1 Introduction

Relations

What is syntax? When Wackernagel asked this question in the 1920s there were already several answers; and his brief overview (1926, 1: 1–4) could usefully be extended, to include ones given since then. But a still more elementary question is why syntax is a field of study at all. The answer is that there are units such as sentences, within which smaller units do not combine randomly. Therefore the ways in which they do combine must be investigated and made clear.

In one view, which dates from the 1940s, what we have to study is the DISTRIBUTION of these smaller units. By that was meant the class of 'contexts', as defined by the remainder of a sentence, in which they can be identified; and, where different units have a similar distribution, it is on that basis that they belong to the same SYNTACTIC CATEGORY. *Jane*, for example, has a distribution similar to that of *Mary*. Both can be found, in writing, as the first word of sentences such as *Jane is coming*, *Mary is coming*; in the middle of such sentences as *I saw Jane in town*, *I saw Mary in town*; and so on. In that light, they belong together in a category of, for the sake of a label, 'proper nouns' or 'names'. This view has led, among other things, to a distinction between 'SYNTAX', seen as an account of distributions, and 'SEMANTICS', as a separate account of meanings. It is a matter of syntax, in this view, that *Jane* has the distribution it has. It is a matter of semantics, not of syntax, that such a word is used to refer to individuals, typically both human and female.

In another view, whose origins are much older, syntax is concerned precisely with the meanings of such categories. Words like *Jane* or *Mary* have in part a similar meaning, in that again they are names. Such labels, now, will not be arbitrary. A word like *came*, in *Jane came*, shares in turn some aspects of its meaning with, for example, *vanished* in *Mary vanished*. Both are among the units traditionally called 'verbs', typically used in reference to actions,

processes or states. Names, then, of individuals can combine with words denoting things they do, like coming, things that might be seen as happening to them, such as falling ill, and so on. This does not mean merely that syntactic patterns, as concerned with distribution, are explained in some way by 'semantics'. Even in a case like this, the 'explanation' would not be complete. The meanings of both words and categories are instead seen as belonging, in part, to syntax.

This second view was dominant, in one form or another, when, for example, Bloomfield wrote on language in the 1930s. 'Grammar', in which syntax is included, he defined accordingly as one branch of semantics, alongside the lexicon (Bloomfield 1935 [1933]: 138). Each member of a category, or 'form-class', 'contains' as one element a 'class-meaning' (146). 'Grammatical forms' are defined as 'conventional grammatical arrangements', with a meaning (166), and so on. The opposite view, which nevertheless has roots in Bloomfield's own work, was taken to an extreme by Chomsky in the 1950s. In a chapter of his first book headed 'Syntax and semantics', he suggested that a theory of language had two 'subparts'. One would be a theory of grammar, or 'linguistic form', in abstraction from meaning. The other was 'a theory of the use of language'; and it was in this light that one could go on to study 'correspondences', which of course existed, 'between formal and semantic features' (Chomsky 1957: 102). Where many linguists doubted whether one could 'construct a grammar with no appeal to meaning', Chomsky cast doubt on the implication that one could construct one 'with appeal to meaning' (93). The book which I am citing is now almost fifty years old and, with Bloomfield's, is part of the history of the subject (see, for the chain of thinking that connects them, Matthews 1993: 111-41). But for many linguists syntax and semantics still form separate components of an overall account of language.

That view has in turn provoked a range of contrary reactions; and, more generally, the question with which Wackernagel started eighty years ago, and which Ries addressed explicitly three decades earlier (1894), has no one answer. What is common, however, to all treatments is that syntax is there to be studied. There are larger units, that is, in which smaller units combine in specific ways. It follows that, however we conceive them or describe them, we are dealing with RELATIONS among units.

What kinds of relation there are is our main problem. A few have names that go back centuries and, in practice, are not controversial. Few linguists, for example, will have difficulty in agreeing that a relation between *Jack* and *Jill*, in *Jack and Jill fell down the hill* is in part like that of *fell* and *broke*

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his leg in Jack fell and broke his leg. Both are of a kind traditionally called 'COORDINATION'; words such as and, which here 'joins' units in coordination, have since antiquity been 'coordinating conjunctions'. But unanimity of this sort, in both terminology and substance, will often be sought in vain. Take, for example, the relation often called 'subordination'. This is another term whose roots lie in antiquity, and is applied uncontroversially in English to, for example, a 'SUBORDINATE CLAUSE' such as *that Mary is coming*. Such clauses are ordered 'under' (Latin *sub*), and are generally seen as part of, a 'main clause': thus, for example, in *They said* [*that Mary is coming*].

