7

Some modern schools and movements

7.1 *Historicism*

In this chapter, I will discuss a number of twentieth-century movements in linguistics which have shaped current attitudes and assumptions. The first of these, to which I will give the label **historicism**, is usually thought of as being characteristic of an earlier period of linguistic thought. It is of importance in the present connection in that it prepared the way for structuralism.

Writing in 1922, the great Danish linguist, Otto Jespersen, began one of the most interesting and controversial of his general books on language with the following sentence: "The distinctive feature of the science of language as conceived nowadays is its historical character." Jespersen was here expressing the same point of view as Hermann Paul had done in his *Prinzipien der Sprachgeschichte* (*Principles of Language History*), first published in 1880 and commonly described as the bible of Neogrammarian orthodoxy: the view that (to quote from the fifth edition of Paul's book, which appeared in 1920) "as soon as one goes beyond the mere statement of individual facts, as soon as one tried to grasp their interconnection [den Zusammenhang], to understand the phenomena [die Erscheinungen], one enters upon the domain of history, albeit perhaps unconsciously". Both Jespersen's book and the fifth edition of Paul's *Prinzipien*, it will be noted, were published several years after Saussure's posthumous *Cours de linguistique générale*, which inaugurated the movement now known as structuralism, and only a few years before the foundation of the Prague Linguistic Circle, in which structuralism was combined with functionalism and some of the ideas of present-day generativism had their origin. Structuralism, functionalism and generativism are the principal movements, or attitudes, with which we shall be concerned in this chapter.

It is interesting to observe, in passing, that Bloomfield, in *Language* (1935), whilst recognizing the great merits of Paul's *Prinzipien*, criticized it, not only for its historicism, but also for its mentalism and its substitution of what Bloomfield regarded as "philosophical and psychological pseudo-explanations" for inductive generalization on the basis of "descriptive language study". The wheel has now come full circle! For, as we shall see later, Bloomfieldian **descriptivism** (which may be regarded as a peculiarly American version of structuralism) provided the environment in which Chomskyan generativism was born and against which it reacted. It is impossible, in a book of this nature, to do justice to the complexity of the relations that hold among twentieth-century schools of linguistics and of the influence that one school has exerted upon another. What follows, in this chapter, is highly selective and, of necessity, involves a certain amount of personal interpretation. It is, of course, a truism that one cannot achieve a genuinely historical perspective in relation to contemporary ideas and attitudes. Even to try to do so may be itself a kind of historicism!

But what, precisely, is historicism – in the sense in which the term is being employed here? It is the view, expressed most forcefully by Paul in the passage from which just one sentence was quoted above, that linguistics, in so far as it is, or aspires to be, scientific, is necessarily historical in character. More particularly, the historicist takes the view that the only kind of explanation valid in linguistics is the kind of explanation which a historian might give: languages are as they are because, in the course of time, they have been subject to a variety of internal and external causal forces – such forces as were mentioned in the final section (6.5) of the chapter on historical linguistics. In taking this view, the great nineteenth-century linguists were reacting against the ideas of the philosophers of the French Enlightenment and their predecessors in a long tradition, which goes back, ultimately, to Plato, Aristotle and the Stoics, whose aim it was to deduce the universal properties of language from what were known, or assumed, to be universal properties of the human mind.

Historicism, in the sense in which the term is being used here, does not necessarily imply **evolutionism**: the view that there is directionality in the historical development of languages.

Evolutionism was, in fact, quite influential in linguistics in the late nineteenth century; and Jespersen, in the book referred to above, defends a particular version of it. Other versions have been put forward by idealists of various schools; and also, of course, within the framework of dialectical materialism, by Marxists. It is probably true to say, however, that, with a few notable exceptions, most linguists in the twentieth century have rejected evolutionism (cf. 1.4). Historicism, as we shall see in the following section, is one of the movements against which structuralism reacted and in relation to which it may be defined.

7.2 *Structuralism*

What is commonly referred to as **structuralism**, especially in Europe, is of multiple origin. It is both conventional and convenient to date its birth as an identifiable movement in linguistics from the publication of Saussure's *Cours de linguistique générale* in 1916. Many of the ideas that Saussure brought together in the lectures that he delivered at the University of Geneva between 1907 and 1911 (upon which the *Cours* is based) can be traced back into the nineteenth century and beyond.

Several of the constitutive distinctions of Saussurean structuralism have been introduced already (though not always in Saussurean terminology). It suffices to remind the reader of them and to show how they fit together. Since we have just been discussing historicism, it is natural to begin with the distinction between the synchronic and diachronic point of view in the study of languages (cf. 2.5).

