1   Introduction: theoretical and descriptive approaches to the study of the verb in English[1]

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A verb is a power in all speech,
Rings through prose and verse.
It brings to birth.
> Elizabeth Jennings,
> *Parts of Speech,* in *Times and Seasons*

1   Introduction

Verbs are found in virtually all the languages of the world (Lyons 1977: 429, Allerton 1982: 1), and throughout history their semantic and syntactic properties have interested philosophers and grammarians alike. As early as *c.* 100 BC Dionysius Thrax stressed the importance of the verb (*rhema*) which he defined in his *Téchne grammatiké* as 'a part of speech without case inflection, but inflected for tense, person, and number, signifying an activity or process performed or undergone'. This definition brings out that the very earliest grammarians were interested in both formal and semantic, or 'notional', characterisations of the word classes. Later grammarians, such as Apollonius Dyscolus in the second century AD, became more interested in the distributional (i.e. syntactic) properties of the word classes.[2] Linguists of all later centuries have been much influenced by the works of these early grammarians, to the extent that, while there might still be disagreement as to whether, for example, pronouns form a separate word class or are simply to be regarded as nouns, no grammarian today would deny that verbs constitute a relatively easily delimitable word class.

While it is true that contemporary linguists and grammarians agree upon the existence of the grammatical class of verb, their approaches to the study of the verb are nevertheless quite varied. Linguists with theoretical orientations have studied the verb from the perspective of X-Bar Theory (Jackendoff 1977), while linguists with both theoretical and descriptive orientations have focussed more on the role of the verb in grammar of English (Huddleston 1976a, 1984, Matthews 1981, Hudson 1990). Descriptive linguists have provided general descriptions of the English verb (Palmer 1987, 1990),

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as well as specific descriptions of particular complementation patterns (van Ek 1966) or verb forms, such as the infinitive (Andersson 1985, Mair 1990, Duffley 1992). Finally, semantically oriented linguists have been concerned with topics such as the valency of verbs (Allerton 1982), the particular semantic roles that verbs determine in a clause (Fillmore 1968, Schlesinger 1994 and this volume), and the manner in which verbs express tense and aspect (Comrie 1976, 1985, Declerck 1991).

We take the view in this book that an adequate understanding of the verb in contemporary English is best achieved if theoretical treatments of the verb are accompanied by studies that describe its usage. To provide this view of the English verb, we have divided the book into two parts. Part 1, 'Theoretical approaches to the study of the English verb', contains chapters that provide differing theoretical perspectives on the syntax and semantics of the English verb. Part 2, 'Descriptive approaches to the study of the English verb', contains chapters in which analyses of computer corpora are conducted to trace the development of certain verb forms in English, to study various types of verb complementation, and to detail the usage of verbs in different varieties and genres of English. In the remainder of this chapter, we provide an overview of issues that have played a role in theoretical and descriptive treatments of the verb, and detail how these studies relate to the topics explored in this book.

2   Theoretical approaches to the study of the English verb

In this section we deal with a number of issues that have been important in theoretical work dealing with the verb. More specifically, we discuss the terminological problems of classifying verbs and verb-related elements, the 'determining' properties of verbs, verb complementation, the semantics and pragmatics of verbs and verbal combinations, and the notions of tense, aspect, voice and modality.

2.1   Problems in the classification of verbs and verb-related elements

Because the verb has been so widely discussed, its treatment within the grammar of English has raised a number of questions about classifications of the verb and verb-related elements. These questions range from whether the function of verb complementation ought to be kept distinct

from the function of verbs as predicators within the clause, to whether the categories of *complementiser* and *Comp* really exist.