Alternatively, it is an 'embedded clause' within a 'matrix clause', or a 'dependent clause', as opposed to an 'independent'. But what other units stand in similar relations? To be 'ordered under' is in one sense to be part of a larger unit: that, in particular, is what is meant by saying that such clauses are 'embedded'. But in another sense, the clause is 'ordered under', in the same example, *said*. This is a word which takes or requires a unit of this kind; and the term 'subordination' has again been used of the relation between them. Alternatively, it is in that sense that the clause might be described as 'dependent'. What exactly is meant is thus already partly unclear. But 'clauses' are not the only kind of syntactic unit. There are plainly others; and those called 'subordinate' or 'dependent' vary strikingly as different linguists have perceived them.

The reasons lie in part in the assumptions with which they have approached the subject: about language in general; about their aims in studying a specific language; about the forms of argument by which analyses are established. In one view a description must again be justified by evidence of distributions, or by 'syntactic arguments' as distinct from semantic. Alternatively, 'semantic arguments' are seen as subsidiary. For others, a distinction between 'syntactic' and 'semantic' will again be meaningless. But another problem is the sheer variety of what Bloomfield, in a passage cited earlier, called 'conventional grammatical arrangements'. These are, in particular, what are traditionally called 'CONSTRUCTIONS'; and in the history of the subject, there has been no single way of trying to impose an order on them.

The term 'construction' was in origin the equivalent of the Ancient Greek 'súntaxis', meaning literally 'arrangement together'. The great work of the Greek grammarian Apollonius Dyscolus, *Perì Suntáxeōs* 'On Syntax', was thus imitated in the grammar of Latin by his admirer, Priscian, in a book entitled *De constructione* (Apollonius, ed. and trans. Lallot 1997; Priscian, *Institutiones* 18, ed. Hertz 1855–59, 2: 210ff.). The sense is, in the words of Johnson's dictionary twelve centuries later, 'the putting of words, duly

chosen, together in such a manner as is proper to convey a complete sense' (cited Murray ed. 1888–1933: *s.v.* section 5). But the Latin term has also been used, since the middle ages, of specific structures in which members of specific categories combine in specific patterns. The 'CONSTRUCTION OF', for example, *Mary vanished* is, as grammars will describe it, of a verb (*vanished*) with a subject (*Mary*). Alternatively, it is one in which a subject combines with a predicate. As such it is distinct from other constructions. Thus the construction of *helped Mary*, in a sentence such as *They helped Mary*, is instead one where, again as grammars will describe it, a verb combines with an object. The aim of 'syntax', as the study of how words are 'chosen' and 'put together', in a 'proper manner', is to analyse the different constructions of a language and show how they work together to 'convey the sense' of sentences as wholes.

This way of talking will stick in the throat of many linguists; and, the more they may insist that syntax must be separated from semantics, the more constructions in this sense reduce to simple relations among pairs of categories. But the term can bear a weaker definition which, though far less interesting, is at least less controversial: as a specific unit, like *helped Mary*, which subsumes two, or perhaps more, smaller units. This is how it is used by, among others, the authors of the recent *Cambridge Grammar of the English Language* (Huddleston and Pullum 2002: 23). Our problems, then, concern the kinds of relation in which parts, or 'members', of constructions can stand.