As we have seen, the Neogrammarians took the view that linguistics, in so far as it is scientific and explanatory, must necessarily be historical. Against this view, Saussure argued that the synchronic description of particular languages could be equally scientific; and also that it could be explanatory. Synchronic explanation differs from diachronic, or historical, explanation in being **structural**, rather than causal: it gives a different kind of answer to the question, "Why are things as they are?" Instead of tracing the historical development of particular forms or meanings, it demonstrates how all the forms and meanings are interrelated at a particular point in time in a particular language-system. It is important to realize that, in opposing the Neogrammarian view, Saussure was not denying

the validity of historical explanation. He had made his reputation, as a very young man, with a brilliant reconstruction of the Proto-Indo-European vowel-system; and he never abandoned his interest in historical linguistics. What he was saying in his Geneva lectures on general linguistics was that the synchronic and the diachronic modes of explanation were complementary; and that the latter was logically dependent upon the former.

It is as if we were asked to explain why, let us say, a Rolls Royce car-engine of such-and-such a model and such-and-such a year was as it is. We could give a diachronic explanation in terms of the changes that had taken place, over the years, in the design of the carburettor, the crankshaft, etc.; and this would be a perfectly appropriate answer to the question. Alternatively, we could describe the role that each component plays in the synchronic system; and in doing so we should be explaining how the engine fits together and how it works. This would be a non-historical, structural (and functional) explanation of the facts. Since languages are not designed and, in Saussure's view at least, do not evolve through time according to some external or internal purpose, we must be careful not to press this analogy of the car-engine too hard (just as we must not press too hard Saussure's own analogy of the game of chess: cf. 2.5). Due allowance being made for the absence of a controlling designer and the difference between a machine and a social institution, we can say, quite legitimately, though metaphorically, that a structural description of a language tells us how all the components fit together.

There are certain aspects of Saussure's distinction between the diachronic and the synchronic point of view that are controversial, not to say paradoxical: in particular, his assertion that structuralism has no place in historical linguistics. This is paradoxical in view of the fact that Saussure's own early work on the Proto-Indo-European vowel-system in 1879 can be seen as foreshadowing what would be later described as internal reconstruction; and, as we have seen, this method of reconstruction was subsequently refined and adopted by scholars who called themselves structuralists and drew their inspiration, at least partly, from Saussure (cf. 6.5). However, it would seem that Saussure himself believed, rightly or wrongly, that all changes originated outside the language-system itself and

did not take account of what were later to be identified as structural pressures within the system operating as internal causal factors of language-change. No more need be said about this.

Little need be said either about Saussure's dichotomy between **langue** and **parole**: between the **language-system** and **language-behaviour** (cf. 1.3, 2.6). What must be emphasized, at this point, is the abstractness of Saussure's conception of the language-system. A language (langue), says Saussure, is a form, not a substance. The term 'form' is well established in this sense in philosophy and relates, on the one hand, to Wilhelm von Humboldt's notion of the inner form of a language (innere Sprachform) and, on the other, to the Russian formalists' notion of form as opposed to content in literary analysis. But it is potentially misleading (cf. 2.6). We are not doing violence to Saussure's thought if we say that a language is a **structure**, implying by the use of this term that it is independent of the physical substance, or medium, in which it is realized. 'Structure', in this sense, is more or less equivalent to 'system': a language is a two-level system of **syntagmatic** and **substitutional** (or **paradigmatic**) relations (cf. 3.6). It is this sense of 'structure' – the sense in which particular emphasis is given to the internal combinatorial and contrastive relations within a language-system – that makes the term 'structuralism' appropriate to several different twentieth-century schools of linguistics, which might differ one from another in various respects, including the abstractness of their conception of language-systems and their attitudes to the fiction of homogeneity (cf. 1.6). As we shall see later, generativism is also a particular version of structuralism in this very general sense.

But there are other features of Saussurean structuralism that are more distinctive of it. One is the assertion that "the one and only true object of linguistics is the language-system [la langue] envisaged in itself and for itself". Actually, this famous quotation from the last sentence of the *Cours* may not accurately represent Saussure's view, since the sentence appears to have been added by the editors without warrant in the lectures themselves. There is some doubt, too, as to what exactly is meant by "in itself and for itself" ("en elle-même et pour elle-même"). However, in the Saussurean tradition it has usually been taken to imply that a language-system is a structure that can be abstracted, not only from the historical

forces that have brought it into being, but also from the social matrix in which it operates and the psychological process by which it is acquired and made available for use in language-behaviour. Thus interpreted, the Saussurean slogan, whether it originated with the master himself or not, has often been used to justify the principle of the **autonomy** of linguistics (i.e. its independence of other disciplines) and a methodological distinction of the kind that was drawn in an earlier chapter between **microlinguistics** and **macrolinguistics** (cf. 2.1). It has also been identified, at times, with the somewhat different, but no less characteristically structuralist, slogan that every language-system is unique and should be described on its own terms. We shall come back to this point (cf. 10.2).