In X-Bar Theory, a distinction is made between *complements* and *adjuncts* in the Verb Phrase (Jackendoff 1977). Complements are more closely related to the verb than adjuncts. More specifically, complements are obligatory and analysed as sisters of the head verb, while adjuncts are optional and analysed as sisters of V'. Matthews (1981: 123–141) uses the term adjunct in a different sense. He distinguishes adjuncts from *peripheral elements*. The former are more closely related to the verb than the latter, but less closely than complements. Yet another approach is found in the work of Huddleston who subdivides adjuncts into *modifiers* and *peripheral dependents* (1984: 223–225). We encounter terminological confusion in the area of complementation as well. As Ransom (1986: 29, note) observes, the term *complement* has been used in many different senses to indicate not just constituents that are regarded as complements of verbs, such as direct objects, but nominal clauses functioning as the subject of a clause as well.

To clarify the confusion of how verbs and verb complements ought to be classified within the grammar of English, Charles F. Meyer ('Grammatical relations in English') argues that there need to be two distinct levels of grammatical relations: *general* functions and *clause* functions. Individual verbs, for instance, impose syntactic and semantic constraints on the constituents they can take, a general function of verbs characterised by the notion of 'verb complementation'. In addition, independent of the constraints it imposes on other constituents in the clause, the verb has the function of 'predicator', a clause function indicating a particular relationship between the verb and other clause functions, such as subject, object, adverbial, and complement.

Most contemporary theories of syntax maintain that there is a word class called *complementiser* containing words such as *that*, *if*, *whether*, and *for* and that these words are included within an abstract functional category called *Comp*. This category introduces clauses that complement a preceding verb. However, as Richard Hudson argues in 'Competence without Comp?', the existence of this category has never been satisfactorily established. The class of complementisers is very heterogenous, with some complementisers behaving like interrogative pronouns while others behave like subordinating conjunctions or prepositions. Because complementisers do not form a unified word class, it is questionable whether the abstract category Comp is warranted.

2.2   The 'determining' properties of verbs

For linguists of all persuasions, verbs, more than any other word class, can generally be characterised as 'determining' elements. There are a number of ways in which this can be said to be the case.

Firstly, verbs are said to 'govern' the dependent elements that follow them (or precede them, depending on whether we are dealing with a head-first language or a head-last language). This government relation is morphologically visible in many languages, for example on Noun Phrases through different case forms (e.g. German direct objects require a special form of the Noun Phrase: e.g. *Ich sah den Mann*, 'I saw the man', with objective case on the definite article of the direct object, but not *Ich sah der Mann*, with nominative case on the definite article). In English the reflex of verb-government is visible only on pronouns.

Secondly, and this really concerns a two-way dependency, verbs agree with their subjects (and in some languages with their objects) in one or more features such as number, person and gender. It should be borne in mind, however, that neither agreement nor government are notions that exclusively concern verbs. Other elements, such as for example nouns, can also trigger agreement (with adjectives), and prepositions, like verbs, are also said to govern their objects.

The third way in which verbs can be said to be determining elements is also not exclusively, but nevertheless most markedly, a verbal property, and that is that they are instrumental in licensing the presence of what Tesnière (1953, 1959) (working in the field of dependency grammar) has called the *actants* ('performers') of a proposition.[3] By analogy to chemistry the term *valency* has been used to refer to the number of performers (*valents*) a verb takes (cf. Allerton 1982: 2). Consider in this connexion a simple sentence such as (1) below, the performers of which are *Sandra*, *Martin* and *a joke*:

(1)   Sandra told Martin a joke.

In valency theory terms the verb *give* is *trivalent* in that it takes three dependents, corresponding to the functional categories of subject, indirect object and direct object respectively.