Let us begin with the traditional notion of a subject. In Mary vanished the members of the construction are, on the one hand, Mary and, on the other, vanished. One kind of relation is accordingly between these: between two parts of a larger whole. Thus, in this sense, Mary is the 'SUBJECT OF' vanished. Similarly, in They helped Mary, we can see a part-to-part relation between they, as subject, and, in varying accounts, the verb helped or alternatively the 'predicate', in one sense in which this term is used, helped Mary. But there is also, naturally, a relation between each part and the whole. In this sense Mary is the 'SUBJECT OF', instead, the sentence Mary vanished. Its role in either relation is what many linguists, who include the authors of the Cambridge Grammar, call a 'FUNCTION'. In the example They helped Mary, or the construction of sentences with such a structure in general, they has the function of a subject; *helped Mary* has in turn the function of a predicate. Within *helped Mary*, there is a relation, of one part to another, in which *Mary* is the 'OBJECT OF' helped. But Mary can also be said to bear a part-to-whole relation as the 'OBJECT OF' the construction in which they are combined. This

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is, as many will describe it, the whole sentence; in which *Mary* has the function of an object, as *they* that of subject.

The usual tendency, in recent decades, has been to take relations of parts to wholes as primary. Given, for example, that X is the subject of a sentence, and as such combines in a construction with Y, it follows that there is a corresponding part-to-part relation between them. In this spirit both relations have traditionally the same name. It is possible, however, that such a correspondence holds for some relations, or some 'functions', only. Thus there might in principle be cases where, in different constructions, an X has similar functions in relation to the whole. From this it would in general follow that it bears just such a part-to-part relation to a Y. But in one of these constructions we may wish to argue that the relation between X and Y is different. An account based, therefore, on external roles or 'functions' might not be matched entirely by one based on internal structures.

Whether this is so is one point that will have to be explored in later chapters. For the moment, however, a relation within a construction, between one member and another, can be distinguished in principle from that of any individual member to the unit forming, in the weaker definition, the construction itself. But relations of the part-to-part type can in turn be factored into more specific forms of combination, whose scope can logically be separated.

The most obvious, from one viewpoint, are of sequence. *They*, for example, precedes *helped*; and, within the predicate *helped Mary*, that in turn precedes *Mary*. If this were all, the structure of the whole could be described quite easily. Thus, as many linguists will indeed describe it, units of one category, of which *helped* is a member, can combine in a specific order with members of another category, which is that of *Mary*. The two together form constructions of the category of *helped Mary*; and these as wholes can form part of a larger construction, following members of a category which includes *they*.

But if traditional accounts are right that cannot be all. Take, for example, a sentence such as *Then came Mary*. The order of subject and verb is exceptionally, as it is said, 'inverted': first *came*, then *Mary*. But this implies precisely that the role of *Mary*, as the subject of a sentence where the verb precedes it, is the same role that it has in sentences such as *Then Mary vanished*, where the verb follows it. Being a subject, that is, must be one thing; and, in older treatments, it is this that both constructions fundamentally have in common. Whether subjects come before or after verbs is something else, and in many accounts is one of the means by which the

fundamental relation can be 'MARKED' or 'REALISED'. As one part to another, *Mary* was again the subject of *vanished*. Its realisation followed then a normal or, as many would now call it, default pattern: subject first, verb following. But another possible construction would be that of *Then came Mary*, where, in a position following a unit like *then*, the same part-to-part relation could be realised, under further more specific restrictions, with 'inversion': first verb, then subject. In another view, the fundamental relation might still be of sequence. But, in sentences like *Then came Mary*, it can exceptionally be altered. While the order, however, changes, the role of *Mary* as the subject is again preserved.

For 'means of realisation' compare, among earlier treatments, that of Paul (1920 [1880]: 123f.). Such means would also include, for example, the inflection of *they* as subject, in *They helped Mary*, as opposed to that of *them* as object, in *Mary helped them*. They would also include relations other than of sequence, in which categories are linked by specific patterns of covariance. In, for example, *Mary vanishes* the verb is said to 'AGREE WITH' its subject. It has a form, that is, which like those of, among others, *sings* or *appears*, is compatible with singular subjects such as *Mary*. *Vanish*, however, is a form compatible with subjects that are plural, such as *they* in *They vanish*; and, with many subjects with which verbs in one form are compatible, another form may not be. In that way the inflection of the verb, as traditionally 'third singular' or otherwise, CO-VARIES in part with the number, as it is called, of the unit that stands in the subject relation to it.