There might seem to be some conflict between Saussure's view (if indeed it was his view) that the language-system should be studied in abstraction from the society in which it operates and the view (which he certainly did hold) that languages are social facts. The conflict is only apparent. For even if they are social facts – in the sense in which the term 'social fact' was employed by the great French sociologist, Émile Durkheim (1858–1917), Saussure's contemporary – they have their own unique constitutive principles. As we have seen, a structural analysis of a language-system is not to be confused with a causal account of how the system came to be as it is. In saying that language-systems are social facts, Saussure was asserting several things: that they are different from, though no less real than, material objects; that they are external to the individual and make him subject to their constraining force; that they are systems of values maintained by social convention.

More particularly, he took the view that they are semiotic systems in which that which is signified (**le signifié**) is arbitrarily associated with that which signifies (**le signifiant**). This is Saussure's famous principle of the arbitrariness of the linguistic sign (l'arbitraire du signe) – a principle which was discussed, independently of the role it fulfils in Saussurean structuralism, in an earlier chapter (cf. 1.5). The important point to note here, and it is essential for the understanding of Saussurean structuralism, is that the sign is not a meaningful form: it is a composite entity which results from the imposition of structure on two kinds of substance by the combinatorial and contrastive relations of the language-system. Meanings

cannot exist independently of the forms with which they are associated; and vice versa. We must not think of a language as a nomenclature, says Saussure: that is, as a set of names, or labels, for pre-existing concepts, or meanings. The meaning of a word – or rather, that aspect of its meaning which Saussure called the 'signifié' (that aspect of meaning which is wholly internal to the language-system; its sense, rather than its reference or denotation: cf. 5.3) – is the product of the semantic relations which hold between that word and others in the same language-system. To invoke the traditional philosophical distinction between essence and existence, it derives not only its essence (what it is), but also its existence (the fact that it is) from the relational structure that is imposed by the language-system upon the otherwise unstructured substance of thought. Similarly, what Saussure calls the 'signifiant' of a word – its phonological shape, as it were – results ultimately from the network of contrasts and equivalences that a particular language-system imposes upon the continuum of sound.

We need proceed no further with our investigation of Saussurean structuralism as such. What has just been said is no doubt difficult to comprehend when it is formulated in such general terms, as it has been here. It should be comprehensible, however, as far as the imposition of structure on the substance of sound is concerned, in the light of the distinction drawn earlier between phonetics and phonology (cf. 3.5). Whether we can legitimately talk of the imposition of structure upon the substance of thought in the same sort of way is, to say the least, problematical.

The Saussurean view of the uniqueness of language-systems and of the relation between structure and substance leads naturally, though by no means inevitably, to the thesis of **linguistic relativity**: the thesis that there are no universal properties of human languages (other than such very general semiotic properties as arbitrariness, productivity, duality and discreteness: cf. 1.5); the thesis that every language is, as it were, a law unto itself. Any movement or attitude in linguistics which accepts this point of view may be referred to conveniently, as **relativism** and contrasted with **universalism**. Relativism, in a stronger or weaker form, has been associated with most kinds of twentieth-century structuralism. In part, it can be seen as a methodologically healthy reaction to the tendency to describe the

indigenous languages of the New World in terms of the categories of Western traditional grammar. But relativism has also been defended by its proponents, in association with structuralism, in the more controversial context of the discussion of such traditional philosophical issues as the relation between language and mind and the role played by language in the acquisition and representation of knowledge (cf. 10.2). Both philosophical and methodological relativism have been rejected, by Chomsky and his followers, as we shall see, in their formulation of the principles of generativism (cf. 7.4). What needs to be emphasized here is the fact that, although there is a strong historical connection between structuralism and relativism, there have been many structuralists – notably Roman Jakobson and other members of the Prague School (cf. 7.3) – who never accepted the more extreme forms of relativism. This holds not only within linguistics, but also in other disciplines, such as social anthropology, in which structuralism has been an important twentieth-century influence.

