layman uses to talk about language and the attitudes that he has with respect to language have a history to them. They would often seem less obviously applicable or self-evident if he knew something of their historical origin.

We shall not go into the history of linguistics in this book. Some general comments, however, are in order. It is customary for introductions to linguistics to draw a sharp distinction between **traditional grammar** and modern linguistics, contrasting the scientific status of the latter with the non-scientific status of the former. There is good reason to draw this distinction and to point out that

many of the popular misconceptions about language that are current in our society can be explained, historically, in terms of the philosophical and cultural assumptions which determined the development of traditional grammar. Some of these misconceptions will be listed and discussed in the following section. It must be emphasized, however, that linguistics, like any other discipline, builds on the past, not only by challenging and refuting traditional doctrines but also by developing and reformulating them. Many recent works on linguistics, in describing the great advances made in the scientific investigation of language in the past hundred years or so, have neglected to emphasize the continuity of Western linguistic theory from the earliest times to the present day. They have often been somewhat anachronistic, too, in their failure to treat traditional grammar in terms of the aims it set itself. It must not be forgotten that the terms 'science' and 'scientific' (or their precursors) have been construed differently at different periods.

It should also be pointed out that what is generally referred to by means of the term 'traditional grammar' – i.e. Western linguistic theory going back through the Renaissance and the Middle Ages to Roman and, before that, Greek scholarship – is much richer and more variegated than is commonly realized. Furthermore, it was very often a misunderstood and distorted version of traditional grammar that was taught at school to generations of reluctant and uninterested pupils. In the last few years linguists have begun to take a more balanced view of the contribution that traditional grammar – we shall continue to use the term – has made to the development of their discipline. There is still much research to be done on such of the original sources as have survived from the earlier periods. But several histories of linguistics are now available which give a more satisfactory account of the foundations and development of traditional grammar than was readily available to Bloomfield's generation and that of his immediate successors.

Let us now return to the present state of linguistics. It is undoubtedly more empirical and objective, in its professed attitudes and assumptions at any rate, than traditional grammar. We shall look at some of these attitudes and assumptions in more detail in the following section. But is it as empirical and objective in practice as it claims to be? Here there is certainly room for doubt. There is also

room for dispute, at a more sophisticated level of discussion, as to the nature of scientific objectivity and the applicability to the study of language of what is commonly referred to as the scientific method.

Actually, it is no longer so widely accepted by scientists and philosophers of science that there is a single method of enquiry applicable in all branches of science. The very term itself, 'the scientific method', has a distinctly old-fashioned, even nineteenth-century, ring to it. It is sometimes suggested that scientific enquiry must necessarily proceed by means of inductive generalization on the basis of theoretically uncontrolled observation. Indeed, this is what many people hold to be implied by the term 'the scientific method'. But few scholars have ever worked in this way even in the natural sciences. Whatever scientific objectivity means it certainly does not imply that the scientist should refrain from theorizing and from the formulation of general hypotheses until he has amassed a sufficient amount of data. Scientific data, it has often been pointed out, are not given in experience, but taken from it. Observation implies selective attention. There is no such thing as theory-neutral and hypothesis-free observation and data collection. To use a currently fashionable phrase, originating with Popper, observation is, of necessity and from the outset, theory-laden.

The phrase is suggestive, but controversial. It was produced in reaction to the strongly empiricist view of science put forward by the logical positivists in the period preceding the Second World War. Students of linguistics should know a little about **empiricism** and **positivism**. Without such knowledge – though it need not be very detailed or profound – they cannot be expected to understand some of the theoretical and methodological issues that divide one school of linguistics from another at the present time. What follows is the necessary minimum of background information, presented, as far as this is possible, impartially and without commitment to either side in areas of known controversy. The controversies, it should be added, are relevant to the whole of science, not just to linguistics. But they have a special relevance for the linguist, in that recent developments in linguistics and the philosophy of language, associated with the work and ideas of Chomsky, have had a very considerable impact upon the more general discussion of empiricism and positivism both by philosophers and by psychologists and other social scientists (cf. 7.4).