This co-variance is independent of the order of units. In, for example, *Then comes the slow movement* the verb agrees similarly with a singular *the slow movement*. To describe, then, combinations such as *Mary vanishes* is in one way or another to describe both. But the co-variance is also independent of the relation which, in one account, is being realised. The verb in *Mary vanishes* is traditionally 'finite', and it is such verbs that agree with subjects. In, for example, *They saw Mary vanish* there is no agreement, and the verb is 'non-finite'. But most linguists will again see *Mary* as a subject. Although the structure in which it stands is partly different, there is something in common between its role here and its role in *Mary vanishes*, with agreement but the words in the same order; and again its role in *Then came Mary*, with no agreement and a different order.

This 'something' is, in one view, an abstraction from the meanings of such sentences. A word, for comparison, is established by a correspondence between sets of forms, like *vanished*, *vanishes*, and so on, and an aspect of their meanings that they have in common. This is the lexical unit named

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conventionally in the infinitive: 'to vanish'. A role in syntax, such as that of subject, is established in turn by a correspondence between, on the one hand, ways in which the members of a category can combine with others to form sentences and, on the other, common aspects of the meanings that these sentences will have. Thus both Mary vanishes and, for example, Jane walked in are combinations used in talking about things that individuals do. As such they would illustrate what Bloomfield, for example, called the 'actoraction construction' (1935 [1933]: 184). This aspect of their meaning they again share with, among others, Then came Mary or, at a sufficient level of abstraction, Soon followed a series of earthquakes. But the relation here between, for example, came and Mary would again be different from the one that would hold between *helped* and *Mary* in a sentence such as *They* helped Mary. This illustrates instead what Bloomfield called the 'action-goal construction' (192); an aspect of meaning common to both this and, for example, I photographed the elephants being of an act directed towards other individuals.

The reaction to this way of thinking was again the distributionalism rampant in American linguistics, in particular, in the 1950s. In alternative terms, however, what is crucial is another relation of co-variance. In a passage central to his earliest accounts of syntax, Chomsky focused on the difference between, for example, John admires sincerity and Sincerity admires John. In a 'full-fledged grammar', as he saw it, 'we will have to place . . . restrictions' on the verbs which can be chosen with specific subjects and specific objects, 'in order to permit such sentences' as the first, but exclude "inverse" non-sentences', such as the second. Similar 'selectional dependencies', as he described them, hold for John plays golf, as compared with Golf plays John, John drinks wine, as compared with Wine drinks John, and so on (Chomsky 1957: 42 f.). The context in which he was arguing need not immediately concern us. But 'selectional dependencies' are evidently relations among lexical units, where 'the choice of verb' co-varies with that of both a subject and an object. 'To admire', as others might have put it, makes sense much more readily, in one relation, with 'John' or with nouns such as 'girl' than with 'sincerity' or 'earthquake'. Compare, for example, The girls admired us with The earthquake admired us. In the other relation 'to drink', for example, will make sense more readily with 'wine' than with, among others, 'sincerity'. Compare I drank his sincerity.

The term 'selection' has been used, as we will see, of other relations and of other 'dependencies'. In another tradition, however, these are relations in which individual units 'COLLOCATE' with other individual units. In part, as is

clear, they reflect connections independent of particular languages. A word denoting a substance such as, for example, wine will refer to something that we can expect to be drunk rather than to something that performs an act of drinking. But in any language there are what we can call 'COLLOCATIONAL RESTRICTIONS', which go beyond what simple knowledge of the world predicts. In English, for example, one is likely to talk of 'building' a house rather than 'constructing' a house or 'making' a house; of 'waging war' or 'waging' a campaign rather than 'waging terror' or 'waging' an invasion; of 'poaching' an egg rather than of 'poaching' noodles. These are aspects of, specifically, the meaning of words such as 'to build', and concern precisely the ways in which they are combined with others, in the relation, more generally, of verbs to objects.

We are dealing, then, with more than one kind of relation; and while the notion of constructions in the weak sense seems sufficiently straightforward, the 'constructions' they may have, seen as general patterns of combination, are more complex. Take, for another example, a sentence such as The house in Cambridge, though, they did not build. The house in Cambridge may be said to be the object: of the whole, again, or of build. In that respect, its construction is in part like that of Mary in They helped Mary, or this house in They built this house. But it is itself a member of a larger unit, or 'construction' in the weak sense, in which it combines, as what is often called a 'topic', with the whole of they did not build. The relation between them will be realised, in one view, by their order: topic first; then what is sometimes called a 'comment'. It may be further realised by an intonation in which Cambridge and not are emphasised: thus, with the most prominent syllables in capitals, The house in CAMbridge, though, they did NOT build. This relation of the house in Cambridge to they did not build, and its relation to build or did not build, are both part of the 'manner' in which these units are, in the terms of Johnson's definition, 'put together'.