We cannot go into the relation between structural linguistics and structuralism in other fields of investigation. It must be appreciated, however, that structuralism is very much an interdisciplinary movement. Saussurean structuralism, in particular, has been a powerful force in the development of a characteristically French approach to semiotics (or semiology) and its application to literary criticism, on the one hand, and to the analysis of society and culture, on the other. Taking 'structuralism' in a more general sense, we can say, as the philosopher Ernst Cassirer did in 1945: "Structuralism is no isolated phenomenon; it is, rather, the expression of a general tendency of thought that, in these last decades, has become more and more prominent in almost all fields of scientific research." What characterizes structuralism, in this more general sense, is a greater concern with the relations which hold among entities than with the entities themselves. There is a natural affinity, in this respect, between structuralism and mathematics; and one of the criticisms most commonly made of structuralism is that it exaggerates the orderliness, elegance and generality of the relational patterns in the data that it investigates.

7.3 *Functionalism*

The terms 'functionalism' and 'structuralism' are often employed in anthropology and sociology to refer to contrasting theories or methods of analysis. In linguistics, however, **functionalism** is best seen as a particular movement within structuralism. It is characterized by the belief that the phonological, grammatical and semantic structure of languages is determined by the functions that they have to perform in the societies in which they operate. The best-known representatives of functionalism, in this sense of the term, are the members of the **Prague School**, which had its origin in the Prague Linguistic Circle, founded in 1926 and particularly influential in European linguistics in the period preceding the Second World War. Not all the members of the Prague Linguistic Circle, incidentally, were based in Prague; nor were they all Czech. Two of its most influential members Roman Jakobson and Nikolaj Trubetzkoy, were émigré Russians, the former teaching in Brno and the latter in Vienna. From 1928, when the Prague School manifesto (as one might call it) was presented to the First International Congress of Linguists held at The Hague, scholars from many other European countries began to associate themselves, more or less closely, with the movement. The Prague School has always acknowledged its debt to Saussurean structuralism, although it has tended to reject Saussure's point of view on certain issues, especially on the sharpness of the distinction between synchronic and diachronic linguistics and on the homogeneity of the language-system.

It was in phonology that the Prague School first made its impact. In fact, the notion of functional contrast, which was invoked above in drawing the distinction between phonetics and phonology, is essentially that of Trubetzkoy, whose concept of **distinctive features**, as modified by Jakobson and later by Halle (working in collaboration with Chomsky), has been incorporated within the theory of generative phonology (cf. 3.5). But the **distinctive function** of phonetic features is only one kind of linguistically relevant function recognized by Trubetzkoy and his followers. Also to be noted are **demarcative function**, on the one hand, and **expressive function**, on the other.

Many of the suprasegmental features referred to above – stress, tone, length, etc. (cf. 3.5) – have a demarcative, rather than a distinctive, function in particular language-systems: they are what Trubetzkoy called boundary-signals (Grenzsignale). They do not serve to distinguish one form from another on the substitutional (or, in Saussurean terms, paradigmatic) dimension of contrast; they reinforce the phonological cohesion of forms and help to identify them syntagmatically as units by marking the boundary between one form and another in the chain of speech. For example, in many languages, including English, there is no more than one primary stress associated with each word-form. Since the position of the primary stress on English word-forms is only partly predictable, its association with one syllable rather than another does not identify word-boundaries quite so clearly as it does in languages (such as Polish, Czech or Finnish) with so-called fixed stress. Nevertheless, word-stress does have an important demarcative function in English. So too does the occurrence of particular sequences of phonemes. For example, /h/ rarely occurs in English (otherwise than in proper names) except at the beginning of a morpheme, and /ŋ/ never occurs without a following consonant except at the end. The occurrence of either of these phonemes can serve therefore to indicate the position of a morpheme-boundary. It is not just prosodic features that have demarcative function in a language-system; and this is something that phonologists have often failed to appreciate. The fact that not all sequences of phonemes are possible word-forms of a language is of importance for the identification of those forms that do occur in utterances.

By the expressive function of a phonological feature is meant its indication of the speaker's feelings or attitude. For example, word-stress is not distinctive in French; and it does not play a demarcative role, as it does in many languages. There is, however, a particular kind of emphatic pronunciation of the beginning of the word which has an acknowledged expressive function. It is probably true to say that every language puts a rich set of phonological resources at the disposal of its users for the expression of feeling. Unless the notion of linguistic meaning is restricted to that which is relevant to the making of true and false statements, it is surely right to treat the expressive function of language on equal terms with its descriptive function (cf. 5.1).