Empiricism implies much more than the adoption of empirical methods of verification or confirmation: there is therefore a crucial distinction to be drawn between 'empiricist' and 'empirical'. The term 'empiricism' refers to the view that all knowledge comes from experience – the Greek word 'empeiria' means, roughly, "experience" – and, more particularly, from perception and sense-data. It is opposed, in a long-standing philosophical controversy to 'rationalism' – from the Latin 'ratio' meaning, in this context, "mind", "intellect" or "reason". The **rationalists** emphasize the role that the mind plays in the acquisition of knowledge. In particular, they hold that there are certain a priori concepts or propositions ('a priori' means, in its traditional interpretation, "known independently of experience") in terms of which the mind interprets the data of experience. We will come back to some more specific aspects of the controversy between empiricism and rationalism in our discussion of generativism (cf. 7.4).

No distinction need be drawn, for our purposes, between empiricism and positivism. The former has a longer history and is much broader in scope as a philosophical attitude. But the two are natural allies and are closely associated in all that concerns us here. Positivism rests upon the distinction between the so called positive data of experience and transcendental speculation of various kinds. It tends to be secular and anti-metaphysical in outlook and rejects any appeal to non-physical entities. It was the aim of the **logical positivists** of the Vienna Circle to produce a single system of unified science, in which the whole body of positive knowledge would be represented, ultimately, as a set of precisely formulated propositions.

Two more specific principles were central to this proposal. The first was the now famous **verification principle**: the principle that no statement was meaningful unless it could be verified by observation or standard scientific methods applied to the data provided by observation. The second was the principle of **reductionism**: the principle that, of the sciences, some were more basic than others – physics and chemistry being more basic than biology, biology being more basic than psychology and sociology, and so on – and that in

the grand synthesis of unified science the concepts and propositions of the less basic sciences were to be reduced to (i.e. reinterpreted in terms of) the concepts and propositions of the more basic sciences. Reductionism, unlike the verification principle, was characteristic of a much wider group of scholars than the members of the Vienna Circle forty years ago.

The verification principle has now been abandoned (though it has played its part in the formation of the truth-conditional theory of meaning: cf. 5.6) and the principle of reductionism is far less generally accepted by scientists and philosophers of science than it was when Bloomfield wrote his classic textbook of linguistics in 1933. I mention Bloomfield at this point because, not surprisingly, he was strongly committed to empiricism and positivism. This is made very clear in the second chapter of his textbook. He was, in fact, closely associated with the Unity of Science movement and subscribed fully to the principle of reductionism. It was Bloomfield more than anyone else who set for linguistics, especially in America, the ideal of being truly scientific. There is therefore a historically explicable legacy of empiricism and positivism in linguistics.

Reductionism, and more generally positivism, is no longer as attractive to most scientists as it once was. It is now widely accepted that there is no such thing as a single scientific method applicable in all fields; that diverse approaches are not only to be tolerated, as a matter of short-term necessity, in different disciplines, but may be justifiable, in the long term too, by virtue of irreducible differences of subject-matter. Ever since the seventeenth century – from the time of Descartes and Hobbes – there have been doubts expressed by some philosophers of science about the positivists' programme of accounting for mental processes in terms of the methods and concepts characteristic of the physical sciences. Much of twentieth-century psychology and sociology, like much of twentieth-century linguistics, has been positivistic in spirit. But in all three disciplines, and most obviously in linguistics, positivism has recently come under attack as being either unworkable or sterile.

In short, the question whether a discipline is or is not scientific can no longer be satisfactorily answered, if it ever could be, by making reference to the so called scientific method. Every well established science employs its own characteristic theoretical constructs and its own methods of obtaining and interpreting the data. What was referred to in the previous chapter as a fiction – the language-system – can be described, in scientifically more respectable terms, as a **theoretical construct**. Questions can be asked about the reality of such constructs, just as they can be asked about the reality of the theoretical constructs of physics or biochemistry. It is more profitable, however, to enquire of each theoretical construct that is postulated what explanatory purpose it is fulfilling with respect to the data.

All that has just been said about empiricism, positivism and the current status of the so called scientific method is intended to be more or less factual and uncontroversial. We now turn to points of controversy.