The relationship between the verb and its performers in a sentence like (1) is not viewed in the same way by all linguists. Thus, while for dependency grammarians (and some others, e.g. Huddleston 1984: 180) the subject is one of the verb's complements, this is not the case for many other linguists. For those working in the generative tradition a distinction is made between *subcategorisation* and *selectional restriction* to characterise the relationships the verb enters into with other elements. Subcategorisation refers to the idea that a head (noun, verb, adjective or preposition) syntactically requires the presence

of a constituent of a particular type (e.g. the adjective *fond* requires a following *of*-phrase). Selectional restrictions (in Chomsky 1965) concern the compatibility of semantic features. For example, in English sentences containing the verb *dream* both the subject and the verb must share the feature [+animate]. If the subject lacks this feature unacceptability results (**The CD was dreaming*). Where Verb Phrases are involved, subcategorisation operates only on postverbal arguments (the so-called *internal arguments*), whereas selectional restrictions operate on both internal and *external arguments* (i.e. subjects). As noted, the syntactic treatment of selectional restrictions in terms of features outlined here is that of Chomsky (1965). Anomalous sentences like the one with the dreaming CD cited above are now sometimes argued to be pragmatically, not grammatically, deviant (Horrocks 1987: 36). Alternatively, selectional restrictions can be handled in terms of thematic roles (agent, patient, experiencer etc.), as will be explained presently.

Chomsky has recently replaced the term subcategorisation and now uses *c-selection* (categorial selection; Chomsky 1986a: 86). A further notion, *s-selection* (semantic selection), has also gained currency and concerns the idea that verbs are lexically marked with regard to the thematic roles they assign to their internal and external arguments. The earlier selectional restrictions on arguments can then be handled in terms of a combination of the meaning of their predicates and the s-selectional properties of those predicates (for example if an argument has the thematic role of experiencer it must be [+animate]). It has also been proposed that we can dispense with c-selection because the c-selectional properties of lexical items can be predicted from their s-selectional properties. (See Chomsky and Lasnik 1993; for textbook discussion see Radford 1988: 378ff, Cowper 1992: 57ff.) Thematic roles are relevant to the generativists' view that subjects are not complements of verbs. The reason for this is that it is thought that it is not the verb alone that determines the thematic properties of its subject, but the Verb Phrase of which it is a part (see Marantz 1984, Chomsky 1986a: 59f; and Rothstein 1983 for a diverging view).[4]

To define grammatical functions (GFs) such as subject or object, it has been customary to associate particular thematic (or semantic) roles with particular GFs. For instance, subjects are typically agents, direct objects patients, indirect objects benefactives, and so forth. In the case of the object, however, this type of analysis is problematic. As I. M. Schlesinger demonstrates in 'On the semantics of the object', because objects in English can take almost any semantic role, it is not possible to discuss constraints on objects in terms of semantic roles. Instead, Schlesinger argues that other semantic considerations must be taken into account to distinguish direct objects from indirect objects and objects of prepositions. For instance, while direct objects express the semantic notions of 'Completion' or 'Feat', objects of prepositions do

not. In addition, indirect objects are subject to processing constraints, such as
the 'Recoverability Constraint', which stipulates that prepositions associated
with indirect objects must be immediately recoverable or a verb is blocked
from being ditransitive, and the 'Garden-path Constraint' which accounts
for the unacceptability of the double-object construction in certain cases.

2.3   Verb complementation

Of the different types of relationships between verbs and their argu-
ments those between the verb and its internal arguments have always received
the most attention. These relationships are studied under the general heading
of *verb complementation*, a notion which is closely related to the concept of subca-
tegorisation which was discussed in the previous section. Verb complementa-
tion is a term that should be used with some caution because, as Matthews
(1981: 142–143) notes, there is considerable variance in how this notion is
applied. In transformational-generative grammar, as we have seen, verb com-
plements are obligatory constituents following verbs and are distinct from
adjuncts, which are optional. In more descriptively-oriented grammars verb
complements are given a more semantically based characterisation as ele-
ments that are 'required to complete the meaning of the verb' (Quirk et al.
1985: 65). Verb complementation is part of the more general notion of comple-
mentation, a grammatical relation that stands in opposition to other gramma-
tical relations, such as e.g. apposition, modification, parataxis and
coordination. For general discussion see Matthews (1981: 223f), and for a discus-
sion of the complementation-apposition gradient see Meyer (1992: 51f).