It is not only in phonology that members of the Prague School demonstrated their functionalism, and more especially their readiness to take full account of the expressive and interpersonal functions of language. From the outset, they have opposed, not only the historicism and positivism of the Neogrammarian approach to language, but also the intellectualism of the pre-nineteenth-century Western philosophical tradition, according to which language is the externalization or expression of thought (and 'thought' is understood to mean propositional thought). Intellectualism, as we shall see, is one of the components of that complex and heterogeneous movement in modern linguistics to which we are giving the label 'generativism' (cf. 7.4). There is no logical contradiction between functionalism and intellectualism. After all, one might as an intellectualist take the view that the sole or primary function of language is the expression of propositional thought and yet as a functionalist maintain that the structure of language-systems is determined by their teleological adaptation to this their sole or primary function. In practice, however, not only Prague School linguists, but also others who have called themselves functionalists, have tended to emphasize the **multifunctionality** of language and the importance of its expressive, social and conative functions, in contrast with or in addition to its descriptive function.

One of the enduring interests of the Prague School, as far as the grammatical structure of languages is concerned, has been **functional sentence perspective** (to use the term which emphasizes the functionalist motivation of research on this topic). It was pointed out in an earlier chapter that

(1) This morning he got up late

and

(2) He got up late this morning

might be regarded as different versions of the same sentence or, alternatively, as different sentences (cf. 4.2). Whichever point of view we adopt, two things are clear: first, that (1) and (2) are truth-conditionally equivalent and therefore, on a narrow interpretation of 'meaning', can be said to have the same meaning (cf. 5.1); second, that the contexts in which (1) would be uttered differ

systematically from the contexts in which (2) would be uttered. In so far as word-order is held to be a matter of syntax, we can say that, in some languages at least, the syntactic structure of utterances (or of sentences, under a definition of 'sentence' which would make (1) and (2) different sentences) is determined by the communicative setting of the utterance, and in particular by what is taken for granted, or **given** as background information and what is presented against this background as being **new** to the hearer and thus genuinely informative. Considerations of this kind are involved in the definition of what Prague School linguists have called functional sentence perspective. There are differences of terminology and of interpretation which make it difficult to compare the various functionalist treatments of the communicative settings of utterances within a common theoretical framework. What they all share is the conviction that the structure of utterances is determined by the use to which they are put and the communicative context in which they occur.

In general, we can say that functionalism in linguistics has tended to emphasize the instrumental character of language. There is a natural affinity, therefore, between the functionalist viewpoint and that of the sociolinguist or of such philosophers of language as have subsumed language-behaviour under the more embracing notion of social interaction. Functionalism is, in this respect and in others, firmly opposed to generativism (cf. 7.4).

But is it true, as the functionalist maintains, that the structure of natural languages is determined by the several interdependent semiotic functions – expressive, social and descriptive – that they fulfil? If it were, their structure would be in this respect non-arbitrary; and in so far as different language-systems fulfilled the same semiotic functions, they could be expected to be similar, if not identical, in structure. Now it is possible that linguists have at times exaggerated the arbitrariness of grammatical processes and have failed to give due weight to functional considerations in the description of particular phenomena. It is also possible that functional explanations will ultimately be found for many facts which at present seem to be quite arbitrary: for example, the fact that the adjective regularly precedes the noun in noun phrases in English, but usually follows its noun in French; the fact that the verb is put at

the end of subordinate clauses in German; and so on. In certain instances it has been noted that the presence of one such apparently arbitrary property in a language tends to imply the presence or absence of another apparently arbitrary property. But so far at least **implicational universals** of this kind have not been satisfactorily explained in functional terms. It would seem that there is indeed a good deal of arbitrariness in the non-verbal components of language-systems, and more particularly in their grammatical structure (cf. 7.4); and that functionalism, as defined above, is untenable. It does not follow, of course, that weaker versions of functionalism, according to which the structure of language-systems is partly, though not wholly, determined by function are equally untenable. And linguists who call themselves functionalists tend to adopt one of the weaker versions.

7.4 *Generativism*

The term 'generativism' is being used here to refer to the theory of language that has been developed, over the last twenty years or so, by Chomsky and his followers. Generativism, in this sense, has been enormously influential, not only in linguistics, but also in philosophy, psychology and other disciplines concerned with language.