The first has to do with the implication of Popper's notion of theory-laden observation. This is controversial in the use of the term 'theory'. What Popper had in mind, and was attacking, was the sharp distinction drawn by the logical positivists between observation, itself held to be theoretically neutral, and theory-construction, held to be a matter of inductive generalization. He was undoubtedly correct in challenging the sharpness of the distinction and, more especially, the view that observation and data-collection can, and must, proceed in advance of the formulation of hypotheses. It is commonly the case that the selection of data is determined by some hypothesis that the scientist wishes to test; and it does not matter how this hypothesis has been arrived at. The fact that the positivists' notion of unselective observation and data-collection is invalid does not mean that there is no distinction at all to be drawn between pretheoretical and theoretical concepts. It is an abuse of the term 'theory' to subsume under it all the preconceptions and expectations with which one approaches what is observable and makes one's selection. We will draw upon the distinction between pretheoretical and theoretical concepts at several places in later chapters; and we will assume that observation, though necessarily selective, can be made subject to satisfactory methodological controls, in linguistics as in other empirically based sciences.

A second point of controversy – and one that is of particular importance in linguistics at the present time – has to do with the role of intuition and the methodological problems that arise in this

connection. The term 'intuition' carries with it certain rather unfortunate everyday associations. All that is meant when one refers to the native speaker's intuitions about his language is his spontaneous and untutored judgements about the acceptability or unacceptability of utterances, the equivalence or non-equivalence of utterances, and so on. There was a time when some linguists thought that it was in principle possible to escape from the necessity of asking native speakers to make such intuitive judgements about their language by simply collecting a large enough **corpus** of naturally occurring data and submitting it to an exhaustive and systematic analysis. Very few linguists take this view nowadays. It has become clear that many naturally occurring utterances are, for linguistically irrelevant reasons, unacceptable and also that no corpus of material, however large, will contain examples of every kind of acceptable utterance. But the linguist's appeal to intuitive evidence remains controversial. There are two aspects to the controversy.

The first relates to the question whether the intuitions that the linguist makes reference to are part of the native speaker's linguistic competence as such. If so, on Chomsky's definition of 'competence' and his formulation of the goals of linguistics, the intuitions themselves become part of what the description of any particular language must directly account for. Most linguists would probably not want to say that the description of a language must treat the native speaker's intuitions as data. We will come back to this question in our discussion of generativism (cf. 7.4).

The second part of the controversy has to do with the reliability of the native speaker's judgements, considered as reports or predictions of his own and others' language-behaviour. The general consensus of opinion among linguists would seem to be that such judgements are, in particular respects at least, highly unreliable. Not only do native speakers frequently disagree among themselves about what is acceptable, when there is no other reason to believe that they speak different dialects, but their judgements have been shown to vary over time. Moreover, it often happens that a native speaker will reject as unacceptable some utterance put to him by the descriptive linguist and then be heard, or hear himself, producing that very utterance in some natural context of use. As far as the linguist's introspections about his language are concerned, they are

at least as unreliable, though often for other reasons, as the intuitions of the layman. The linguist may be less concerned than the layman about conventional standards of correct usage (e.g. admitting quite freely that he normally says *It's me*, rather than *It is I*). But his judgements are more likely to be distorted by his awareness of the implications that they have for this or that theoretical issue. The linguist's introspections about his own language-behaviour and that of others may very well be theory-laden, even if direct observation of spontaneous conversation is not.

There are in fact quite serious methodological problems attaching to the collection of reliable data for a whole range of issues in theoretical linguistics. But they are no more serious than the methodological problems that confront those working in psychology, sociology or the social sciences in general. And in certain respects the linguist is better off than most social scientists, since it is fairly clear how much of what is observable is language-behaviour and how much is not. Furthermore, there are very considerable areas, in the description of any language, for which the reliability of the native speaker's intuitions, and even of the linguist's introspections, is not a serious problem. One must not make too much, therefore, of the methodological problems that arise in the course of linguistic research.