The differences between grammarians in approaches to verb complemen-
tation concern a number of areas which we will now briefly review.

Consider first the Verb Phrase. For descriptive grammarians Verb Phrases
often consist only of verbs (cf. Quirk et al. 1985: 61–62). A sentence like (2)
below, is analysed as in (3) by Quirk et al.:

(2)   They have devoured all the Belgian chocolates.
(3)
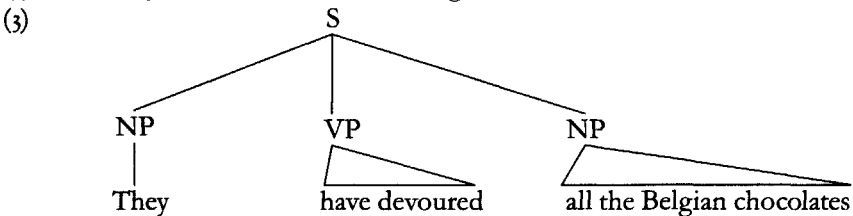
Within the VP a distinction is made between auxiliary verbs (*have*) and main verbs (*devour*), but no further structure is assigned. Notice that the direct object NP is immediately dominated by the S-node. Despite the lack of structure inside the VP, Quirk et al. do suggest that in VPs containing auxiliary verbs the various verb sequences are 'telescoped' into each other (1985: 151). This notion is not made precise, but the suggestion is that the verbs in some sense select each other from left-to-right. Nevertheless, the overall picture is one in which 'the verb phrase operates as the V element in a clause' (1985: 61). The rationale behind Quirk et al.'s treatment seems to be the same as that advocated in Palmer (1987), namely the idea that a complex verb sequence like *may have been devoured* is a 'form' of the verbal paradigm in much the same way as the different elements of the Latin and Greek conjugation classes.

Since the early days of transformational grammar the VP has been a phrase which not only contains verbs, but also verbal complements. (2) is analysed as in (4) in Chomsky (1957: 26, 39).

(4)
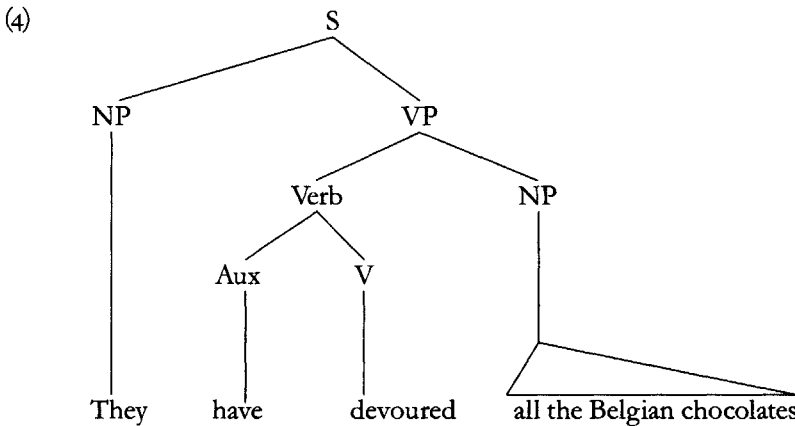
Notice that (4) is similar to (3) in regarding the verb sequence *have devoured* as a verb form.[5] The reason for taking complements to be part of VP is that there is a close relationship between the head verb and its complements, as we have seen. Further reasons are discussed in Aarts (1993). In current versions of generative theory verbal complements are generally still analysed as sister constituents of the verb inside VP (though see Chomsky and Lasnik 1993 for some recent discussion of this issue).