Generativism carries with it a commitment to the usefulness and feasibility of describing human languages by means of generative grammars of one type or another. But there is much more to generativism than this. As has already been pointed out, although a commitment to the tenets of generativism necessarily implies an interest in generative grammar, the converse does not hold true (cf. 4.6). Indeed, relatively few of the linguists who were impressed by the technical advantages and heuristic value of Chomsky's system of transformational-generative grammar when he first put this forward in the late 1950s have ever explicitly associated themselves with the body of assumptions and doctrines that is now identifiable as generativism. It is also worth emphasizing that these assumptions and doctrines are, for the most part, logically unconnected. Some of them, as I shall indicate below, are more widely accepted than others. However, the influence of Chomskyan generativism upon all modern linguistic theory has been so deep and so pervasive that

even those who reject this or that aspect of it tend to do so in terms that Chomsky has made available to them.

Generativism is usually presented as having developed out of, and in reaction to, the previously dominant school of post-Bloomfieldian American descriptivism: a particular version of structuralism. Up to a point, it is historically justifiable to see the origin of generativism within linguistics in this light. But, as Chomsky himself came to realize later, there are many respects in which generativism constitutes a return to older and more traditional views about language. There are others in which generativism simply takes over, without due criticism, features of post-Bloomfieldian structuralism which have never found much favour in other schools of linguistics. It is impossible to deal satisfactorily with the historical connections between Chomskyan generativism and the views of his predecessors in this book; and, for present purposes, it is unnecessary to attempt to do so. I will merely pick out, and comment briefly upon, the most important of the recognizably Chomskyan components of present-day generativism.

As was noted in Chapter 1, language-systems are productive, in the sense that they allow for the construction and comprehension of indefinitely many utterances that have never previously occurred in the experience of any of their users (cf. 1.5). In fact, from the assumption that human languages have the property of **recursiveness** – and this appears to be a valid assumption (cf. 4.5) – it follows that the set of potential utterances in any given language is, quite literally, infinite in number. Chomsky drew attention to this fact, in his earliest work, in his criticism of the widely held view that children learn their native language by reproducing, in whole or in part, the utterances of adult speakers. Obviously, if children, from a fairly early age, are able to produce novel utterances which a competent speaker of the language will recognize as grammatically well-formed, there must be something other than imitation involved. They must have inferred, learned, or otherwise acquired the grammatical rules by virtue of which the utterances that they produce are judged to be well-formed. We shall be looking further at the question of language-acquisition in a later chapter (cf. 8.4). Here, it is sufficient to note that, whether Chomsky is right or wrong about other issues that he has raised in this connection, there can be

no doubt that children do not learn language-utterances by rote and then simply reproduce them in response to environmental stimuli.

I have deliberately used the words 'stimulus' and 'response' at this point. They are key-terms of the school of psychology known as **behaviourism**, which was very influential in America before and after the Second World War. According to the behaviourists everything that is commonly described as being the product of the human mind – including language – can be satisfactorily accounted for in terms of the reinforcement and conditioning of purely physiological reflexes: ultimately, in terms of habits, or **stimulus–response** patterns, built up by the same kind of conditioning as that which enables experimental psychologists to train laboratory rats to run through a maze. Since Bloomfield himself had come to accept the principles of behaviourism and had explicitly advocated them as a basis for the scientific study of language in his classic textbook (1935), these principles were widely accepted in America, not only by psychologists, but also by linguists, throughout the so-called post-Bloomfieldian period.

Chomsky has done more than anyone else to demonstrate the sterility of the behaviourists' theory of language. He has pointed out that much of the technical vocabulary of behaviourism ('stimulus', 'response', 'conditioning', 'reinforcement', etc.), if taken seriously, cannot be shown to have any relevance to the acquisition and the use of human language. He has shown that the behaviourists' refusal to countenance the existence of anything other than observable physical objects and processes is based on an outdated pseudo-scientific prejudice. He has asserted – and, as far as the evidence goes, correctly – that language is **free from stimulus-control**. This is what he means when he talks of **creativity**: the utterance that someone produces on any particular occasion is, in principle, unpredictable and cannot be properly described, in the technical sense of these terms, as a response to some identifiable linguistic or non-linguistic stimulus.

Creativity is, in Chomsky's view, a peculiarly human attribute, which distinguishes men from machines and, as far as we know, from other animals. But it is **rule-governed** creativity. And this is where generative grammar comes into its own. The utterances that we produce have a certain grammatical structure: they conform to

identifiable rules of well-formedness. To the extent that we succeed in specifying these rules of well-formedness, or grammaticality, we shall have provided a scientifically satisfying account of that property of language – its productivity (cf. 1.5) – which makes possible the exercise of creativity. Productivity, it should be noted, is not to be identified with creativity: but there is an intrinsic connection between them. Our creativity in the use of language – our freedom from stimulus-control – manifests itself within the limits set by the productivity of the language-system. Furthermore, it is Chomsky's view – and this is a very central component in Chomskyan generativism – that the rules which determine the productivity of human languages have the formal properties that they do have by virtue of the structure of the human mind.