Other constructions will include, or will include those of, *in Cambridge*; of a larger unit, as most linguists will describe it, *house in Cambridge*; and so on. An objective of the general study of syntax, which has been at the centre of the theory of language since the 1950s, has been to identify the properties that constructions, or types of construction, have in common, and in that way to reduce the structure of sentences to general principles, applicable to English and to any other language equally. Our problem, at one level, is how far this aim has been achieved. For, in another view, there may not be such general principles, other than that, within sentences, both words and larger units do stand in specific relations.

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Where shall we start?

I have called this book 'a critical survey'; and by this I mean to signal, in particular, that it is not a systematic treatise. There have been many different 'theories', as they are termed, of syntax; and it is not clear that a helpful way of trying to move forward is to propose what would amount to yet another. As a survey, moreover, it is necessarily selective and discursive. Many treatments offer insights that are worth discussing, including many that are now seen as outdated. But they are typically partial insights; there is much in any account that duplicates what can be found in others; and we might gain little, other than an understanding of the history of research in this field, by a comprehensive study and evaluation of the work of every relevant school or scholar. What will serve best will be an unfolding exploration of particular problems, in the order in which they can most naturally be taken. And, as generally in this style of exposition, it will sometimes be unhelpful to impose more structure than competing arguments allow.

I am writing, however, at a time when, in the English-speaking world especially, one treatment has not only more adherents than any other but may seem to many to have solved, already, the main problem I have raised. By this I mean the one developed primarily by Chomsky. Its origins can be traced back partly to the formulation of phrase structure grammar in the 1950s, and of what was then called 'transformational grammar', as a way of remedying its limitations. This was, of course, the earliest foundation for his theory of language as a mental faculty, developed over the 1960s and 1970s. The following decade was the period, more particularly, of what textbooks labelled 'Government and Binding Theory', to be superseded in the 1990s by what Chomsky himself presented as a 'Minimalist Program'. But one idea historically common to both is a specific system of phrase structure grammar, which became known, after a notation Chomsky introduced in 1970, as the 'X-BAR' system or as 'X-BAR SYNTAX'. Versions of this are now enshrined, as we will see, in textbooks; and the assumptions that underlie it, though reworked in varying ways in different technical formulations, have continued to inform both Chomsky's work and that of many other linguists who have been influenced by him. There then they are and there they have to be engaged with. 'You will have to go a long way round', as Basil Bunting wrote of the Cantos of Ezra Pound, 'if you want to avoid them' (anthologised in Larkin, 1973: 322).

The aim of this book is not merely to evaluate the 'theory', as it is again called, that takes Chomsky's work as its foundation. There may be readers

who will be tempted to take it that way: as an attack, to put it crudely, on 'generativism'. There may equally be others, who are not admirers of Chomskyan syntax, who will be impatient of the respect I pay to generativist treatments. But a similar 'theory' of phrase structure has become so widely accepted that it will be helpful to begin by addressing it directly. It is in essence very simple; in the abstract, therefore, it is very easily explained; and the true complexity of syntax, or its complexity as I perceive it, emerges as the simplicity it imposes is compared with that of other 'theories' and with facts established in the description of particular languages. For this purpose evidence from English, and to some extent from other well-known European languages, will in practice be sufficient.

The term 'theory' has been put, four times already, in inverted commas. These are meant seriously, for reasons that will become clear gradually as this survey proceeds. I will therefore try to avoid talk of both theories and hypotheses, except when citing or responding to other writers, until, in the final chapter, we can ask in retrospect where such terms can legitimately be used. But X-bar syntax is 'theory-like', at least, in the degree of abstraction that it achieves from any individual construction, in any individual language. Let us therefore begin, in the next chapter, by focusing attention on this system in particular, in the form it had reached by the end of the last century.