A position which is intermediate between that of Quirk et al. and generative linguists is Huddleston's. He would analyse (2) as in (5) (1984: 112):

(5)
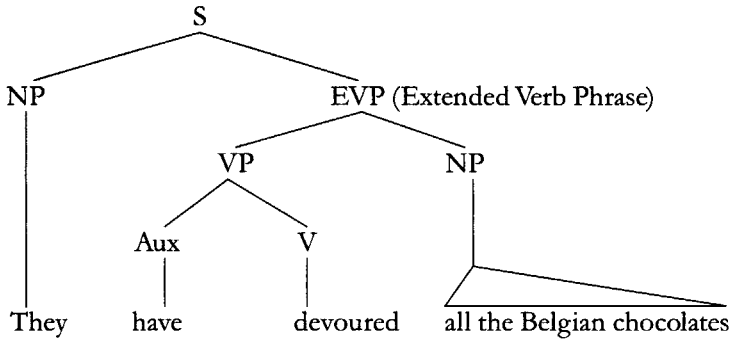
The VP is treated essentially as a verb form, as in the Quirk et al. framework, whereas the posited EVP-node is reminiscent of the Chomskyan VP.

The problem of how to treat auxiliary verbs in English is a complex matter. There seems never to have been agreement among grammarians on their analysis. The *Syntactic structures* analysis in (4) above was modified in the *Aspects* model and has undergone various changes in the course of time. In the recent literature, (2) and structures involving the progressive auxiliary *be* have the D-Structure in (6a) and the S-Structure in (6b).

(6)   a.

        b.
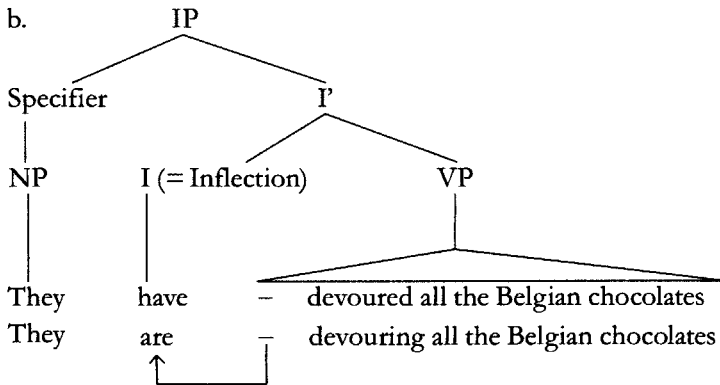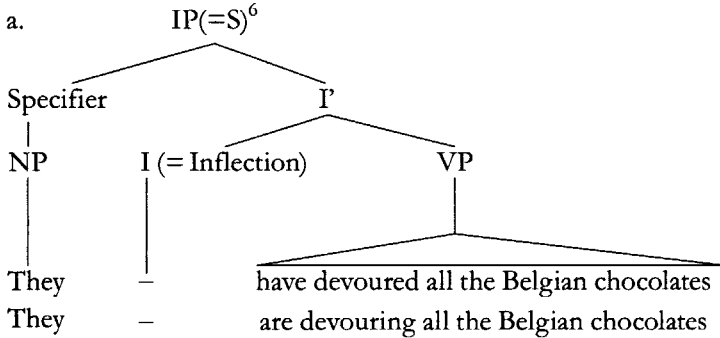
Under this view the aspectual auxiliaries originate in VP and are moved into the I-node to acquire tense features. This movement does not take place (and possible aspectual auxiliaries therefore remain inside VP) if the sentence contains a modal verb. Modals are base-generated in the I-position preventing possible aspectual verbs from moving up.[7] Under the so-called *Split INFL Hypothesis* there have been proposals to 'open up' the inflectional node into a Tense Phrase (TP), Agreement Phrase (AgrP, possibly itself split up) and a Negative Phrase (NegP). For discussion, see Pollock (1989) and Chomsky (1991, 1992).