This brings us to **mentalism**. Not only the behaviourists, but psychologists and philosophers of many different persuasions, have rejected the distinction that is commonly drawn between body and mind. Chomsky takes the view that it is a valid distinction (although he would not necessarily accept the terms in which it has been formulated in the past). And it is his contention that linguistics has an important role to play in the investigation of the nature of the mind. We will return to this question presently (cf. 8.2). Meanwhile, it is worth noting that there is far less difference between Bloomfield's and Chomsky's views of the nature and scope of linguistics than one might expect. Bloomfield's commitment to behaviourism had little practical effect upon the techniques of linguistic description that he and his followers developed; and Chomsky's mentalism, as we shall see, is not of the kind that (to quote Bloomfield) "supposes that the variability of human conduct is due to the interference of some non-physical factor". Chomsky's mentalism transcends the more old-fashioned opposition between the physical and the non-physical that Bloomfield here invokes. Chomsky, no less than Bloomfield did, wishes to study language within the framework of concepts and assumptions provided by the natural sciences.

Nevertheless, there are significant differences between Chomskyan generativism and both Bloomfieldian and post-Bloomfieldian structuralism. One of these has to do with their attitudes towards **linguistic universals**. Bloomfield and his followers emphasized the

structural diversity of languages (as did the majority of post-Saussurean structuralists: cf. 7.2). Generativists, in contrast, are more interested in what languages have in common. In this respect, generativism represents a return to the older tradition of universal grammar – as exemplified, most notably, by the Port-Royal grammar of 1660 and a large number of eighteenth-century treatises on language – which both Bloomfield and Saussure condemned as speculative and unscientific. But Chomsky's position is interestingly different from that of his predecessors in the same tradition. Whereas they tended to deduce the essential properties of language from what they held to be the universally valid categories of logic or reality, Chomsky is far more impressed with such universal properties of language as cannot be so accounted for: in short, with what is universal, but **arbitrary** (cf. 1.5). Another difference is that he attaches more importance to the formal properties of languages and to the nature of the rules that their description requires than he does to the relations that hold between language and the world.

The reason for this change of emphasis is that Chomsky is looking for evidence to support his view that the human language-faculty is **innate** and **species-specific**: i.e. genetically transmitted and unique to the species. Any universal property of language that can be accounted for in terms of its functional utility or its reflection of the structure of the physical world or of the categories of logic can be discounted from this point of view. According to Chomsky, there are several complex formal properties which are found in all languages, and yet are arbitrary in the sense that they serve no known purpose and cannot be deduced from anything else that we know of human beings or of the world in which they live.

Whether there are indeed such universal formal properties in language, of the kind that the generativists have postulated, is as yet uncertain. But the search for them and the attempt to construct a general theory of language-structure within which they would find their place has been responsible for some of the most interesting work in both theoretical and descriptive linguistics in recent years. And many of the results that have been obtained are independently valuable, regardless of whether they lend support to Chomsky's hypothesis about the innateness and species-specificity of the language-faculty or not.

A further difference between generativism and Bloomfieldian and post-Bloomfieldian structuralism – though in this respect generativism is closer to Saussurean structuralism – relates to the distinction that Chomsky draws between **competence** and **performance**. A speaker's linguistic competence is that part of his knowledge – his knowledge of the language-system as such – by virtue of which he is able to produce the indefinitely large set of sentences that constitutes his language (in Chomsky's definition of a language as a set of sentences: cf. 2.6). Performance, on the other hand, is language-behaviour; and this is said to be determined, not only by the speaker's linguistic competence, but also by a variety of non-linguistic factors including, on the one hand, social conventions, beliefs about the world, the speaker's emotional attitudes towards what he is saying, his assumption about his interlocutor's attitudes, etc. and, on the other hand, the operation of the psychological and physiological mechanisms involved in the production of utterances.