Reference was made in the previous paragraph to psychology, sociology and the other social sciences. Many linguists, perhaps the majority, would classify their discipline among the social sciences. But linguistics is not readily classifiable within any division of academic research which takes as fundamental either the distinction between science and arts or the tripartite distinction of the natural sciences, the social sciences and the humanities. The increasing use of such phrases as 'the life sciences', 'the behavioural sciences', 'the human sciences' or 'the earth sciences' indicates that many disciplines feel the need for strategic or tactical regroupings which have little regard to the conventional distinctions. Whether linguistics, as a university subject, is housed in one faculty rather than another is largely a matter of administrative convenience. Linguistics, as has been emphasized before, has natural links with a wide range of academic disciplines. To say that linguistics is a science is not to deny that, by virtue of its subject-matter, it is

closely related to such eminently humane disciplines as philosophy and literary criticism.

In the following sections, a number of principles will be mentioned and discussed which are generally taken for granted nowadays by linguists. For the most part, they can be seen as deriving from the scientific ideal of objectivity. Since modern linguistics, in asserting its objectivity, has so often proclaimed its distinctiveness in this respect from traditional grammar, they are frequently presented in contrast with the principles that determined the characteristic attitudes and assumptions of the traditional grammarian.

2.3 *Terminology and notation*

Every discipline has its own technical vocabulary. Linguistics is no exception. Most of the technical terms used by linguists arise in the course of their work and are easily understood by those who approach the subject sympathetically and without prejudice.

The objection is sometimes made that the terminology, or jargon, of linguistics is unnecessarily complex. Why is the linguist so prone to the creation of new terms? Why is he not content to talk about sounds, words and parts of speech, instead of inventing such new technical terms as 'phoneme', 'morpheme' and 'form class'? The answer is that most of the everyday terms that are used with reference to language – many of which, incidentally, originated as technical terms of traditional grammar – are imprecise or ambiguous. This is not to say that the linguist, like all specialists, may not be guilty at times of misplaced terminological pedantry. In principle, however, the specialized vocabulary of linguistics, if it is kept under control and properly used, serves to clarify, rather than to mystify. It eliminates a good deal of ambiguity and possible misunderstanding.

As with terminology, so with notation. We have to use language in order to talk both about language in general and about particular languages. In doing so, we need to be able to identify exactly what bits, parts or features of a language we are referring to. The use of special notational conventions makes this a lot easier. For example, we might need to distinguish between the meaning of a word and its form and between each of these and the word itself. There is

unfortunately no generally accepted set of notational conventions by means of which these and other distinctions can be drawn. In the present work, we shall make distinctive use of single quotation-marks, double quotation-marks and italics. For example, we shall distinguish between "table" and *table*, the former being the meaning and the latter the form (or one of the forms) of the word 'table'. By making use of these conventions, we can keep distinct, as we shall see later, at least two of the senses of the word 'word': in the first sense it refers to something that we should expect to be listed in the dictionary of the language; in the second sense it refers to what would be printed between spaces as a sequence of letters in a written text.

Other notational conventions will be introduced later, enabling us to distinguish spoken forms from written forms; and spoken forms of one kind (phonetic) from spoken forms of another kind (phonological); and so on. The general point being made here is that various notational conventions are, if not absolutely essential, at least very useful for the purpose of referring to language-data and making it clear what is being talked about. They have the further advantage that they force the linguist to think carefully about certain distinctions that might otherwise pass unnoticed. Very often, it proves difficult to be absolutely consistent in the application of some particular notational convention; and this difficulty then leads to a re-assessment of the theoretical distinction for which the notational convention was first established. This is one of the ways in which progress in any discipline is made.

2.4 *Linguistics is descriptive, not prescriptive*

The term 'descriptive' is here being employed in a different sense from the sense in which it opposes either 'general', on the one hand, or 'historical', on the other. The contrast that is relevant here is the one that holds between **describing** how things are and **prescribing** how things ought to be. An alternative to 'prescriptive', in the sense in which it contrasts with 'descriptive', is 'normative'. To say that linguistics is a descriptive (i.e. non-normative) science is to say that the linguist tries to discover and record the rules to which the members of a language-community actually conform and does not