Space limitations prevent us from outlining all the different approaches to the analysis of constructions involving auxiliary verbs. However, we can give an idea of the complexity of the areas of controversy by listing some of the questions that have been investigated:

- Is there a separate Aux-node, as in Chomsky (1957, 1965)? And, if so, is this node dominated by a 'Verb' (Chomsky 1957: 26, 39; see (4) above) or by 'S' (Chomsky 1965: 68)?
- Are modal auxiliaries to be treated as essentially the same as all the other auxiliaries (i.e. are they all dominated by Aux), or should we regard modals as different and posit a separate node 'M', as in e.g. Jackendoff (1972: 106)?
- Alternatively, if we do treat the modals as different from other auxiliaries, are they perhaps dominated, not by 'M', but by an inflectional category 'INFL' (or 'I' for short), as in Chomsky (1986b: 72; see (6) above)?
- Are auxiliaries main verbs, as in Ross (1969), Huddleston (1974, 1976a, 1976b), Emonds (1976), Pullum and Wilson (1977) and Warner (1993)?
- Alternatively, do we regard auxiliaries as in some sense modifying the main verb + complement sequence, as in Jackendoff (1977), i.e. are auxiliaries to be treated as Specifiers of the VP in the X'-theoretical sense?
- Or are auxiliary + main verb sequences perhaps to be analysed as complex verb forms, as in Palmer (1979, 1987, 1990) and Quirk et al. (1985); see (3) above?
- Do auxiliary verbs, or a subset of them, move from VP to another position in the sentence in which they occur in order to acquire tense features (cf. (6) above), or, conversely, does tense 'hop' onto the auxiliaries? See Pollock (1989), Chomsky (1986b, 1991, 1992).

The representations in (3), (4) and (5) concerned straightforward direct object NPs. There has also been a great deal of debate over the question how we should treat such sentences as (7) below:

(7)   Oswald believed the outcome to be a disaster.

The problem concerns the functional status of the postverbal NP. Is it to be regarded as a direct object or as the subject of a complement clause? In a spir-

ited debate on this issue in the early seventies the main protagonists were Chomsky, who favoured the latter position (Chomsky 1973), and Postal who upheld the former (Postal 1974). Postal defended a rule of Raising-to-Object in which the subject of a Deep Structure complement clause was raised to the matrix clause object position. This rule accounted for the intuition that the postverbal NP in sentences like (7) functions at the same time as the direct object of *believe* in the matrix clause and as the subject of *to be* in the subordinate clause. Numerous papers have been published both for and against the rule. Among these the most important are Bresnan (1976), Lightfoot (1976) and Bach (1977).

In the eighties attention turned to structures like (8), which is semantically closely related to (7):

(8)   Oswald believed the outcome a disaster.

Again the problem is the status of the postverbal NP. Traditionally it is analysed as a direct object and the predicative phrase following it as a complement or attribute of the object. (See Matthews 1981: 184f, Aarts and Aarts 1982: 141–142, Huddleston 1984: 194f; Wekker and Haegeman 1985: 79; Quirk et al. 1985: 1195f, Burton-Roberts 1986: 81f, and Brown and Miller 1991: 333. See also the theoretical proposals of Williams 1980 which are very much in line with this view.) More recent analyses, foreshadowed by Otto Jespersen in the early part of the century, treat the string *the outcome a disaster* as a clausal unit, a so-called *Small Clause*. (See Stowell 1981, Chomsky 1981. For a discussion of the properties of Small Clauses and the reasons for positing their existence, see Aarts 1992.) The chief rationale behind this analysis is the view that the postverbal NP in (8) is not thematically related to the preceding verb. (Oswald did not believe 'the outcome', he believed 'that the outcome was a disaster'.)

Related to what we have in (8) are constructions like (9) and (10):

(9)   He drank the beer cold.
(10)   She burnished the gold smooth.

The sentences in (9) and (10) differ from (8) in that the NPs *the beer* and *the gold* clearly *do* have a thematic relationship with the preceding verb. APs such as *cold* and *smooth* have been analysed in various ways in the literature: as object attributes, as complements of the matrix verb or as predicates of adjunct Small Clauses with an empty subject.

Consider also (11):

(11)   He cycled home delighted with the progress he had made that day.