The competence–performance distinction, thus drawn, is at the very heart of generativism. As presented in recent years, it relates to mentalism and universalism in the following way. A speaker's linguistic competence is a set of rules which he has constructed in his mind by virtue of his application of his innate capacity for language-acquisition to the language-data that he has heard around him in childhood. The grammar that the linguist constructs for the language-system in question can be seen as a model of the native speaker's competence. To the extent that it successfully models such properties of linguistic competence as the ability to produce and understand an indefinitely large number of sentences, it will serve as a model of one of the faculties, or organs, of the mind. To the extent that the theory of generative grammar can identify, and construct a model for, that part of linguistic competence which, being universal (and arbitrary) is held to be innate, it can be regarded as falling within the province of cognitive psychology and as making its own unique contribution to the study of man. It is, of course, this aspect of generativism, with its reinterpretation and revitalization of the traditional notion of universal grammar, which has excited the attention of psychologists and philosophers.

The distinction between competence and performance, as drawn by Chomsky, is similar to Saussure's distinction between langue and

parole. Both of them rest upon the feasibility of separating what is linguistic from what is non-linguistic; and they both subscribe to the fiction of the homogeneity of the language-system (cf. 1.6). As for the differences between the two distinctions, it is arguable that Saussure's has less of a psychological slant to it than Chomsky's: though Saussure himself is far from clear on this point, many of his followers have taken the language-system to be something quite abstract and other than even the idealized speaker's knowledge of it. A more clearly identifiable difference has to do with the role that is assigned to the rules of syntax. Saussure gives the impression that the sentences of a language are instances of **parole**; both he and his followers talk of a **langue** as a system of relations and say little or nothing about the rules that are required to generate sentences. Chomsky, on the other hand, has insisted from the outset that the capacity to produce and understand syntactically well-formed sentences is a central part – indeed, the central part – of a speaker's linquistic competence. In this respect, Chomskyan generativism undoubtedly constitutes an advance upon Saussurean structuralism.

Chomsky's competence–performance distinction has come in for a lot of criticism. Some of this has to do with the validity of what I have called the fiction of homogeneity: provided that 'validity' is interpreted in terms of fruitfulness for the purpose of describing and comparing languages, this line of criticism may be discounted. With the same proviso we may also discount the criticism that Chomsky draws too sharp a distinction between linguistic competence and the other kinds of knowledge and cognitive ability that are involved in the use of language as far as grammatical and phonological structure is concerned: semantic analysis is more problematical (cf. 5.6, 8.6). At the same time, it must be recognized that the terms 'competence' and 'performance' are inappropriate and misleading as far as the distinction between what is linguistic and what is non-linguistic is concerned. Granted that language-behaviour, in so far as it is systematic, presupposes various kinds of cognitive ability, or competence, and that one kind is the speaker's knowledge of the rules and vocabulary of the language-system, it is confusing, to say the least, to restrict the term 'competence', as Chomskyan generativists do, to what is assumed to pertain to the language-system,

lumping everything else under the catch-all term 'performance'. It would have been preferable to talk about linguistic and non-linguistic competence, on the one hand, and about performance, or actual language-behaviour, on the other. And it is worth noting that in his most recent work Chomsky himself distinguishes grammatical competence from what he calls pragmatic competence.

By far the most controversial aspects of generativism are its association with mentalism and its reassertion of the traditional philosophical doctrine of innate knowledge (cf. 8.2). As far as the more narrowly linguistic part of generativism is concerned (the microlinguistic part: cf. 2.1), there is also much that is controversial. But most of this it shares with post-Bloomfieldian structuralism, out of which it emerged, or with other schools of linguistics, including Saussurean structuralism and the Prague School, with which, in one respect or another, it has now associated itself. For example, it continues the post-Bloomfieldian tradition in syntax, by making the morpheme the basic unit of analysis and by attaching more importance to constituency-relations than it does to dependency (cf. 4.4). Its commitment to the autonomy of syntax (i.e. to the view that the syntactic structure of languages can be described without recourse to semantic considerations) may also be attributed to its post-Bloomfieldian heritage, though many other linguists, outside the post-Bloomfieldian tradition, have taken the same view. As we have seen, Chomskyan generativism is closer to Saussurean, and post-Saussurean, structuralism on the necessity of drawing a distinction between the language-system and the use of that system in particular contexts of utterance. It is also closer to Saussurean structuralism and some of its European developments in its attitude towards semantics. Finally, it has drawn heavily upon Prague School notions in phonology, without however accepting the principles of functionalism. Generativism is all too often presented as an integrated whole in which the technical details of formalization are on a par with a number of logically unconnected ideas about language and the philosophy of science. These need to be disentangled and evaluated on their merits.

FURTHER READING

On the recent history of linguistics: Ivić (1965); Leroy (1963); Malmberg